

Engineering for Sustainable Growth of the Global Community



Integrated Report 2025

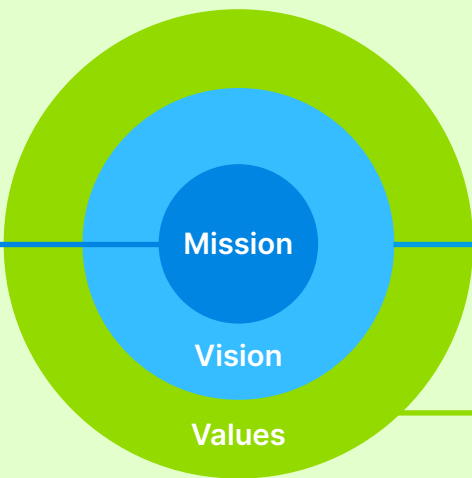
Year ended March 31, 2025

Engineering for Sustainable Growth of the Global Community

TOYO's MVV

Mission, Vision, Values

Engineering for
Sustainable Growth
of the Global Community



Global Leading
Engineering Partner

Integrity, Creativity,
Diversity, Learning, Team

About TOYO's
MVV

[Click here!](#)



Editorial Policy

TOYO has positioned Integrated Report 2025 as a platform for constructive dialogue with its shareholders, investors, and other diverse stakeholders in Japan and overseas, and prepared it with the aim of carefully communicating its management policies, business model, and value creation story in both non-financial and financial terms. In this report, we explain our efforts to sustainably enhance our corporate value through non-financial capital—human resources, technologies, group companies, and other intangible assets that are the source of our competitive advantage over the medium to long term—as well as financial capital. This report is structured to convey the overall picture of TOYO's value creation in reference to the Japanese Ministry of Economy, Trade and Industry's Guidance for Collaborative Value Creation and the IIRC's International Integrated Reporting Framework.

Report period

April 1, 2024 to March 31, 2025
(The report includes some activities
before and after the report period)

Note concerning forward-looking statements

The forward-looking statements, plans, strategies, and other information contained in this report are based on our judgment and information available to us as of the date of publication and involve known and unknown risks, uncertainties, and other factors. They are not guarantees of future performance or results; actual results may differ substantially from the forward-looking statements herein. Therefore, we ask that you use this report at your own discretion after checking it against other information. We assume no responsibility whatsoever for any damage resulting from the use of this report.

Contents



Introduction

TOYO's MVV, Editorial Policy,
Table of Contents.....01

TOYO AT A GLANCE02



Message from the President03



Message from the CFO06

**Financial and Non-Financial
Highlights**08



Value Creation Story

Value Creation Model.....09

Value Creation History12

Long-term Management Vision14

TOYO's Connection to Society.....15

Dialogue Between the President and
an Expert 17



Business Model

Overview of TOYO's Business.....20

EPC Business21

Non-EPC Business22



Value Creation Strategies

Medium-term Management Plan29

Sustainable Technology and
Business Development Strategy30

Advanced EPC Operation Strategy33



Driving Force for Value Creation36

Accumulating Capital37

Defining Value-Creating Human Resources ...38

Defining Unique Technology39

Defining Global Operations.....41



Sustainability

Initiatives for Sustainability45

Materiality (Important Management Issues) ...46

Aim to Realize an Environmentally Friendly
Society48

Enrich People's Lives.....52

People of Diverse Backgrounds
Engage in Active, Meaningful Work.....57

Establish an Organization with
Integrity and Discipline64



Corporate Data

Five-Year Financial Highlights74

ESG Data75

Corporate Information.....77

TOYO AT A GLANCE

TOYO builds plants and factories that form the infrastructure of daily life around the world, including fuel to power cars, plastics to make clothing and smartphones, and cold medicines and other pharmaceuticals. We construct the massive facilities in which these everyday things are manufactured.

Recently, we have devoted energy toward developing technologies for using geothermal heat, which is drawing attention as a renewable energy source, and fuel ammonia and synthetic fuels, which are promising sources of clean energy. Every day, we are breaking new ground to help realize a sustainable society.

OUTLINE

Years since founding

64



Number of employees



6,229

Number of domestic and overseas EPC-related locations

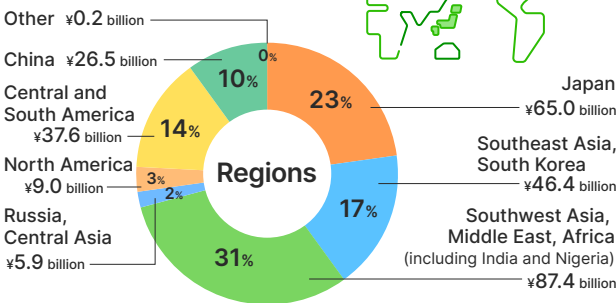
16 locations in 11 countries including India, Indonesia



BUSINESS

Net sales in FY2024 **¥278.0 billion**

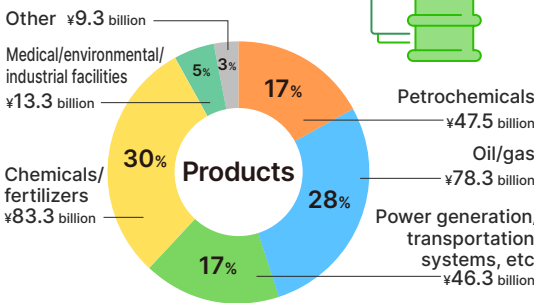
Net sales by region



We have implemented projects in every corner of the world with a focus on Southwest Asia, the Middle East, and Africa; Japan; and Southeast Asia and Korea.

	Ordinary income	Net income	ROE	Dividend payout ratio	Dividend
FY2024 results	¥6.4 billion	¥2.0 billion	3.3%	72.5%	¥25
FY2025 outlook/projection	¥6.5 billion	¥5.0 billion	8.1%	29.3%	¥25

Net sales by product



Our business covers essential areas for energy and daily life with a focus on chemicals and fertilizers, and oil and gas.

MESSAGE



Seeking sustainable growth through the power of co-creation

Eiji Hosoi

Representative Director, President & Chief Executive Officer

Profile

Eiji Hosoi joined the Company in April 1982. He gained extensive experience leading projects in Saudi Arabia, Thailand, Indonesia, India, and other countries, and has seen many plant construction projects through to completion as a project manager. From 2015 to 2018, he served as President of Indonesian subsidiary IKPT, guiding its growth into a company capable of constructing plants for oil and gas, chemicals, fertilizer, power generation, infrastructure, and more. In 2019, he was appointed as the director of the Plant Business Unit, where he established a carbon neutrality team and took other steps to develop new business fields to complement existing operations. He was appointed Representative Director, President & Chief Executive Officer of the Company in June 2023.

Challenges and measures for boosting net income

In fiscal 2024, the Company reported net sales of 278.0 billion yen and consolidated net income of 2.0 billion yen, below the target of 6.0 billion yen. The main reasons for the failure to reach the target were construction delays and additional costs incurred for a pharmaceutical plant in Japan and a gas-fired power plant in Brazil, which is being implemented by a subsidiary. The delays and costs stemmed from a combination of factors, including failure to reach conclusions in lengthy discussions with the clients, which prevented the Company from recognizing additional income. Two biomass power generation projects in Japan also experienced delays due to adjustments made during commissioning. However, these projects and two other biomass projects are all scheduled for completion in fiscal 2025.

Given these circumstances, we enhanced Toyo-Japan's support system for Brazilian projects to complement its project execution capacity. Additionally, in January 2025, we expanded an existing organization to establish a new Project Management Division, enhancing our risk management system and establishing systems that

provide stronger risk management and checking and advisory functions for project initiatives from the pre-order stage for both the Company and our subsidiaries.

The projects that are not as profitable as expected were ordered during the unique business environment of the COVID-19 pandemic. Nonetheless, we plan to complete these projects in fiscal 2025, thus removing their negative impact on our earnings. When I took office as president in June 2023, I expressed my belief that we would never accept orders with unacceptable risk/return profiles. I intend to maintain this policy by making the most of my experience and perspective as a leader who has completed a number of projects on the front lines over many years. We have created and effectively operated a double-screening system to assess the inherent risks, contract terms and conditions, and resource suitability from multiple perspectives before and after projects are awarded.

Fiscal 2025 outlook and foundation for further growth

Improving profitability is one of our top priorities. The keys to improving profitability are managing risks and improving productivity through Digital Transformation of

TOYO (DXoT). Having completed system development in fiscal 2024, in fiscal 2025, the scope is expanding. We have already begun to apply Advanced Work Packaging (AWP)*¹ to totally streamline and visualize the design, procurement, and construction of several EPC projects, and the approach has proven capable of expediting construction and improving both productivity and profitability. We have also put EffiMate™*², our proprietary system for optimizing scheduling and estimating resources, into practice. Our Corporate Management Cockpit visualizes the soundness and safety of our projects—for example by simulating profit generation and analyzing resources through completion—and supports our decision-making by narrowing down large sets of projects to a select few candidates. Our next step is to further apply and upgrade these DX tools and recover the capital invested in system development in the form of profits.

As the final year of our Medium-term Management Plan, fiscal 2025 is an important milestone for our next stage of growth. In the EPC business, FPSOs contribute significantly to earnings, with OFS Malaysia and OFS India expanding after OFS Singapore*³. While our two ongoing FPSO projects are coming to a close, we expect to win two new major projects in fiscal 2025 to stabilize our earnings base for the near future.

Among our overseas locations, India, Indonesia, and China are performing particularly well.

Our India location has many excellent engineers and is growing as a design base, winning the highest value-adding projects in the country while also providing designs for TOYO projects around the world. Our Indonesia location was awarded three geothermal projects in fiscal 2024 and signed a memorandum of understanding with the local Ministry of Energy and Mineral Resources to formulate a geothermal master plan and lay the groundwork for future growth. In China, the same customers continue to place orders, and high-quality practical capacities are taking root.

*¹ AWP: A method of dividing a project into manageable units (work packages), creating network schedules, setting and planning constraints (e.g., drawings, materials, resources) in advance, and executing and managing the project

*² EffiMate™: TOYO's proprietary schedule optimization system developed as the core system for AWP

*³ Offshore Frontier Solutions Pte. Ltd.: A joint venture established by TOYO and MODEC, Inc. in Singapore in August 2022 to carry out engineering, procurement, construction, and installation (EPCI) for FPSOs

P. 33 Advanced EPC Operation Initiatives

Information about DXoT strategies, initiatives, and the benefits it will create.



New revenue model to underpin stable management

Our new business initiatives include promoting projects through co-creation with customers. The four high-performance chemical plants in Japan ordered in fiscal 2024 were all projects developed through dialogue with customers from the conceptual stage, as opposed to the conventional all-in package order format. For customers developing new materials and advanced chemicals, consulting backed by TOYO's engineering expertise can be an effective way to make plans, designs, and processes more precise and reduce additional costs. Essentially, the projects are driven by co-creative relationships in which both sides share their opinions. In our view, this will become the mainstream approach in the future.

This year, we formulated a new management vision for 2040, titled "TOYO VISION 2040." At the core of the vision is the theme of achieving sustainable, stable management through a two-pronged revenue model comprising flow-type and stock-type models. The flow-type model is a short-cycle revenue model for further advancing EPC business by strengthening DXoT and global locations. The stock-type model is a long-cycle revenue model for ongoing billing, long-term contracts, and operational revenues through operation and maintenance businesses as well as licensing, energy management, data management, and investment income. Combining these two models will help us stabilize management and achieve sustainable growth over the medium and long term.

P. 14 Long-term Management Vision

An overview of the business model and information about steps toward transformation for 2040.

Creating sustainable corporate value through co-creation and dialogue

We relocated our Head Office to Makuhari Shintoshin in December 2024, following a decision amid sweeping change throughout the world, driven by the COVID-19 pandemic and work style reform. To find solutions to complex, diverse issues, everyone involved must commit themselves to engaging in dialogue. Our new office is a space where our diverse teams can empathize, resonate, and co-create with each other wherever and whenever they need to, depending on the nature and purpose of their work. With clever design features throughout, these creative spaces double as a message to our employees: Try new things! For much of our project work, human labor is being replaced by generative AI and other cutting-edge technologies. The conventional image of engineers is changing. Now, even engineers must be able to create new business and value through dialogue with customers.

However, no matter how much times change, electric power and materials will still play essential roles in people's lives, and the plants that produce them will not disappear. Our core business is plant construction, and we will continue to invest in new technologies for full automation, labor-saving, and more to build the plants that our customers need. By continually changing and evolving, we will continue to contribute to the development of the new products and energies people need in the future. That is our goal and mission. To make this possible, we aim to be a company that grows sustainably by developing a variety of businesses within a two-pronged (flow-type and stock-type) business model.

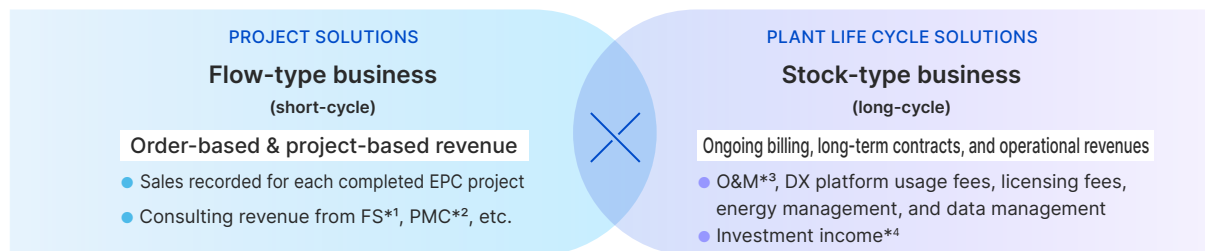
People feel optimistic and excited when they encounter new businesses, technologies, people, and spaces. Our engineers continue to explore and break new ground while engaging in active dialogue with our customers.

This consistent dialogue helps our company grow and continue to contribute to the future of society. Through this process, we will be able to achieve sustainable growth and become an indispensable company that is always there for its customers. As president, I intend to drive the growth of our businesses, the revitalization of our organizations, and the creation of better working environments and a solid corporate culture. I will fulfill my responsibilities in each and every growth process by staying abreast of changes in the times and engaging in dialogue with our stakeholders, whose continued support I sincerely appreciate.

P. 09 Our Value Creation Model

An overview of the management foundation, capital, intangible assets, and business models that enable TOYO to achieve sustainable growth.

Two-pronged (flow-type and stock-type) revenue model to underpin stable management



*1 FS: Feasibility study

*2 PMC: Project management consultant

*3 Operation & Maintenance

*4 Regular income from business investments



CFO MESSAGE

Enhancing earnings through rigorous risk management and the double spiral growth strategy



Yasuo Miyokawa

Director, Senior Executive Officer,
Chief Financial Officer (CFO)

Fiscal 2024 results and fiscal 2025 outlook

In fiscal 2024, we recorded 278.0 billion yen in net sales, 2.5 billion yen in operating income, 6.4 billion yen in ordinary income, and 2.0 billion yen in net income. Overall, sales increased while profits decreased compared to the previous fiscal year. Factors contributing to decreased income include construction delays for a gas-fired power plant in Brazil and a pharmaceutical plant in Japan, problems during the commissioning stage of biomass power plant projects in Japan, and an impairment loss on fixed assets of a consolidated subsidiary in Brazil.

Conversely, some factors contributed to increased income, including increased profits from several EPC projects in India, China, and other countries and improved profitability of the FPSO business by an equity-method affiliate. However, these positive factors could not completely offset the negative factors, resulting in net income falling 4.0 billion yen short of the target of 6.0 billion yen we announced at the beginning of the fiscal year. As a measure for the future, we have expanded our risk management system for major projects with high risk factors through the Project Management Division—which was reorganized in January 2025—to perform checks, provide recommendations, and take other actions during pre-order reviews and management processes during project execution.

In the current business environment, it is increasingly difficult to complete projects due to challenges such as rising material and equipment costs and global trade tensions, including tariffs. However, this situation has actually served as a tailwind for capable engineering companies, leading to orders for EPC projects steadily rolling in across the entire TOYO Group.

For fiscal 2025, we forecast 200.0 billion yen in net sales, 1.5 billion yen in operating income, 6.5 billion yen in ordinary income, and 5.0 billion yen in net income. We selectively pursued projects for their quality rather than their scale and increased the ratio of non-EPC projects. Consequently, net sales decreased, but our gross margin increased from 9.4% to 13.3%, and we are in the process of building a management foundation that will enable us to steadily post profits. In fiscal 2025, our FPSO business will make a larger contribution to profits and given our ongoing investment of many human resources into it, we believe profits from the FPSO

business (accounted for by the equity method) should be viewed as part of our core business. We will also receive orders for two new FPSO projects in fiscal 2025. We expect to continue receiving orders for FPSO projects next fiscal year and beyond, and anticipate that we will be able to continue to record stable profits.

Considering cost of capital

Under the Medium-term Management Plan that began in fiscal 2021, we invested in business development and rigorously implemented risk management and portfolio management, and our profits have steadily represented the fruits of these efforts since fiscal 2023. Unfortunately, profits declined in fiscal 2024, and we were unable to fully meet the expectations of our shareholders and the market. As the final year of the current Medium-term Management Plan, fiscal 2025 is a very important year. Again, we recognize that posting solid profits is our top priority and will strive not only to achieve our profit targets, but also to build a robust management foundation for further growth in the fiscal years ahead. Regarding return on equity (ROE), our actual figure for fiscal 2024 was 3.3%, far below the target of 10% or more, highlighting the urgent need to post stable profits and improve profitability. The following guidelines describe the specific measures we will take toward that end. First, to strengthen our existing EPC business, we will improve productivity and increase profits by expanding our application of DXoT to projects. In the FPSO business, we will continue to post stable earnings through four projects, two of which are ongoing and two of which are new.

To stabilize earnings and strengthen risk management, we will implement risk reduction through portfolio management diversified by region and product and promote stable management by minimizing the impact of market fluctuations and country risk around the world. We are also conducting business portfolio management with our DXoT-based system, Corporate Management Cockpit, operating at full capacity. Given the improved performance of our overseas locations and the increasing size and complexity of our projects in the growth process, we are strengthening the management of the entire Group (including overseas locations) through the Project Management Division. Concurrently, TOYO is promoting the development of non-EPC business to increase its percentage of the Group's overall business and thereby increase the Group's profit margin. We are ramping up strategic activities to win orders for high-margin, low-risk, high-quality projects, for example urea and methanol licensing projects. In projects for carbon neutrality and other new businesses, we are promoting expansion to new EPC orders by performing pre-project tasks, namely feasibility studies (FS) and front-end engineering design (FEED). By conducting technical studies and examining costs with high precision, we will help win projects through our clients' final investment decisions (FID), capturing projects that are less risky and more predictably profitable. Through these efforts, we expect our ROE to recover to 8.1% in fiscal 2025 and hope to consistently produce ROE in excess of 8% to 10% during the next Medium-term Management Plan period (fiscal 2026 and beyond).

Entering a new stage: Reaping the fruits of our investments

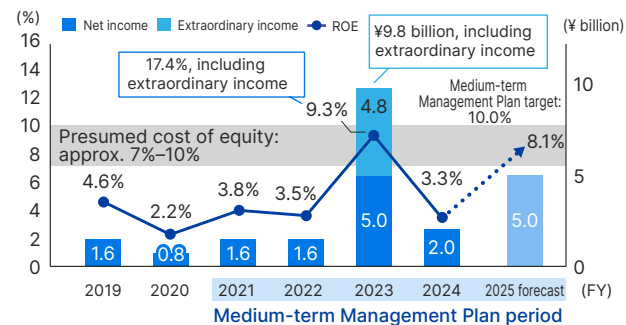
We have been expanding our investment in growth since 2021, when the current Medium-term Management Plan was launched. Specifically, we have aggressively invested in DXoT, completing the underlying system in fiscal 2024. By applying this technology to all EPC projects, we will reduce labor-hours by 50% and construction costs by 15% with the aim of increasing productivity sixfold. As of now, we are still applying DXoT to a limited number of projects. We are only about 45% of the way to our target, so the impact on profits is limited. However, we expect the cost-reducing benefits to emerge in and after fiscal 2025 as we expand our application of DX to more projects and progress toward the target. We expect to invest 8.3 billion yen in DXoT and ICT in fiscal 2025, a slight increase given that it includes operation and personnel expenses for transitioning from the development stage to reaping the rewards. Looking forward, we expect investments in DXoT to level off and decrease in the following years.

We are also planning to expand our business into Central Asia, Africa, and the rest of the Global South. We were already awarded a urea licensing project for a fertilizer plant in Angola in fiscal 2024, and we expect to receive the second and third orders in this promising market in the near future. That said, when venturing into new territory with EPC projects, we consider expanding business in stages and investing in pioneering development, emphasizing risk management through teaming and collaborating with local partners rather than on our own.

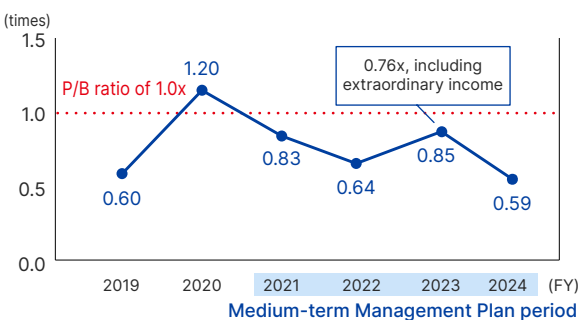
We will also invest in projects for carbon neutrality and other technology and business development while closely monitoring industry trends and economic rationality. By clearly reflecting these growth investments in our business performance in the form of profits, we will sustainably enhance our corporate value.

Regarding shareholder returns, our basic policy is to maintain a dividend payout ratio of at least 25% for the time being. Despite the downward revision for fiscal 2024, we intend to pay the originally planned dividend of 25 yen, and plan to keep the dividend for fiscal 2025 at 25 yen (dividend payout ratio of 29.3%). In fiscal 2025, we aim to increase net income to more than 5.0 billion yen and continue to meet the market's growth expectations by consistently posting profits next fiscal year (the first year of our new Medium-term Management Plan) and beyond, thereby improving our P/E ratio and P/B ratio to 1.0x or more.

ROE

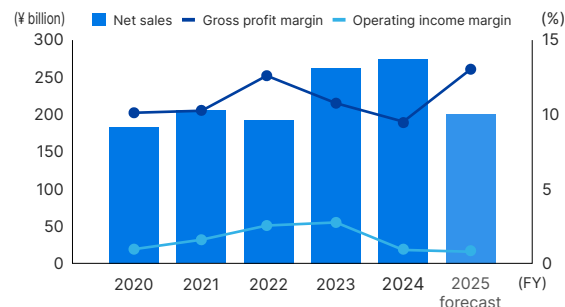


P/B Ratio

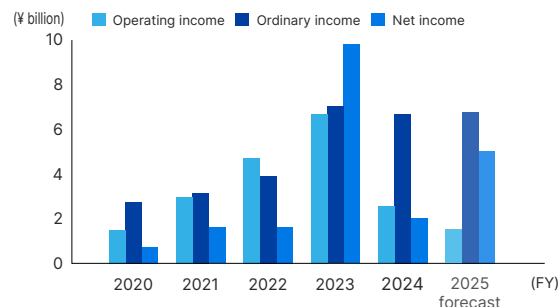


Financial

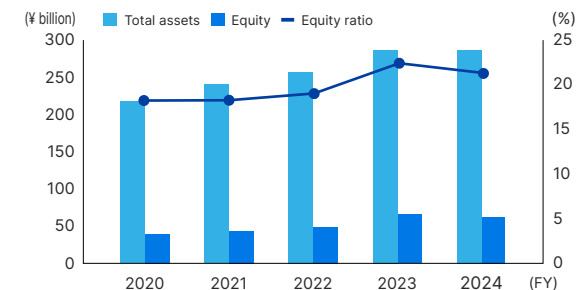
Net sales, gross profit margin, operating income margin



Operating income, ordinary income, net income



Total assets, equity, equity ratio



Sales remained low in and after fiscal 2020 as a result of the slowdown in orders in fiscal 2019 and 2020 due to deteriorating market conditions caused by COVID-19 and other factors. However, net sales began increasing in fiscal 2023 thanks to the increase in new orders that began in fiscal 2021. Although income and equity ratio steadily trended upward in the wake of the Medium-term Management Plan that started in fiscal 2021, operating income deteriorated to 2.5 billion yen in fiscal 2024 due to the appearance of projects with worsening losses in Japan and overseas and the impact of additional negotiations with customers that were not finalized. Despite strong FPSO business contributing to equity method investment income, net income fell to 2.0 billion yen, due in part to impairment losses on fixed assets in Brazil. With the elimination of these negative factors in fiscal 2025, we expect net income to recover to 5.0 billion yen.

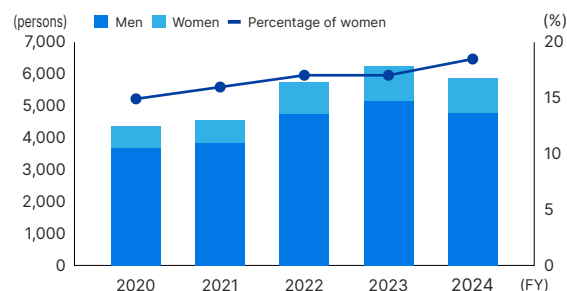
Financial
Highlights

[Click here!](#)

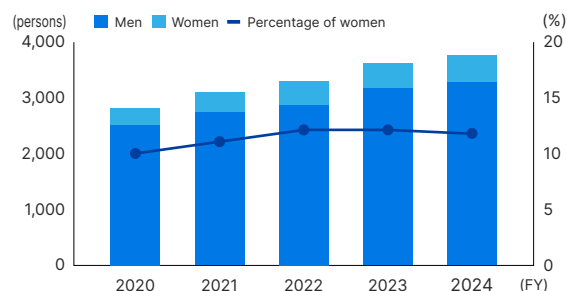


Non-Financial

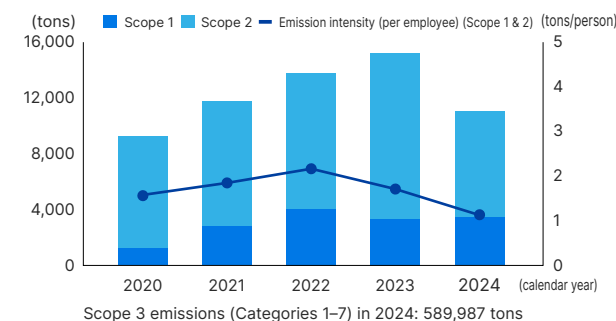
Number of employees (consolidated)



Number of engineers (consolidated)



GHG emissions for TOYO Group overall (Scope 1 & 2)



Although the number of employees has been increasing alongside business expansion and the percentage of female employees is also on the rise, we had fewer employees in fiscal 2024, in part because of the impending completion of several projects handled by our Brazilian subsidiary, which had become consolidated. We have been promoting various initiatives with the goals of achieving net zero GHG emissions by 2050 and reducing emissions by 30% in 2030 compared to 2021 (based on emissions intensity per employee); we achieved the latter goal with a 37.4% reduction in 2024. We also began disclosing Scope 3 emissions for Categories 1 through 7 in 2024.

TOYO's Value Creation Model

MISSION

Engineering for Sustainable Growth of the Global Community

Practicing sustainability management

Based on our intangible assets—our human resources, technologies, and group companies—we will continue to create corporate value by supporting the sustainable development of society and the environment through the function of engineering.



We identified materialities by using our distinct areas of contribution and core competencies to conduct assessments in terms of importance, priority, and time.

P. 46



Aim to realize an environmentally friendly society

P. 48

Cumulative number of orders and business investment cases, FY2021–FY2024

- Pursuit of low-environmental-impact plants
- Contribution to achieving a circular economy
- Pursuit of next-generation energy

42



Enrich people's lives

P. 52

Cumulative number of orders and business investment cases, FY2021–FY2024

Food supply	Energy supply	Foundation for daily living
18	49	98



People of diverse backgrounds engage in active, meaningful work

P. 57

- Training and developing human resources
- Promoting health and productivity management
- Promoting inclusion
- Enhancing work-life balance
- Human rights initiatives



Establish an organization with integrity and discipline

P. 64

- Corporate governance
- Compliance

Enhancing our corporate value

Increased ROE through transformation of business structure

FY2025 forecast

ROE 8.1%

Stabilization of management and sustainable growth

FY2025 net income forecast

¥5.0 billion

Sound financial foundation

¥75.0 billion

Near-term target:
Equity ratio of 25% or more

Advanced EPC Operation Strategy

Combining the strengths of our domestic and overseas locations with DX-based business reform, we will realize next-generation EPC that achieves both profitability and quality on a global scale through a distributed, autonomous structure. P. 33



Value Creation Strategy
for the Next Generation

P. 14

Sustainable Technology and Business Development Strategy P. 30

In our priority areas—circular/low environmental impact, CO₂ utilization/energy saving, next-generation energy, resource and energy security, and quality of life improvement—we draw on our stockpile of knowledge, technologies, and experience in the EPC business to engage in Sustainable Technology and Business Development for the future.



Business Model

EPC

Business P. 21

Environmentally friendly industrial plants/infrastructure facilities
High-efficiency plants that concentrate our technologies and expertise

We engage in engineering (E), procurement (P), and construction (C) for plants with proper management of safety, quality, delivery time, and cost.

Design companies



Materials and equipment manufacturers



Transport companies



Supply chain

Construction companies



Customers



Alliance partners



Process licensors



Non-EPC

Business P. 22

Solutions services for customers and society based on our knowledge of EPC business

We engage in licensing and in technical and business consulting, grounded in our knowledge of the EPC business.

Value-creating human resources

P. 38

A group of professionals who constantly learn and stay up to date to serve customers and resolve social issues.



Unique technology

P. 39

With TOYO's proprietary technology, we can bring into existence plants that contribute to a decarbonized society through optimal design of heat, materials, and energy.



Locations for global operations

P. 41

EPC locations in the Global South and other countries work in unison to meet local needs and execute projects around the world.



Achieving sustainable growth by effectively utilizing our five forms of capital to increase value

P. 37

Human capital

Natural capital

Intellectual capital

Social and relationship capital

Financial capital

Social Contribution Activities

P. 56

Initiatives to Strengthen Governance

P. 66

Compliance

P. 70

Management Foundation

Risk Management

P. 71

Quality, and Health and Safety Initiatives

P. 72

Relationship with Stakeholders

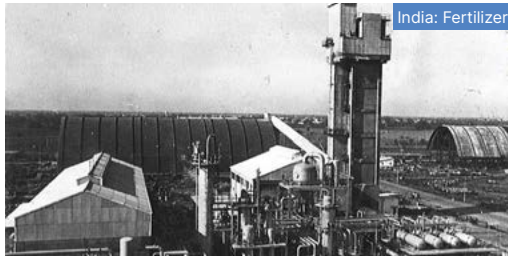
P. 73

TOYO's Value Creation History

Drawing on our technical capabilities and global structure that we have enhanced to accommodate the ever-changing business environment, we will continue evolving to resolve social issues and achieve sustainable growth.

Pioneering of overseas markets and establishment of our technological foundation

Received an order for our first overseas project, a fertilizer plant in India.
Began partnership with major licensors (KBR (ammonia) and Lummus (ethylene) in the USA)



India: Fertilizer

📍 Head Office established 1961 Toyo-Japan

1960

Period of rapid economic growth

1970

Oil crises

1980

Diversification of services and lifestyles

1990

Bursting of Japan's economic bubble, proliferation of the Internet and personal computers

Diversification of our portfolio

- Diversification of our portfolio into the pharmaceutical and power generation fields, drawing on the technical capabilities and knowledge of our existing businesses
- Deployment of information technologies in the plant enhancement business and industrial systems field



Japan: Active ingredients



Turkey: Enhanced oil recovery

Expansion of business through the honing of our technical capabilities

- Successive studies of advanced technologies, and honing of our technical capabilities
- Increase in overseas global networks and construction of global structure



Japan: Ethylene



Brunei: Gas-fired power plant

📍 Establishment of global networks

- 1972 Toyo-Europe
- 1976 Toyo-India
- 1986 Toyo-Malaysia, Toyo-USA
- 1987 Toyo-Korea, TEC Project Services Corporation (Japan)

Toward the Global TOYO structure

- Toward making all global networks autonomous profit centers
- Setting of Mission, Vision, and Values for the Group overall, unification of logos, and strengthening of competitiveness as a group

Global TOYO campaign logo (used until 2012)

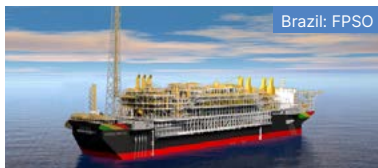


Establishment of global networks

2004 Toyo-China

Tackling the challenge to achieve a carbon-neutral world

- Promotion of our Medium-term Management Plan (2021 to 2025)
- Sustainable growth through our Sustainable Technology and Business Development strategy and Advanced EPC Operation strategy



Establishment of global networks

2022 OFS (Singapore)

2000

IT revolution,
bursting of tech
bubble, global
financial crisis

2010

Advancement of
digitalization,
adoption of the
SDGs at the UN
Summit

2020

Generative AI/data
center boom,
COVID-19 pandemic

Shift from expansion course

Thorough review and strengthening of risk management, promotion of management reform and corporate culture transformation



Establishment of global networks

2012 IKPT (Indonesia), TSPI (Brazil)

TOYO's stockpile of value will lead to the realization of a sustainable society

By tackling challenges together with customers, we will continue to contribute to the development of the new products and energies people need in the future.

TOYO's solutions cultivated over the years

- | | |
|--|-----------------------------|
| • Fuel ammonia | • Thermal power generation |
| • Synthetic fuels (e-fuel/SAF) | • CCS, CO ₂ -EOR |
| • Waste plastic recycling | • Methane hydrate |
| • Energy saving and GHG reduction consulting | • Rare earths |
| • Middle molecule pharmaceuticals | • Methanol |
| • Biopharmaceuticals | • Ethylene |
| • Renewable electricity generation (geothermal, biomass, mega-solar) | • Ammonia |
| | • Urea |

TOYO VISION 2040

Under the mission of “engineering for sustainable growth of the global community,”
we aim to transform into an engineering partner that co-creates and implements social value.

Beyond EPC to become an engineering partner that co-creates and implements social value

Designing plant life cycles and maximizing value to business

Engaging in business that accommodates the entire plant life cycle (PLC) to contribute to enhancing our customers' business value.

From contracting to co-creation

Designing value together with customers and society from the business conception stage to establish participatory partnerships.

Creating new markets through ecosystems

Combining technology, digital, and practical capabilities to become a leader in differentiated areas and achieve a multi-layered profit structure.

Two-pronged (flow-type and stock-type) revenue model to underpin stable management



Concentrating on EPC projects in pursuit of higher added value and scalability to a stock-type business model.
Promoting the use of AI technology and DX to achieve low risk, high returns, and stable profitability in the EPC business.

PROJECT SOLUTIONS

Flow-type business (short-cycle)

Order-based & project-based revenue

- Sales recorded for each completed EPC project
- Consulting revenue from FS*1, PMC*2, etc.



PLANT LIFE CYCLE SOLUTIONS

Stock-type business (long-cycle)

Ongoing billing, long-term contracts, and operational revenues

- O&M*3, DX platform usage fees, licensing fees, energy management, and data management
- Investment income*4

Expanding knowledge of differentiated technologies and increasing partnering to create value from combining business investment with performance-based compensation in small, specific areas where segment leadership is in reach. Achieving stability and growth with recurring revenue*5.





Click the facilities and services!

Click on a facility or service to learn more about TOYO's efforts in that area!

TOYO's Connection to Society

TOYO designs and builds plants (factories) that produce fuels, electrical power, raw materials for products, pharmaceuticals, and other products indispensable to everyday living.

We cooperate with various companies and countries to incorporate carbon-neutral perspectives into all forms of manufacturing, thereby promoting technological development and value creation for a sustainable future.



- *1 Floating Production Storage and Offloading System
- *2 Carbon dioxide Capture and Storage
- *3 Sustainable Aviation Fuel
- *4 Greenhouse Gas



Petroleum refining plants CCS*² facilities

Waste plastic recycling plants

Biomass-derived chemical plants

Fertilizer (ammonia, urea) plants

Hydrogen/fuel ammonia plants

Hydrogen/fuel ammonia receiving terminal

Petrochemical plants

Gas processing plants

Gas-fired power plants

Biomass power plants

Geothermal power plants

Renewable methanol plants

Pharmaceutical plants

SAF*³ plants

Synthetic fuel (e-fuel) plants

Solar carport

Hydrogen station

Solar power generation

Energy saving/GHG*⁴ reduction consulting

Co-creation engineering

Building a sustainable society through engineering

We will continue to respond to the ever-changing needs of society through ongoing dialogue with our customers and contribute to realizing a sustainable society by constructing plants and developing energy with low environmental impact.

A block x time-lapse look at TOYO's world

Watch a video introducing the Company

[Click here!](#)



Food and agriculture

Urea fertilizer is vital to increasing the production of food for a growing global population. TOYO holds patents necessary for urea production. As a world leader in urea technology, we have designed and built more than 100 urea plants since our founding in 1961.

Related businesses and technologies

- Fertilizer (urea, ammonia) plants
- ACES21™ energy-saving urea synthesis technology



Pharmaceuticals

TOYO has been involved in the construction of pharmaceutical manufacturing plants for over 30 years, leveraging over 60 years of experience in plant construction. Through technology development, we will support the increasingly advanced pharmaceutical manufacturing demanded by customers and society.

Related businesses and technologies

- Pharmaceutical manufacturing plants



Energy and electricity

Since the 1980s, we have helped develop public infrastructure with expertise and technical capabilities gained from constructing many power plants. More recently, we have leveraged our experience in geothermal power plant construction in Indonesia and our knowledge of drilling to consider how to effectively use geothermal resources beyond power generation and develop geothermal power plants to meet needs in Japan.

Related businesses and technologies

- Renewable energy power plants
- Geothermal power plants
- Gas-fired power plants



Household goods (plastic)

We are collaborating with other companies on the development of technologies to efficiently recycle numerous types of discarded plastic. Our aim is to solve the problem of plastic waste worldwide and realize a circular society.

Related businesses and technologies

- Waste plastic-to-oil plants
- Waste plastic recycling plants
- Petrochemical plants (ethylene, polyethylene, etc.)

Defining the value created by geothermal development and TOYO's mission for the future of society



Next-generation geothermal field development: one of the key initiatives under the Sustainable Technology and Business Development strategy. President Hosoi discusses the development of this technology and the future of geothermal development as envisioned by TOYO with Akita University Professor Shigemitsu Naganawa, an expert in the field.

Shigemitsu Naganawa

Professor, Department of Earth Resource Engineering and Environmental Science, Graduate School of International Resource Sciences, Akita University

Eiji Hosoi

Representative Director, President & CEO, Toyo Engineering Corporation

Constructing geothermal power plants in Indonesia

Hosoi: Geothermal energy is attracting attention as a next-generation energy source in Japan and other countries. TOYO is steadily building a track record in the space, having already worked on geothermal power plant construction projects in Indonesia for more than a decade. Geothermal energy is suitable for baseload power—providing a reliable supply of electricity—and thus is a crucial form of renewable energy. We need geothermal energy for the decarbonized society of the future, and I see immense potential for expanding our geothermal-related business.

Naganawa: Indonesia has the second-largest geothermal reserves in the world. TOYO has proven itself in a very promising location.

Hosoi: Our ongoing relationship with Indonesia dates back more than 50 years. In the beginning, we constructed petrochemical and fertilizer plants there. We then expanded to gas processing plants, petroleum refining plants, geothermal power plants, and more, and became involved in many EPC projects. We have established solid trust-based relationships with many companies as well as state-owned enterprises and other government agencies.

Naganawa: I initially majored in petroleum—not geothermal—engineering and learned about drilling technology in depth as a part of that.

Hosoi: Petroleum engineering and geothermal development share a lot of core technologies, including drilling and completion. Our geothermal projects are led by a specialist unit that has been involved in petroleum development. In 2012, TOYO brought IKPT, an Indonesian engineering company, into the Group as a subsidiary. That same year, a major Japanese company asked for our cooperation in a geothermal power plant project in southern Sumatra, marking the start of TOYO's geothermal power plant construction. I was also involved in business promotion and management in Indonesia for seven years starting in 2012, first as a director of IKPT, and then as its president for the second half of that period.

Naganawa: Your extensive experience and trust-based relationships in petrochemicals and other fields must have made it easy for you to get into geothermal power generation in Indonesia.

Hosoi: It definitely helped. However, constructing geothermal power plants is different from building other kinds of plants in that most geothermal plants are located on steep slopes in volcanic regions and built on soft ground. Building on technology developed for petrochemical plants, we were able to construct that first geothermal power plant through a blend of creative thinking and research. Since then, IKPT has continued to build geothermal power plants throughout Indonesia, and geothermal power generation is now IKPT's core business.

Japan: One of the world's most geothermal-rich countries

Naganawa: Although Japan has little oil, it has countless volcanoes, giving it the third-largest geothermal reserves in the world behind Indonesia. Although people are paying attention to geothermal development now, not long ago, around the year 2000, the government's geothermal-related budget was drastically reduced for more than 10 years, and research and development stagnated.

Hosoi: Geothermal development relies heavily on government support. In fact, government backing is the reason that geothermal power generation is a rapidly growing field in Indonesia, Türkiye, and Kenya.

Naganawa: Exactly. The Great East Japan Earthquake reminded people in Japan that geothermal resources are a renewable energy alternative to nuclear power, and revived government support for geothermal development. At the

time, I was teaching petroleum engineering at a university. Given the importance of oil drilling technology for geothermal development, I was asked to cooperate in the geothermal field. That was when I decided to specialize in geothermal development.

Hosoi: Like TOYO's geothermal business in Indonesia, your connection to geothermal development was rooted in drilling technology, a common component of both petroleum and geothermal development.

Naganawa: Drilling technology is a huge factor in effectively capturing heat energy in geothermal development. After the earthquake in 2011, researchers from the Geological Survey of Japan and a research group from Tohoku University launched an effort toward the development of supercritical geothermal resources. The main goal was to develop advanced, next-generation geothermal technology that can utilize high-temperature heat from deep underground. Iceland is leading research and development of this technology, which captures geothermal energy so efficiently that hydroelectric power and geothermal heat alone are enough to satisfy the country's electricity needs. When I learned about this, I realized that geothermal heat is a promising next-generation energy source in Japan, too.

Explaining the Geothermal Carbon Neutral Park Concept

Hosoi: Geothermal development requires a complex, optimized combination of various technologies, including those that capture heat from deep underground and those that utilize

relatively low-temperature hot water. TOYO has honed these technologies and produced results in the context of assisting customers in petroleum development projects and constructing geothermal power plants in Indonesia. Most recently, we have launched the Geothermal Carbon Neutral Park Concept for next-generation geothermal field development that integrates these technologies. Under this concept, geothermal power can be supplied to wider areas than before by using geothermal energy not only to generate power, but also to create hydrogen, ammonia, and other clean fuels, by incorporating closed-loop*1 and binary cycle power generation*2 technologies. We are also working to enhance the added value of geothermal development by making the most effective use of geothermal resources, including capturing mineral resources contained in thermal water extracted from underground and directly using geothermal energy.

Naganawa: This is actually an ideal model for geothermal development. For primary energy sources such as geothermal heat, it is critical to figure out how to capture and use the energy most efficiently, without waste. In the case of the Geothermal Carbon Neutral Park Concept, the value lies not only in the electricity generated, but also in the direct use of residual heat and the production of hydrogen, ammonia, and other secondary fuels. I think ideas like these are wonderful because they will create diverse value.

Hosoi: We can create even more value under the Geothermal Carbon Neutral Park Concept by utilizing Japan's leading industrial technology and advanced facilities, which will invigorate industry in Japan.

Naganawa: This stage doubles as an opportunity for Japanese engineers and industry to flourish. I am very interested in seeing how the project in Indonesia progresses.

Hosoi: Right now, we are working on a memorandum of understanding with the Indonesian Ministry of Energy and Mineral Resources to formulate a geothermal master plan. We are also in the process of building a development roadmap to scale up from pilot testing to commercialization. Indonesia is a promising market with high growth potential—the country plans to increase its installed capacity by 150% (to 5.7 GW) by 2030. TOYO plans to work with the Indonesian government to optimize the structure of Geothermal Carbon Neutral Parks to match local characteristics and satisfy needs in each region, and to provide customers with development plans that can be adapted to any region. Beyond that is Japan. The Japanese government target is to increase the installed capacity by 130% to 160% by 2030,



and we will apply the technology and knowledge we gain in Indonesia in the Japanese market.

*1 A method of generating power by circulating liquid through loops between the ground surface and the underground to tap into existing underground heat sources

*2 When the geothermal fluid is low-temperature, electricity is generated by using a working fluid with a lower boiling point than water

P. 30 Geothermal Carbon Neutral Park Concept

Co-creation efforts: The key to geothermal development

Naganawa: When I heard about the complex Geothermal Carbon Neutral Park Concept, it reminded me of the Carbon Neutral Campus concept I developed previously. The idea was to dig wells on the Akita University campus for binary cycle power generation, install wind turbines, and utilize heat, in order to power the entire campus with renewable energy.

Hosoi: What an innovative idea! You could go beyond the university to involve the government and private companies like TOYO to study and manufacture the facilities and equipment. In the future, the world will need more electricity than ever before. In my view, data centers should be an integral component of the Geothermal Carbon Neutral Park Concept. They would be like complex industrial parks. So, your Carbon Neutral Campus should have a data center, don't you agree?

Naganawa: Interestingly, regions in Japan where the underground is hot tend to be cold above ground, so it would be very efficient to power data centers in places like Tohoku and Hokkaido with geothermal electricity. That's a great idea for Akita University!

Hosoi: Geothermal development is conducive to close relations with local communities and the natural environment. Cities and schools working toward a decarbonized society would find it highly appealing. To bring ideas like these to fruition, we need industry, academia, the government, and the private sector to co-create and build together.

Naganawa: In Japan, we have established a public-private council of which I am a member and TOYO is a working-level member, and the council has begun efforts to expand geothermal power generation and develop technologies as medium- to long-term goals. Regulations and infrastructure development in areas such as mountains and national parks are a challenge, but these barriers can be overcome as deregulation, research, and development progress and as heat use diversifies. Development costs are also an issue. Leading countries in geothermal development like Iceland and the US are making efforts in research and development and pilot testing to reduce drilling costs and maximize the cost-effectiveness of geothermal power generation. At the same time, we must also figure out how to best utilize resources without waste. In my view, the key will be to figure out how to increase the value of thermal water and steam through reuse, utilizing low-temperature water, and otherwise using our valuable resources most effectively.

Making Japan synonymous with geothermal energy around the world

Hosoi: Maximizing the value of geothermal resources is the core mission of the Geothermal Carbon Neutral Park Concept. Geothermal development—the heart of the Geothermal Carbon Neutral Park Concept—combines steam turbines, technology for making steel capable of withstanding high heat, and a wide range of other advanced technologies. Japan should promote its technological strength in these areas to the rest of the world. By deploying geothermal development around the world, we will demonstrate that Japan is synonymous with geothermal energy and contribute to the world. This is TOYO's mission and major responsibility as an engineering company. We should also build our brand so that TOYO is the name that comes to mind for geothermal energy and promote ourselves to the global market with our ability to offer comprehensive solutions that combine EPC and other businesses centered on geothermal energy. I believe this will boost our global recognition and reputation and help us sustainably enhance our corporate value.

Naganawa: Geothermal development is a valuable field in which Japan can fully demonstrate its technological strength. That said, R&D engineers who came into the field in the 1990s are now approaching retirement age. Passing on the technology to the next generation is an urgent task. After all, it's people that drive technology. Underground resources are as appealing as space exploration and are crucial for enhancing the future value of Japan. I intend to involve myself in further research and development in geothermal energy, and to nurture as many young people—future leaders—as I can.

Hosoi: I hope that you and your students will visit our development sites in Indonesia. Thank you very much for sharing your Carbon Neutral Campus concept and other valuable insights on geothermal development today. This talk has furthered my hope and confidence in geothermal development. I look forward to the day when we can work together on our Geothermal Carbon Neutral Park Concept and other efforts to develop new next-generation energy sources.



TOYO BUSINESS MODEL

Overview of TOYO's Business

We will achieve sustainable growth by deploying a double-helix strategy of expanding our business by applying and investing the knowledge, experience, and profits gained in the EPC business in new business areas and non-EPC businesses, while also returning the newly gained knowledge and business opportunities to the EPC business.

What is EPC?

EPC involves all-in contracts for the engineering, procurement, and construction of a wide variety of plants. The keys to success with EPC projects are our engineering technical capabilities that integrate component technologies into design, project management capabilities that preserve safety, quality, delivery time, and cost to bring plants to completion, and global support capabilities for implementing projects around the world.

Engineering

P. 21



Procurement

P. 21



Construction

P. 21



EPC Business

Environmentally friendly industrial plants/infrastructure facilities
High-efficiency plants that concentrate our technologies and expertise

We engage in engineering (E), procurement (P), and construction (C) for plants with proper management of safety, quality, delivery time, and cost.

All-in contracts for EPC and EP powered by advanced project management

Non-EPC Business

Solutions services for customers and society based on our knowledge of EPC business

We engage in licensing and in technical and business consulting, grounded in our knowledge of the EPC business.

Wide variety of business models with low volatility and high profit margins

1 Intellectual property/licensing business
P. 22



2 Project planning and feasibility studies
P. 23



3 Project investment and operations
P. 24



4 PMC and owner's engineering
P. 25



5 Engineering, procurement support, and construction management
P. 26



6 Performance fee-based and subscription-type business
P. 27



7 Co-creation engineering
P. 28



Engineering



Strengths in proprietary technologies and collaboration with licensors worldwide

We engage in design through the integration of chemical, material, machine, electrical, control, architectural, civil engineering, and other component technologies. Our patents related to the production technologies are process licenses. We supplement our proprietary technologies through long-running collaborations with the world's leading process licensors.

Procurement



Enhancement of quality and cost competitiveness through our global procurement network

We order equipment from manufacturers based on drawings. We manage equipment delivery and quality, arrange means of transportation, and transport equipment to construction sites. Leveraging our extensive global network and drawing on the best manufacturers, we achieve procurement that is competitive in terms of quality and cost.

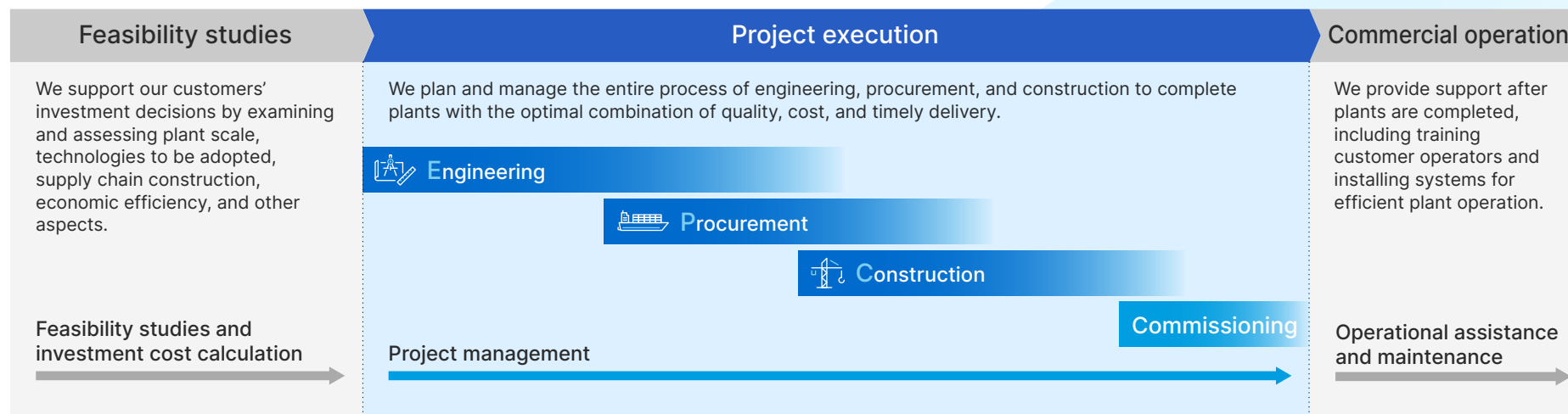
Construction



DX-driven efficient management that spans design to construction

We install and assemble equipment brought in from around the world. We manage large amounts of equipment, leveraging digital transformations (DX) to carry out construction smoothly. We carry out planning and construction work integrating all stages from design onward, along with real-time progress management and advanced risk management.

Project execution flow





1 Intellectual property/licensing business

TOYO was originally spun off from a chemical company, and holds proprietary technology licenses for production processes for urea, methanol, and other chemicals. In addition to licensing these technologies, we help our customers' businesses succeed by providing comprehensive technical services based on our knowledge of engineering, procurement, construction, and operational support from EPC operations. Our Intellectual Property Management Department works closely with our engineering departments on the front lines of our EPC business to drive our creation and protection of intellectual property and development of new business models.

Case study Methanol production technology licensing

Strengths: Uniqueness and competitive advantage

- Ownership of technology for producing methanol (g-Methanol™) using CO₂ and green hydrogen
- Ownership of a highly efficient methanol synthesis reactor (MRF-Z™)
- Ownership of plant design technology (MethaMaster™) and operation planning technology (MethaDynamics™) for dealing with fluctuations in renewable energy beyond the limits of competitors' technologies
- Ongoing research toward establishing a value chain for e-methanol as a marine fuel

Revenue and business models

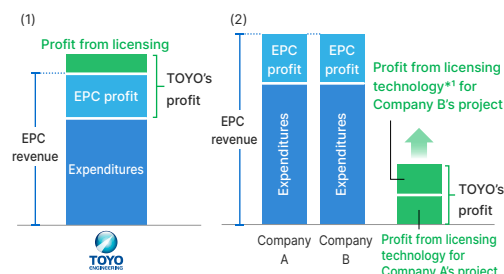
We deploy a revenue model that combines conventional engineering, procurement, and construction (EPC) order-based business with technology licensing business in which we license our proprietary technologies and receive compensation. In our licensing business, we provide process technologies and operational expertise for producing methanol, urea, and other chemicals as packages and earn revenue through design, engineering, and other technical support in addition to granting usage rights. We deploy these two business models flexibly to match local and project characteristics, diversifying and stabilizing our earnings base.

- EPC and licensing: In India, Southeast Asia, and other regions where we have locations and can demonstrate our competitiveness in EPC, we engage in EPC and technology licensing business in an integrated manner to provide comprehensive support to our customers, from upstream to downstream.
- Licensing only: In North America, the Middle East, and other regions where demand for clean methanol is on the rise but package EPC contracting is high-risk, we specialize in technology licensing and related services, and leave plant construction out of the scope of our business.

1 Securing stable earnings with recurring (stock-type) revenue

Traditionally, licensing revenues in the plant industry are received in lump sums (i.e., a flow-type business model). For e-methanol and other fields with newly emerging markets, we aim to secure stable earnings by establishing a stock-type business model with constant licensing revenues based on production volumes of products.

- India, Southeast Asia, and other regions where we have locations and can demonstrate our strengths in EPC
 - Both EPC and licensing
- North America, the Middle East, and other regions where demand for clean methanol is on the rise
 - Focus on licensing only (exclude high-risk construction)



2 Synergy with EPC

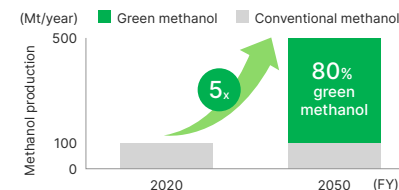
- We use process design and operational expertise gained from EPC projects to develop and provide proprietary technologies licensed to our customers, for example, technologies for dealing with fluctuations in renewable energy and high-efficiency synthesis reactors.
- We use operational data and technical feedback from customers thereafter to continuously improve and upgrade the technologies.

Technologies advanced in this manner are differentiators that will help us win more EPC orders in the future. We will leverage this virtuous cycle—in which the knowledge we gain from EPC promotes our development of technologies for licensing and leads to further EPC orders—to maximize synergy between the two businesses.

3 Translate growth in the market for decarbonization into revenue

By 2050, the global EPC market for green methanol is expected to reach roughly 16 trillion yen. We will leverage our technological advantages with the aim of winning projects totaling roughly 2 trillion yen of that amount.

Projected methanol production in 2050*2



*1 Licensing refers to licensing patent rights and providing expertise on methanol production

*2 Source: Innovation Outlook: Renewable Methanol, IRENA & Methanol Institute, 2021



2 Project planning and feasibility studies

In the early stages of new business development, we conduct feasibility studies (FS) to evaluate the plant scale and technologies, establishment of supply chains from raw material procurement to final product manufacturing, and economic efficiency from multiple perspectives. In the subsequent front-end engineering design (FEED) phase, we estimate construction costs, identify technical issues, and provide customers with information for making decisions on and executing plant construction.

Case study FEED for a bioethylene production facility in Thailand

We are performing FEED for a bioethylene production facility with an annual capacity of roughly 200,000 tons for Braskem Siam Company Limited, a joint venture between Braskem S.A. (Brazil) and SCG Chemicals (Thailand).

This facility is the customer's core location for accelerating the development of renewable ethanol-based sustainable plastic in Asia to contribute to the realization of a decarbonized society.

We plan to complete FEED in 2025, and will then help the customer establish an international model case that contributes to a circular economy.

Strengths: Uniqueness and competitive advantage

- Bioethylene production capacity of roughly 200,000 tons/year, among the highest in the world
- Highly efficient, reliable process based on EtE EverGreen™ technology* from Braskem and Lummus
- Substantial reduction of CO₂ emissions through use of renewable sugarcane-derived ethanol
- TOYO's extensive experience and quality assurance capabilities from constructing numerous ethylene plants in Thailand

* A method of bioethylene production

Project structure

Braskem Siam Company Limited is the project manager, with TOYO in charge of FEED. In connection with advanced technology from Lummus, we aim to realize production of circular chemicals made from renewable resources under an international cooperative framework. By establishing a core location for supplying decarbonized ethylene to Asia, this project is an important step in supporting the transition to a sustainable society.



The signing ceremony

Other examples of project planning and feasibility studies

- Ammonia cracking-based hydrogen production system
- Fuel ammonia
- Green methanol
- Domestic SAF production plant
- Established liquefied hydrogen supply chain



3 Project investment and operations

TOYO goes beyond conventional EPC, devoting energy to project investment and operations centered on renewable energy and recycling to diversify earnings and create long-term value.

Case study GAIA*¹ green ammonia project in Indonesia

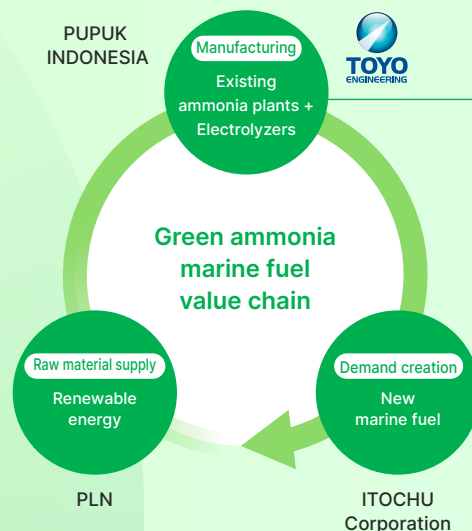
Strengths: Uniqueness and competitive advantage

- More than 50 years of experience in ammonia plant construction and expertise in utilizing existing plants
- Planning and implementing cost reduction measures based on our extensive experience
- Cost reductions and expedited project start-up by utilizing idle capacity of existing facilities
- Strong partnership with Indonesia-based fertilizer company PT Pupuk Indonesia (Persero), with support from the Japanese and Indonesian governments

Project structure

Under the GAIA project, TOYO, ITOCHU Corporation, and Pupuk Indonesia established a joint venture to utilize existing ammonia plants to produce green ammonia derived from renewable energy. TOYO will perform conventional FEED (basic design) and EPC in addition to investing in and participating in the operation of the joint venture, forming a business model that ensures long-term earnings. Looking ahead, we are considering expanding the project to other Pupuk Indonesia plants with the dual aims of sustainable growth for us and regional economic development and a decarbonized society for Indonesia.

Project development underway with support from the Japanese and Indonesian governments



Leveraging the experience, expertise, and track records of Pupuk Indonesia and TOYO to raise the value of existing assets

PUPUK INDONESIA

More than 50 years of experience and expertise in ammonia production

Experience designing and constructing more than 60% of existing plants owned by Pupuk Indonesia



Utilizing existing Pupuk Indonesia plants

- ▶ Add water electrolyzers to ammonia plants
- ▶ Necessary renewable energy procured from the existing electricity network



Optimizing capital investment and operating costs

- ▶ Utilize idle capacity of ammonia plants
- ▶ Improve operating efficiency by leveling production volume



*1 Green Ammonia Initiative from Aceh



4 PMC and owner's engineering

We leverage our extensive experience in EPC and the project execution capacity of our global locations to provide project management consulting (PMC) and owner's engineering services that support plant feasibility studies, business planning, and project planning, execution, and management. As a member of the customer team, we contribute to optimal investment decisions and project success.

Case study Optimizing cost, quality, and delivery time in a polyolefin production plant construction project in India

BPCL, an Indian petroleum company, constructed polyolefin (linear low-density polyethylene (LLDPE) and high-density polyethylene (HDPE)) production plants at the Bina Refinery. We provided comprehensive support for planning, execution, project management, and more from the early stages of the project, helping BPCL optimize cost, quality, and delivery.

Strengths: Uniqueness and competitive advantage

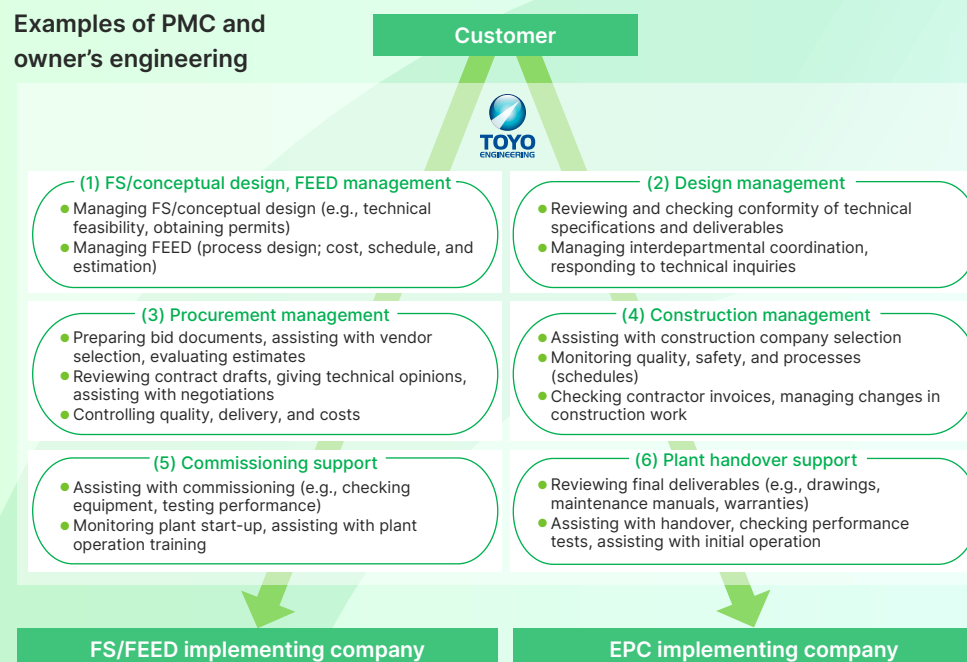
- Providing PMC services to customers based on our global experience, technical expertise, and project management capabilities in oil and gas, petrochemicals, fertilizers, FPSOs, and a broad range of other fields
- Providing comprehensive support from project feasibility assessment to planning, implementation, and management as a partner with our customers, providing practical advice based on our extensive experience and local knowledge to support better decisions
- Helping projects succeed and maximizing value through outstanding management skills that underpin both cost optimization and timely deliveries

Project structure

TOYO provided PMC services in all phases from initial planning to plant completion, supporting project execution as a member of the customer team. Specifically, Toyo-India leveraged its many highly experienced engineers and global design and procurement network. We established a high-quality, flexible support system for BPCL and other major Indian companies. Looking ahead, we aim to further expand our business in the Indian market, a setting with active private investment.

P. 42 India

Examples of PMC and owner's engineering





5 Engineering, procurement support, and construction management

We provide engineering, procurement support, and construction management (EPsCm) services for customer-driven projects. Our EPsCm services include design implementation as well as practical support in the procurement and construction phases, for example assisting with selecting equipment manufacturers and construction companies, controlling quality and delivery for materials and equipment, and controlling quality and scheduling for construction. By sharing data and working with customers to reduce costs and manage risk, we help ensure project success and maximize value.

Case study An ammonia tank construction project in India

Strengths: Uniqueness and competitive advantage

- TOYO Group's experience and expertise in plant construction in India
- Ammonia tank construction experience, expertise in high-temperature, high-pressure technology
- Providing support and services from engineers skilled in handling ammonia
- High value-added support leveraging quality and delivery control capabilities stemming from extensive EPC experience

Spotlight

Ammonia tank construction project

In India, we have provided AM Green with comprehensive support—from design to procurement and construction management—for its ammonia tank construction project, and have achieved results that meet customer expectations in terms of quality, delivery, and safety.



An ammonia storage tank
(from a past project of Toyo-India)

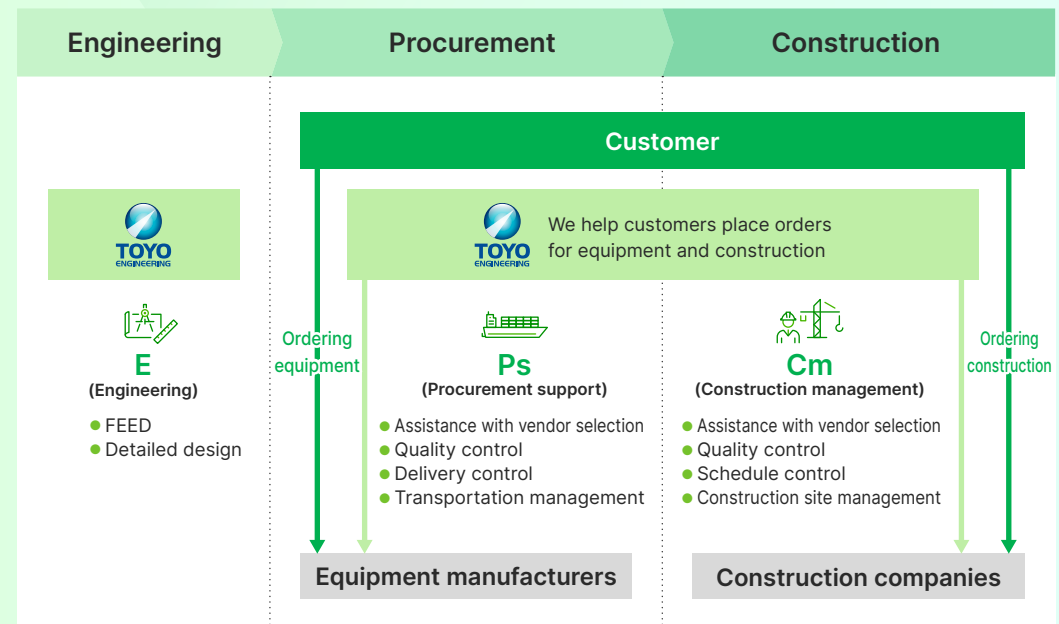


The Toyo-India team

Project structure

We support our customer in every stage of project execution, from design to procurement and construction, throughout the entire plant construction process. In the procurement phase, we work with the customer to manage materials and equipment, including quality control and transportation. In the construction phase, we work closely with the customer on site management and other parts of the construction work. Our flexible, practical structure facilitates the successful execution of the customer-driven project.

EPsCm structure





6 Performance fee-based and subscription-type business

We are deploying new value-added services that help customers maximize earnings throughout the entire plant lifecycle, namely DX-PLANT™, a cloud-based operational support service that leverages our knowledge as a licensor, and HERO, a solution service for saving energy and reducing GHG emissions at operating plants. These services also help us secure stable, sustainable earnings.

Case study DX-PLANT™, a cloud-based operational support service for Bolivian state-owned company YPFB*

Strengths: Uniqueness and competitive advantage

- Implementing advanced knowledge as a urea licensor with more than 100 cases worldwide
- Real-time monitoring and immediate support of plant operations with DX-PLANT™
- Maximizing plant uptime and improving profitability by detecting and swiftly responding to problems
- Real-world implementation in urea, ethylene, and other plants around the world since 2017

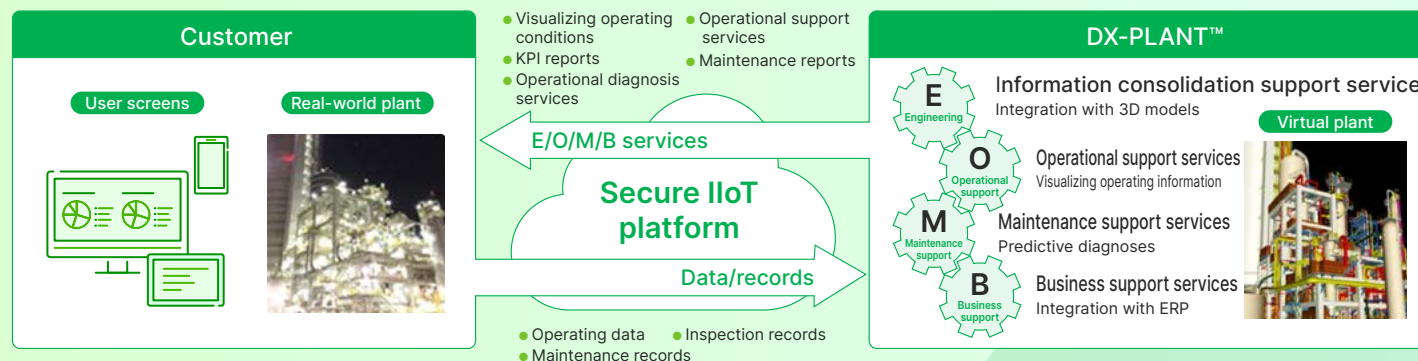
Project structure

The target of the project is the urea plant operated by Bolivian state-owned company YPFB. TOYO established a hybrid support system that combines digital monitoring technology with its urea plant operation expertise rooted in its experience as a licensor. DX-PLANT™ is an all-in-one system that constantly acquires and analyzes operational data remotely at any time and does everything from detecting signs of trouble to immediately responding.

Spotlight

TOYO's support capabilities advancing by combining operational expertise with digital solutions

At YPFB's urea plant in Bolivia, we are achieving operational optimization and early anomaly detection through remote monitoring of operational data, supported by our anomaly visualization system (ADVIDA™) and performance diagnostics system (PMOS™). With these systems, the company enjoys advanced technical support that only TOYO can provide by combining knowledge from the design stage with real-time data from actual operations. DX-PLANT™ goes beyond mere data sharing to serve as core infrastructure linking operations and engineering, which helps customers continuously improve their plants.



Advantages of an all-in-one system that does everything from detecting signs of trouble to immediately responding

Early detection sustains continuous plant operation

DX-PLANT™ is a smart advisory system that detects signs of trouble in plants in real time and issues automated reports and simulations to analyze the causes and propose countermeasures. Troubleshooting can now be done in far less time than the conventional one or two weeks, preventing shutdowns and production loss. This will simultaneously increase plant safety and profitability while also strengthening ongoing relationships with customers and ensure a continuous source of revenue for TOYO's licensing business.

Background of TOYO's ability to provide one-stop support

Support for everything from design to generative AI

TOYO is one of the few companies capable of providing one-stop services covering everything from plant design to operational support and generative AI-based diagnosis and early detection. We accomplish this by leveraging our experience in EPC and process licensing technology, a rare combination of strengths. DX-PLANT™ expedites troubleshooting and performance improvement with remote monitoring of operational data, simulation diagnosis, and automatic generative AI-based reporting, and more. This system—under which users enjoy immediate responses from engineers fully versed in plant design—is a value only TOYO can provide thanks to its involvement in EPC and technology licensing development.



A urea plant in Bolivia
(Photo courtesy of YPFB)

* Yacimientos Petrolíferos Fiscales Bolivianos



7 Co-creation engineering*

In addition to providing R&D support that helps customers demonstrate and commercialize potential new technology, we proactively promote project development through co-creation with companies, universities, and research institutions. We work together with our partners in R&D and solutions, providing support for everything from fundamental research to commercialization. We accelerate the creation of new businesses and real-world implementation of technology through a fusion of knowledge, intellectual property, and technologies.

* Co-creation engineering: Promoting open innovation to create technology and value together

Learn more about
co-creation engineering

[Click here!](#)



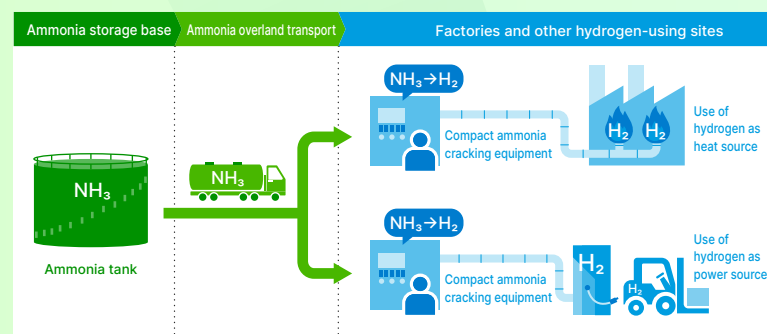
Case study Practical application of compact ammonia cracking equipment

We are taking steps to commercialize compact ammonia cracking equipment as a next-generation technology to accelerate hydrogen utilization toward realizing a carbon-neutral society. We are in the feasibility study phase right now, and are verifying technology, market potential, and economic efficiency from multiple angles with plans to demonstrate the equipment at customers' places of work, all to eventually implement distributed hydrogen supply in society.

Strengths: Uniqueness and competitive advantage

- Technology for producing and consuming energy locally, available on a regional basis
- Compact equipment allows customers to produce hydrogen onsite, an immediate solution to decarbonization needs
- Use of ammonia solves issues with transporting hydrogen
- Support for everything from development to demonstration through collaboration with partners in technology and customers

Illustration of utilizing hydrogen produced by compact ammonia cracking equipment



Project structure

In this project, Chubu Electric Power Co., Inc. and Chubu Electric Power Miraiz Co., Inc. are participating in the development of technology for the compact ammonia cracking equipment we are jointly promoting with Nippon Seisen Co., Ltd., thereby establishing a system to drive the entire process forward from development to demonstration. We started this development because we believed that compact ammonia cracking equipment was needed to meet smaller-scale demand for hydrogen. We and Nippon Seisen are responsible for designing and manufacturing the equipment, while the Chubu Electric Power Group is in charge of market research, evaluating economic efficiency, and technical requirements. The four of us are working together to demonstrate the equipment at customers' places of business with the ultimate aim of making it the first of its kind to be commercialized in Japan.

A partnership for developing next-generation technologies and achieving real-world implementation and commercialization

- Demonstrating compact ammonia cracking equipment and utilization of hydrogen generated by the equipment, examining onsite application technology and equipment operation, studying social needs and market research
- Ascertaining demand and needs, market research, considering and coordinating demonstration sites, evaluating economic efficiency



- Developing compact ammonia cracking technology and engineering the equipment
- Developing compact ammonia cracking technology and engineering the equipment

Value creation through the co-creation of intellectual property

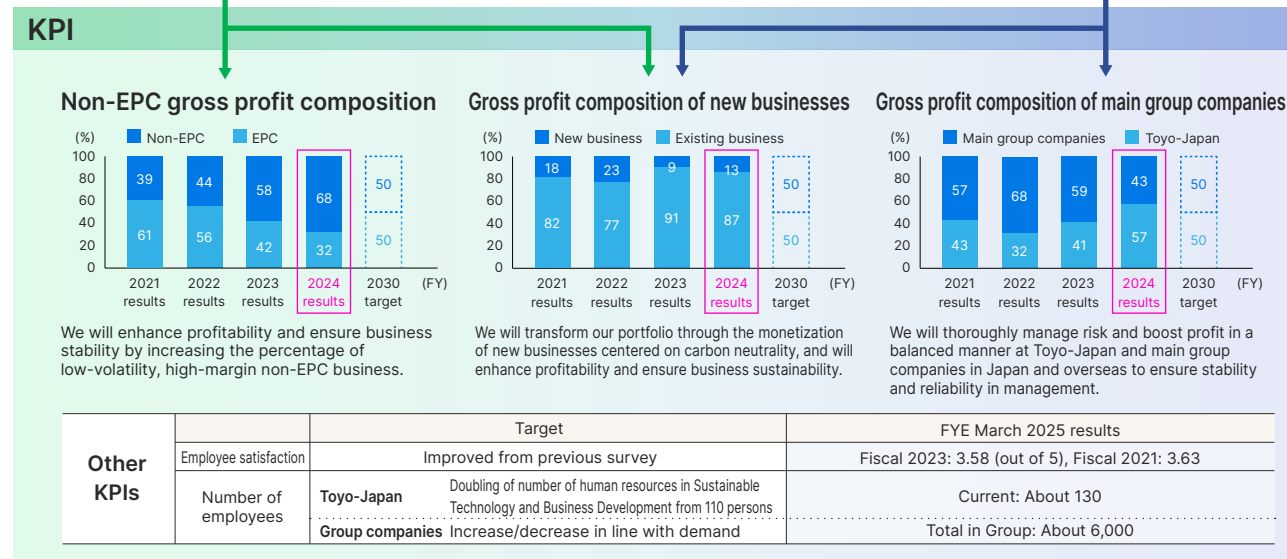
Overview of the Medium-term Management Plan (FY2021-FY2025)

Realize sustainable growth through the double spiral of Sustainable Technology and Business Development and Advanced EPC Operation

- Steadily increase the percentage of low-risk, high-margin non-EPC business to enhance profitability and ensure business stability
- Acceleration is needed to monetize new businesses centered on carbon neutrality. We will expand and transform our portfolio to enhance profitability and ensure business sustainability

Business strategy
briefing materials

[Click here!](#)

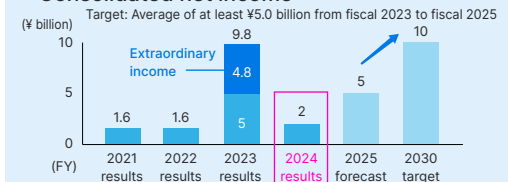


KGI

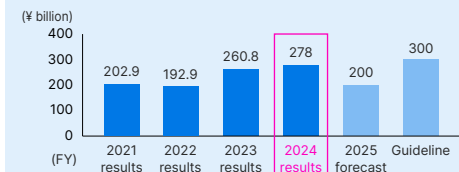
Progress towards achieving KGIs

Although net income fell to 2.0 billion yen and ROE to 3.3% in fiscal 2024 because of some unprofitable projects, we expect the figures to recover to 5.0 billion yen and 8.1%, respectively, in fiscal 2025. As for dividends, the dividend payout ratio will exceed 25% from fiscal 2024 onward.

Consolidated net income

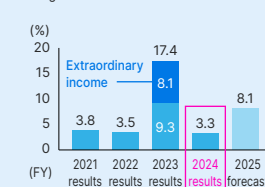


Consolidated net sales



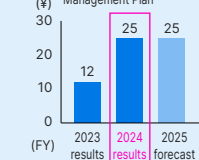
ROE

Target: 10% or more from fiscal 2025 onward



Dividend*

Target: Resume dividend payments during the Medium-term Management Plan



* Dividend per share

We are taking on the challenge of creating new value by addressing issues, for example promoting circular, low-environmental-impact projects, CO₂ utilization and energy saving, next-generation energy, resource and energy security, and quality of life improvement.



For decades, TOYO has provided petroleum development companies with customer support services. Over the past several years, we have leveraged our stockpile of technical capabilities and experience in geothermal development, working toward realizing a Geothermal Carbon Neutral Park that maximizes the potential of geothermal energy as a concept to promote the overall development and optimization of geothermal fields by combining diverse technologies.

The diagram illustrates an overall development plan for geothermal energy optimization. It shows a cross-section of the ground with three wells: a Production well (green), a Closed-loop well (orange), and a Return well (blue). A red arrow labeled 'Geothermal reservoir simulation' points from the Return well towards the Production well. Above the ground, a blue line represents the 'Underground imaging' system. The geothermal fluid from the Production well is used for 'Scale removal' and 'Fiber monitoring'. The fluid from the Closed-loop well is used for 'Metal and mineral recovery' (shown with a battery icon) and 'Flash power generation'. The fluid from the Return well is used for 'Binary cycle power generation' and 'Scale monitoring and management'. The power generated from the flash and binary cycles is sent to the 'Grid'. The grid then supplies 'Green fuel' (Ammonia, Hydrogen, Methanol) and 'Direct use in agriculture, hot springs baths, etc.'.

Visualizing subsurface environments using fiber-optic sensors and other state-of-the-art technology

The timeline is divided into two fiscal years: FY2025 and FY2026.

- FY2025:**
 - Geothermal MP to pilot:** Includes "STEP 1" (Geothermal Master Plan (MP)) and "STEP 2" (Pilot tests).
- FY2026:**
 - Pilot to actual project:** Includes "STEP 3" (Actual project) for both Indonesia and Japan.
 - To actual Project in the future:** Leads to "Carbon Neutral Park development".

Geographical focus: The timeline highlights projects in Indonesia (marked with the Indonesian flag) and Japan (marked with the Japanese flag).

In August 2024, we signed a memorandum of understanding with the Indonesian Ministry of Energy and Mineral Resources to formulate a geothermal master plan. In and after 2026, we will start pilot tests to establish the technology and follow with an actual project in Indonesia. We will also expand horizontally to Japan, which also has geothermal resources.



HERO/ *SUPERHIDIC*™ plant energy saving/GHG reduction service

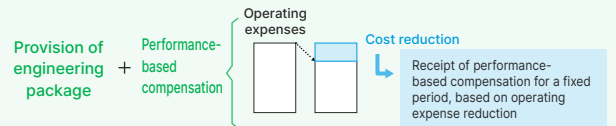
TOYO contributes to the creation of a sustainable society with two services: the HERO technology and consulting service, which enables customers to substantially reduce energy consumption and CO₂ emissions from chemical plants by optimizing their operation and design, and *SUPERHIDIC*™ internal heat exchange distillation towers, the first in the world to be successfully commercialized. Both technologies are effective on their own, but using HERO to derive the optimal installation process and operating conditions for *SUPERHIDIC*™ creates synergy that boosts efficiency for entire plants. Our business model is based on controlling initial costs and reaping the benefits based on performance, and is acclaimed by many customers thanks to the clear return on investment and visualization of environmental contributions.

HERO (Hybrid Energy system Re-Optimization)

- We use mathematical optimization techniques to examine an astronomical number of combinations of process and service flows, including process operating conditions, heat exchange between process fluids, and service conditions

Performance fee-based engineering/consulting model

- Diagnose customer facilities before installation, propose optimal operation and modification plans
- Methodology: Receive performance-based compensation commensurate with actual energy cost reductions
- For specific customers, we provided HERO services for all major plants, helping them create decarbonization roadmaps

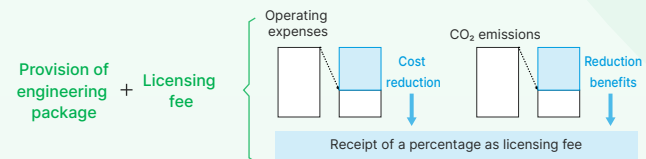


SUPERHIDIC™

- Heat pump technology and distillation operations are integrated and optimized in the distillation tower; heat is circulated internally
- Energy consumption reduced by 40%–70% compared to conventional distillation; proportional reduction in CO₂ emissions

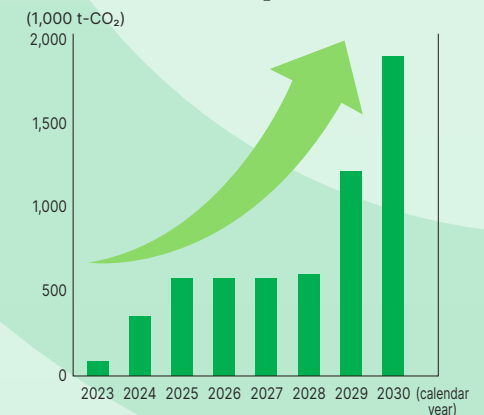
License agreement model

- Provide design and operational expertise of *SUPERHIDIC*™ in the form of a license
- Provide at a license fee commensurate with installed capacity and CO₂ reduction



CO₂ emission reduction target

2030 CO₂ emission reduction contribution (cumulative) 1.9 million tons-CO₂ achieved



○ Plan for demonstration and commercialization

SUPERHIDIC™ towers are in place in several commercial plants in Japan and overseas; the product is already in the commercialization phase. As for HERO, we continue to offer system optimization proposals for individual projects and are currently working toward commercialization. Our target for 2030 is a cumulative reduction of 1.9 million tons of CO₂ emissions through the deployment of both technologies.

CO₂ emission reduction*1 target:
From 110,000 tons to 1.9 million tons by 2030

Europe

SUPERHIDIC™

- Paid FS*2 inspections, licensing contracts under negotiation: 5 cases

India

HERO

- Paid FS: 1 case

Thailand

HERO

- Basic design documents delivered: 2 cases (PTTGC*3)
- Paid FS: 1 case

Japan

SUPERHIDIC™

- Operational: 1 case (Maruzen Petrochemical Co., Ltd.)
- Basic design documents delivered: 1 case

HERO

- Modifications completed: 1 case, Basic design documents delivered: 1 case
- Paid FS: 2 cases

USA

SUPERHIDIC™

- Basic design documents delivered: 1 case

*1 Operational cases + Cases in which basic design documents have been delivered/are under preparation

*2 Feasibility Study

*3 PTT Global Chemical Public Company Limited



Practical application of ammonia fuel for naphtha cracking

The aim of this project is to achieve carbon neutrality by converting the fuel for naphtha cracking furnaces—a major source of CO₂ emissions in the chemical industry—from conventional off-gas (comprising mainly methane) to ammonia. The project is supported by the NEDO* Green Innovation Fund and is being promoted over a 10-year period (fiscal 2021 to fiscal 2030). Although ammonia does not emit CO₂ when burned, it burns slowly and carries the risk of nitrogen oxide (NOx) emissions. To address this, we are developing low-NOx ammonia burners and constructing a test furnace and demonstration furnace to verify their combustion performance.

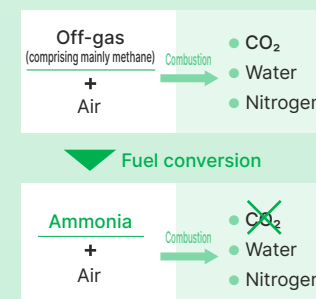
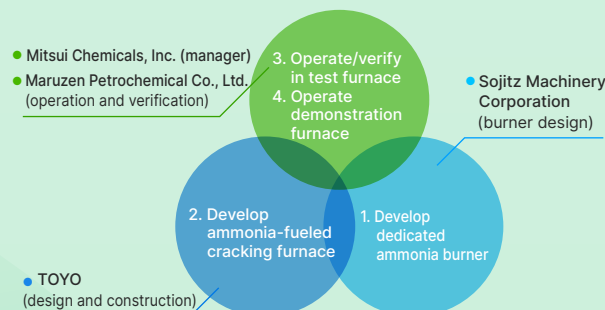
* New Energy and Industrial Technology Development Organization

Underlying technology development underway

- Developing wall and floor-mounted ammonia burners
- Designing and preparing to construct a test furnace
- Establishing a system for demonstration on a scale of several tens of thousands of tons/year

Project scale: ¥23.3 billion
(including roughly ¥16.6 billion from NEDO)
Number of participants: Total of 167
(including 117 from TOYO)
Capable of meeting demand for modifications and upgrades from the existing naphtha cracking furnace market in Japan and overseas

Four-company consortium structure



Left: Combustion in an ammonia burner
Right: A naphtha cracking furnace

Three-pronged monetization scheme

1. Packaging equipment and technology

Provide the ammonia burners, denitration equipment, control systems, and other components we develop as part of EPC packages to chemical plants and petroleum refineries in Japan and overseas. Capture demand for modifying existing naphtha cracking furnaces, a requirement for decarbonization solutions.

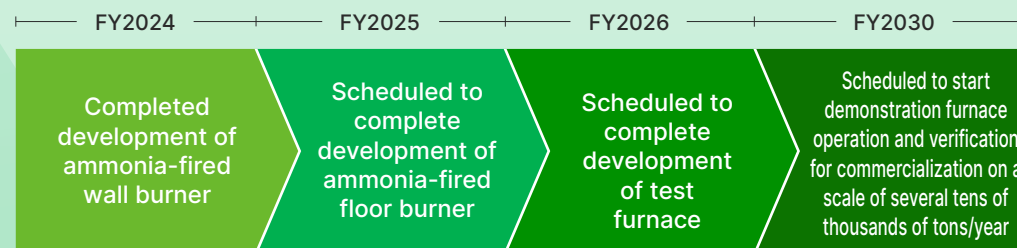
2. Enhance corporate value through decarbonization business

Visualizing CO₂ reductions also helps us enhance our corporate value and improve our reputation for ESG.

3. Accumulate expertise and provide licenses

Develop licensing business for burner and furnace design based on operational data, control technology, combustion models, and other findings from test and demonstration furnaces. The goal is to create standard technology for low-carbon solutions in overseas markets.

Plan for demonstration and commercialization



We aim to establish and develop a practical model of an ammonia-fueled naphtha cracking furnace by fiscal 2030 for eventual application in commercial furnaces. We can also apply the data and knowledge we gain during the development process to ammonia conversion in other heating and industrial furnaces; the technology should be scalable as a general decarbonization solution. These findings are the result of work commissioned by NEDO.

Advanced EPC Operation Strategy

We will further strengthen our competitive advantages in the EPC business by combining Group operations that integrate the collective strength of our domestic and overseas locations with the DX-enabled sophistication and streamlining of operations and reduction of project risks.

Learn more
about DXoT
[Click here!](#)



We have cultivated our EPC execution capabilities since the 1970s and have several locations with extensive track records and experience in India, Brazil, and other growth markets. These locations are valuable strategic assets that competitors do not have, and will help us respond to future economic development and increasing plant demand.

Enhancing
Group
operations



DXoT
[Digital
Transformation
of TOYO]

Integrating EPC and management data and coordinating knowledge and resources by location to enhance the accuracy and profitability of projects and strengthen the agility of the Company by linking strategy and execution.

Enhancing Group operations

Strategy | 01

KPI

Gross profit composition of main group companies

- FY2024 (actual): **43%**
- FY2025: **45% or higher**
- FY2030: **50%**

Note: OFS (Singapore) is an equity-method affiliate and thus is not included

Optimal EPC execution capabilities achieved by combining local leadership with Head Office supervision

Toyo-Japan leads the entire Group as the control tower for highly challenging projects and Sustainable Technology and Business Development areas. Concurrently, locations in each region swiftly accommodate diverse local needs and carry out EPC on their own. Seamless coordination under this system enables us to achieve optimal solutions in terms of quality, speed, and cost for global projects, demonstrating our unique competitiveness in EPC.

[P. 29 Gross profit composition of main group companies](#)

Spotlight Global operations across multiple group companies: FPSO

We are currently implementing four FPSO projects for ExxonMobil, Shell, and other customers through OFS, a joint venture with MODEC, one of the top two FPSO companies in the world. We have seconded more than 70 employees to the joint venture, focusing on these projects as core initiatives within the EPC business. Our strong partnership with MODEC underpins our dependable project execution and competitive advantages in the global market.



Global execution system for FPSO projects OFS: approx. 1,000 employees, to be further expanded in the future

Location 1 India (approx. 100 employees)

Responsibilities: FEED, detailed design, procurement support services

Location 2 Singapore (approx. 700 employees)

Responsibilities: Head office functions/project management

Location 3 Malaysia (approx. 250 employees)

Responsibilities: Project management

[P. 44 Defining FPSO/FPSO market outlook](#)

DXoT (Digital Transformation of TOYO)

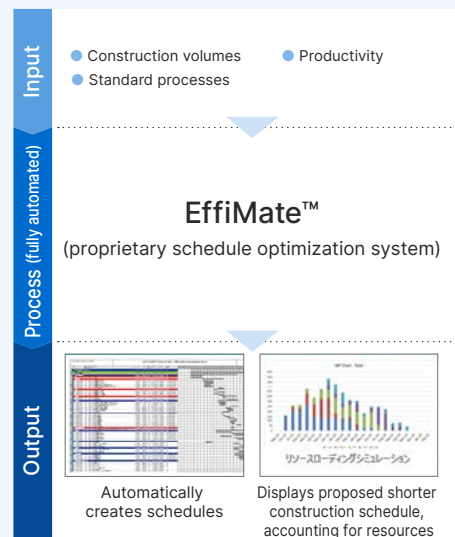
Strategy | 02

Strengthening projects

EffiMate™, foundation of management capabilities

The system uses mathematical optimization techniques to automatically optimize thousands of processes and detect and respond to execution risk areas, strengthening project execution and expediting completion.

Project productivity **+40%** Schedule shortening plan **1.5 months**



Number of DX-enabled projects through FYE March 2024 **12** Number of projects

We apply DX to all EPC projects, and are expanding its application.

We are also promoting application in carbon neutrality-related projects.

DXoT strategy

Goal: Transform from a conventional human-leveraged value-added creation model to a hybrid human-digital-leveraged high value-added model

Strengthening projects

Realizing next-generation EPC that digitally links all engineering, procurement, and construction processes to improve forecasting accuracy and reproducibility

Corporate resilience

Realizing data-based visualization of human resources, investments, and risks to optimize and expedite decision-making

Human resources strategy

Strengthening development and collaboration of human resources with both knowledge gained from the field and digital skills

[P. 60 Learn more](#)

Aims of DXoT strategy

1. Cost reduction

Utilizing data to streamline operations and optimize allocation and procurement

2. Securing the human resources that form the core of business

Adopting digital alternatives to some tasks typically handled by humans

3. New business development

Investing some of the human resources and profits secured in the first two steps into new business development

4. Maximizing digital investment ROI

Transforming into a "hybrid human-digital-leveraged" organization to improve sustainability

Improving profitability by applying DX

Estimated ROI from DXoT

● FY2025 ¥2.5–¥3.5 billion ● FY2026 ¥4.5–¥7.5 billion

Corporate resilience

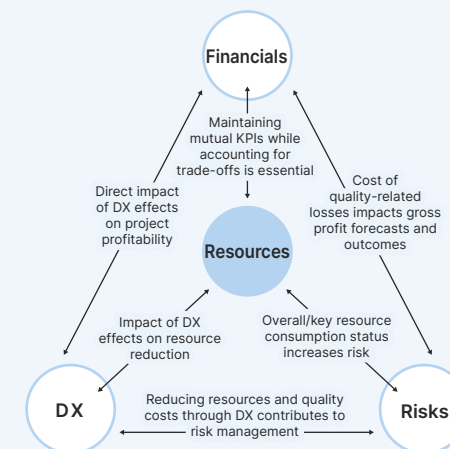
Data- and model-driven operating model

Our data- and model-driven operating model integrates EPC project data with management data. Then, the Corporate Management Cockpit (CMC)—a management digital twin equipped with mathematical models—uses the integrated data to immediately create multiple scenarios to optimize strategy and resource allocation.

CMC enables real-time visualization and forecasting of financials, resources, DX investments, and risks for more strategic decision-making. With data and simulations, swift responses are achieved.

Advanced decision-making based on a data model with interlinked KPIs

Interrelated KPIs influence decision-making



DXoT CLOSE-UP

AWP-based project management

Defining Advanced Work Packaging (AWP)

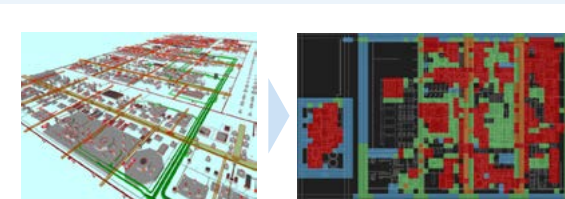
AWP is a method of dividing projects into manageable units (work packages) and creating, executing, and managing network schedules based on plans for drawings, materials, resources, and other constraints. Combining DXoT with AWP is a new and innovative way to manage projects. With this approach, we aim to achieve sustainable growth through a “hybrid human-digital-leveraged” high value-added model. To maximize the value of AWP, we established the AWP Management Office (AMO) comprising business execution support, data management support, and information technology (IT) system operation support teams to support AWP implementation at each location.



Real-time progress management using 3D digital twins



AMO supports DX promotion onsite



3D model

AI risk detection model

AI used to detect construction delay risks from 3D models and take countermeasures in advance

Spotlight 1 Toyo-India EPC project

The EPC project Toyo-Japan and Toyo-India are working together on was launched in March 2023 as the first attempt to fully implement AWP. With support from AMO, new data-centric workflows are being established for engineering, procurement, and construction processes, and steady changes are happening in all areas. Efforts to date have produced many lessons, and continued efforts to improve the accuracy and stability of operations will lead to shorter construction schedules, higher productivity, and further enhanced profitability.

- Through process optimization, created a plan to shorten the construction schedule by **1.5** months and reduce personnel expenses by **7%**
- Realized a **1.5%** reduction in piping installation costs by using 3D twins in construction to reduce rework
- Through AI risk detection, prevented touch-ups in the field

Spotlight 2 Project in Japan with full AWP implementation

Within Toyo-Japan's domestic EPC project launched in October 2024, the company is promoting DX and AWP in all areas of engineering, procurement, and construction. Specifically, EffiMate™ allows the company to mutually link processes and resources, reducing execution risk while increasing productivity. This is the first attempt of its kind in Japan, and will be expanded to other projects in the future.

- Reduced execution risk by fully synchronizing scheduling processes and resource planning
- Automated processes and resource planning, realized **5x** process detailing
- Design work time reduced by **16%** through automated linkage

Driving Force for Value Creation

The wellspring of TOYO's value creation lies in our intangible assets: human resources, technologies, and group companies.

With these intangibles as our driving forces, we will create added value by providing high-quality services that leverage our strengths in a broad range of businesses to meet the needs of our customers and society.

Global network P. 41

Global operational capabilities supporting services with regional roots

Each of our locations around the world has its own specialized product areas and advanced EPC capabilities. They engage in independent management with regional roots while carrying out projects worldwide in solidarity with the TOYO Group.

Wellspring of our value creation

Human resources P. 38

Autonomous professionals with extensive knowledge and experience

Each employee has core areas of expertise, and we create higher added value by linking and intensively integrating each area and developing it into new wisdom. Toward that end, we aim to be a professional organization that always learns and a group on which customers can rely.

Technology P. 39

Realization of real-world implementation through proprietary technology and co-creation engineering

We continually refine (1) our proprietary technologies in areas including urea and methanol and (2) co-creation engineering that achieves real-world implementation as a partner of our customers, identifying promising technologies through diverse technological expertise and discernment built up through project experience, and further enhancing these with our technologies, knowledge, and expertise.

VALUE CREATION

Accumulated capital

We will achieve sustainable growth by effectively utilizing our five types of capital, which consist of capital for creating value and capital accumulated by sustaining our business.



Human capital

We recruit and train talented people around the world without regard to gender, age, nationality, or other irrelevant characteristics. As a group of professionals with a broad range of specialties and skills, we provide high-quality services that resolve the issues of our customers and society.

Number of employees
6,229 (consolidated)

Number of employees with
major qualifications*

Registered Professional
Engineers (Japan) **16**

Professional Engineers **92**

* As of March 31, 2025
Toyo-Japan only



Natural capital

We minimize our impact on natural capital through efforts such as reducing Scope 1 and 2 GHG emissions by promoting energy saving, generating our own green power, and purchasing electricity generated from renewable energy, as well as reducing Scope 3 GHG emissions by providing proprietary services based on our advanced technical capabilities.

Electricity usage at domestic
and overseas offices **10,448** MWh

Electricity usage at domestic and
overseas construction sites* **7,625** MWh

* Including 6,836 MWh from renewable energy

Water usage **20,600** m³

Scope 1 & 2
GHG emissions **10,801** tons

Scope 3
GHG emissions
Note: Categories 1-7 **589,987** tons



Intellectual capital

We will continue to enhance the competitive advantages of our urea technology and other proprietary technologies dating back to our founding and combine them with affiliated technologies of our strongest partners to provide optimal solutions to the issues of our customers and society.

DX investment **¥2.5** billion

R&D expenses **¥1.5** billion

Number of registered patents **243**



Social and relationship capital

We marshal the strength of our global network, information, and partners built over more than six decades in business to enhance the collective strength of the TOYO Group and execute projects efficiently to meet customers' needs.

Number of domestic and overseas
EPC-related locations

16 in 11 countries

[Japan, South Korea, China,
Indonesia, Malaysia, India,
Singapore, Brazil, etc.]

Number of registered
suppliers **2,399**

Number of countries
in which we have
implemented projects **More than 60**



Financial capital

We win and execute projects worldwide based on our Medium-term Management Plan strategy to build a strong financial base by maintaining proper levels of equity capital and interest-bearing debt with an awareness of capital efficiency, all with the aim of achieving sustainable growth.

Equity **¥60.2** billion

Interest-bearing debt **¥51.9** billion

The Boundary-Crossing Professionals who welcome change and operate across boundaries

For its future, TOYO will need adventurous experts who operate across boundaries. These people can learn, connect, and create new wisdom beyond their areas of expertise, crossing boundaries between customers and their own companies, old and new, Japan and the world, the front lines and management, and even work and life. A group of people who welcome change and can change themselves as circumstances demand will create high value by linking and deeply integrating their expertise as individuals without separation between areas.



Examples of the Boundary-Crossing Professionals TOYO aims to develop

WILL human resources

People with an entrepreneurial mindset who can consistently handle everything from planning and testing the feasibility of new businesses to developing and executing business plans

Requirements and expectations

Will	Initiative	Innovation	Incubation	Liberal Learning
Ability to enthusiastically commit to creating new business	Ability to think and act on their own, make decisions, and mobilize organizations	Ability to create unprecedented value by incorporating new ideas and technologies	Ability to lead commercialization and implement business	Constant learning to improve capacity for deep thinking, effective communication, and searching for information

WILL human resources development case study

We are implementing the WILL Plan, a program for creating new businesses, with the aim of developing WILL human resources. Under this program, ambitious employees obtain a budget through an internal screening process and proactively promote their projects, taking full responsibility for the business model, economic efficiency, and technical and other aspects. The next generation of human resources develops not only when their projects succeed, but also from the experience they gain and lessons they learn in the process. The willingness of employees to find and tackle challenges on their own and learn from their efforts—including their failures—embodies the values that TOYO seeks in its employees.

Words from a pioneer

Leveraging engineering experience to tackle a new challenge: Growing tomatoes!

I am working on a project to grow tomatoes year-round in Okinawa. Normally, tomatoes are harvested from October to May, but under my project, I will grow and ship tomatoes consistently throughout the year by taking advantage of Okinawa's climate—relatively cool summers (few days with highs over 35°C) and warm winters. As an engineer, I worked on plant instrumentation and control design and technology for 10 years. I used that experience to build a homemade growing system that has worked without issue and is less expensive and more competitive than other systems on the market.

When I look at farming—a complete departure from TOYO's core business—I often feel that technical aspects have not been sufficiently considered, and that our engineering technology can be used to make more efficiency and productivity improvements. I will continue to challenge myself with the intent to use my engineering knowledge and experience to improve farming.

Hiroki Miyata, WILL Project PM, Corporate Strategy Department



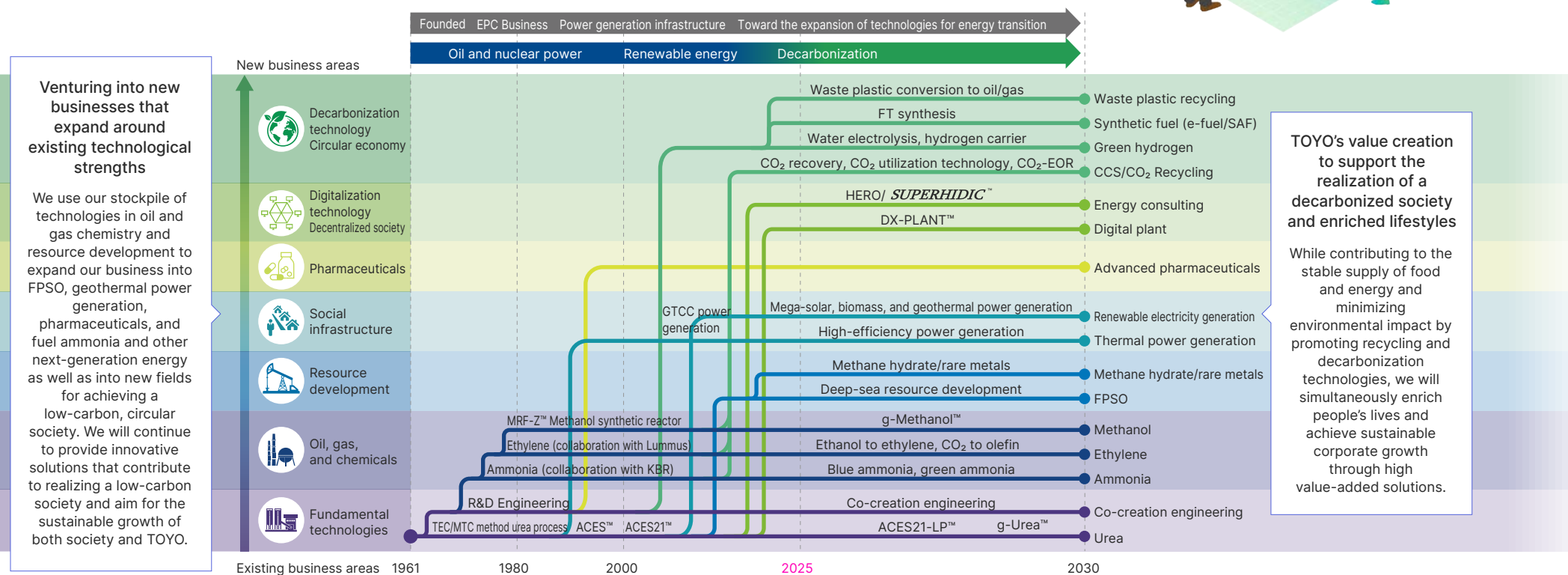
Our history of unremitting efforts to enhance our technical capabilities

Since our founding, we have promoted streamlining and transitions to larger equipment in manufacturing processes and equipment centered on proprietary technologies for urea, methanol, and other chemicals, and by saving energy and boosting performance have earned the trust of our customers.

Over the past several years, we have accelerated co-creation engineering with partner companies and our use of AI to realize a decarbonized, circular society, and we will continue to constantly refine our technical capabilities to contribute to resolving social issues.



Phylogenetic tree of TOYO's technology



Promoting technology creation through four functions

As a non-financial capital-oriented company with no manufactured capital, TOYO promotes value creation centered on people and technology. In our Medium-term Management Plan, the intellectual property and licensing business is positioned as a foundation of profits, and the four functions—T-Next (next-generation technology), T-Labo (research center), IP Management, and DX Solution—are integrated to accelerate R&D and real-world implementation. Acquiring rights to and commercializing the knowledge we create enables us to achieve both differentiation and profitability, thereby enhancing our competitive advantages for sustainable growth.



Next-G Technology & Application Division (T-Next), the elite program team leading TOYO's development of next-generation technology

T-Next is a next-generation technology development team with expert engineers serving as program leaders. The team is tasked with everything from research and conception to development and implementation. Through internal and external collaboration, T-Next is tackling the challenge of creating new value together with intellectual property and DX departments and promoting innovative projects that will become TOYO's growth drivers.



Business engine that converts IP into strategy and increases added value

IP Management functions as the core of our IP strategy that links the stages from technology creation to commercialization. In collaboration with the Technology Portfolio Strategy Committee and development departments, we are creating and acquiring rights for intellectual property for future competitive advantages and supporting the creation of a licensing revenue mechanism to lead the creation of a business model that goes beyond the bounds of EPC. We take steps to differentiate from competitors and maximize profitability while supporting the real-world implementation of technology, which helps us achieve sustainable growth and enhance our corporate value.

Toyo Engineering Technology Research Center (T-Labo), our new center for demonstrating next-generation technologies

T-Labo—our new technology research center in Ohnodai, Chiba—has evolved into the core location for our technological innovations. In addition to enhancing our stockpile of technologies, we are advancing the development of groundbreaking technologies for fuel ammonia, synthetic fuels, SAF, and other types of next-generation energy as well as in circular and low-environmental-impact fields. Through research fueled by co-creation with partner companies and demonstration in pilot facilities, we aim to accelerate real-world implementation and commercialization to both realize a sustainable society and enhance our corporate value.

T-Labo!

T-Next
Be a Trailblazer

IP Management

DX Solution

Next-generation engineering solutions that swiftly accommodate customer needs, enabled by IoT and AI analysis

We offer DX-PLANT™, a digital solution that uses IoT technology, big data, and AI-based analysis technology to help customers optimize equipment operation, perform preventative maintenance, and improve profitability. While developing digital solutions, we are able to quickly and accurately identify customers' needs and create optimal digital technologies through a seamless collaboration system that transcends organizational boundaries. The operational streamlining and optimization delivered by our solutions helps our customers improve productivity and reduce costs at their plants.



Engaging in engineering with regional roots

Each location has its own specialties and advanced EPC capabilities, and the TOYO Group is united in its efforts to engage in engineering with regional roots.

Information
about our
locations

[Click here!](#)



1 India (Toyo-India)

Years since establishment	Number of employees*1	Number of projects*2
49	2,332	626

Focus/specialty areas

- Initiatives for business development in the decarbonization field in India, in collaboration with Toyo-Japan
- Initiatives for the petroleum refining and petrochemical-related EPC projects and consulting businesses in India
- Execution of urea and ammonia projects by project organizations led by Toyo-India human resources

2 Malaysia (Toyo-Malaysia)

Years since establishment	Number of employees*1	Number of projects*2
39	205	168

Focus/specialty areas

- Numerous modifications to oil, gas, and petrochemical plants
- Numerous modifications to high value-added chemical and oleochemical plants
- Constantly winning orders from Japanese customers for maintenance and modifications
- Focusing on inorganic chemical plants (rare metals)

3 Indonesia (IKPT)

Years since establishment	Number of employees*1	Number of projects*2
43	803	112

Focus/specialty areas

- Promotion of networking and strengthening of relationships with stakeholders and customers
- Digitalization of engineering work
- Building experience with geothermal power generation EPC through strategic partnering (contributing to Indonesia's carbon neutrality and local development)

4 Japan (TEC Project Services (TPS))

Years since establishment	Number of employees*1	Number of projects*2
38	241	137

Focus/specialty areas

- Advancing customer-driven design, construction, and maintenance (validation) support in pharmaceutical and fine chemical fields
- Strengthening planning, safety, and quality capabilities in maintenance and repair work, and securing stable earnings
- Promoting transformation to a new business model that is both profitable and flexible through improvement activities led by front-line personnel

4 Japan (Toyo-Japan)

Years since establishment	Number of employees*1	Number of projects*2
64	1,163	1,692

Focus/specialty areas

- Real-world implementation of next-generation energy through carbon-neutral technologies (developing and deploying key technologies for ammonia, hydrogen, synthetic fuels, etc.)
- Creating new business with co-creation engineering (real-world implementation of waste plastic conversion to oil and other underlying technologies, with support for commercialization and licensing)
- Establishing intellectual property and licensing revenue models (high-profit, low-risk non-EPC business utilizing proprietary technologies for urea, methanol, and other chemicals)
- Strengthening management in EPC business (streamlining and improving profitability through DXoT and advanced PM systems to support global projects)
- Collaboration of human resources, technologies, and group companies for sustainable growth (centered on T-Next and T-Labo; Japan Head Office assumes the leading role for strategy and technology)

5 South Korea (Toyo-Korea)

Years since establishment	Number of employees*1	Number of projects*2
38	314	122

Focus/specialty areas

- Continuous orders and consistent project execution for petrochemical plants in South Korea
- Designing and constructing plants for advanced industries (e.g., semiconductors, secondary battery materials)
- Promoting overseas projects in the polymer field
- Surveying trends toward carbon neutrality, exploring potential support

6 China (Toyo-China)

Years since establishment	Number of employees*1	Number of projects*2
21	318	338

Focus/specialty areas

- Supporting investment in China by Western and Japanese companies—mainly in the chemical field—with a focus on projects involving manufacturing and processing (downstream) petroleum and chemical products
- Expanding beyond energy into new energy areas (e.g., electronic and lithium battery materials, pharmaceuticals)
- Promoting the creation of and support for business opportunities linked to customers' carbon neutrality initiatives
- Expanding beyond China into foreign markets, providing design support for Japanese projects, and participating in pharmaceutical plant projects

7 Brazil (TSPI)

Years since establishment	Number of employees*1	Number of projects*2
13	610	24

Focus/specialty areas

- Maintaining a solid foundation in the oil, gas, and electric power fields, promoting low-carbon business by leveraging strategic locations in Brazil
- Continuously raising safety awareness and standards through HSE*3 campaigns (e.g., encouraging workers to halt when uncertain about actions)

*1 As of March 31, 2025

*2 Cumulative total since establishment (including engineering work, etc.)

*3 Health, Safety, Environment

8 Singapore (OFS)

Years since establishment	Number of employees*1	Number of projects*2
3	75*4	4

Focus/specialty areas

- Two EPCI*5 projects underway in Guyana (for ExxonMobil) and Brazil (for Equinor)
- Two new EPCI*5 projects for Shell and ExxonMobil launched in 2025

*4 58 employees seconded from Toyo-Japan + 15 employees seconded from Toyo-Korea + 2 employees seconded from Toyo-India

*5 Engineering, Procurement, Construction, Installation



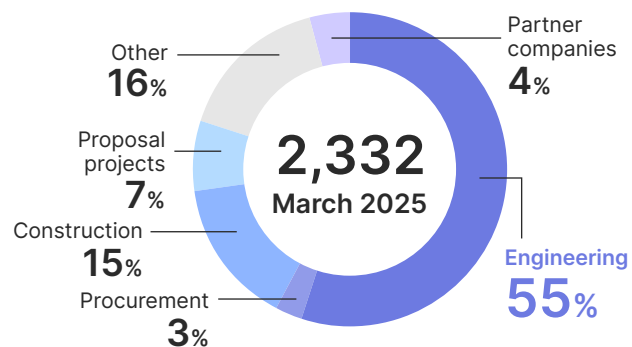
India (Toyo-India)

Spotlight | 01

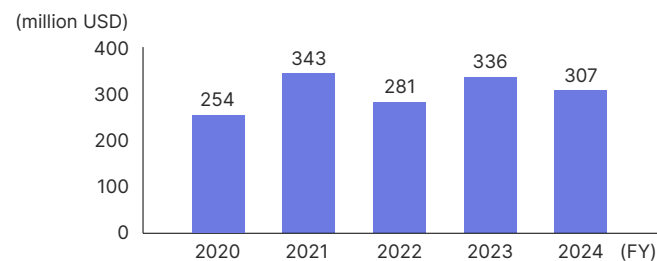
49 years since establishment

- **Hub for global project execution**
Complete array of design and procurement functions covering oil and gas, ethylene, ammonia, urea, FPSO, and decarbonization
- **Over 50 years of experience combined with local expertise**
Immediate response to diverse needs with experience and India-specific knowledge cultivated over many years

Number of employees



Net sales



• Making EPC and PMC smarter with DX

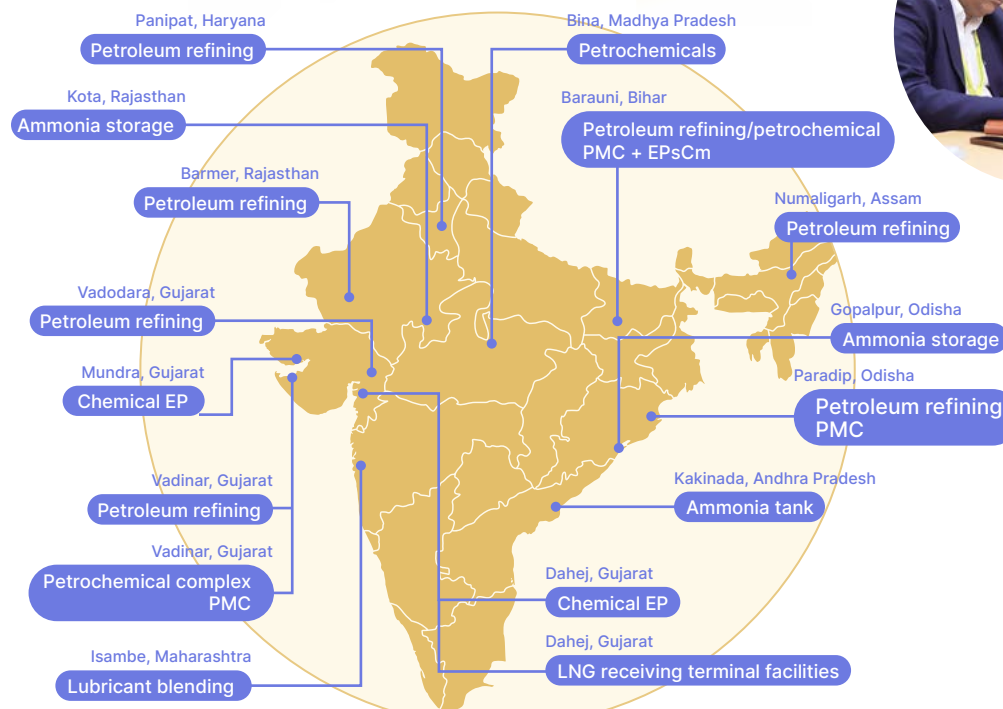
Vaulted into the most trusted Tier-1 engineering company by delivering high efficiency and added value through digital technology



Toyo Engineering
India Private Limited



Major projects in progress





Indonesia (IKPT)

Spotlight | 02

43 years since establishment (joined TOYO Group in 2012)

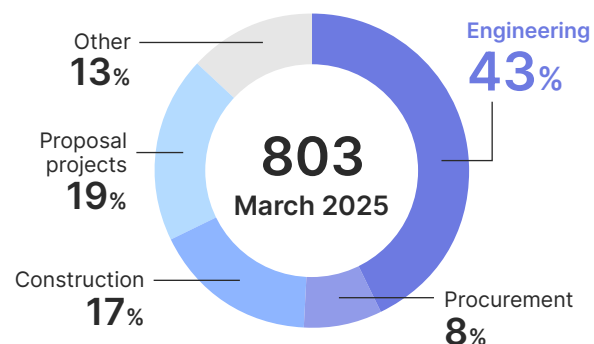
Growth strategies

- Aiming to further expand geothermal power generation business through strategic alliances with technology partners, focusing on the business as a sustainable growth area
- Entering the circular economy market through PET recycling business for textiles amid growing demand for green products

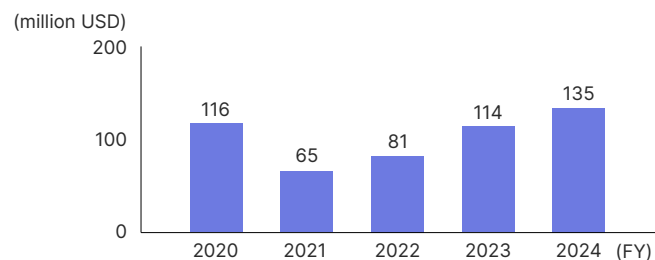
- Working with strategic partners from the FS/FEED stage to develop markets in green ammonia and other decarbonization-related fields


 PT. Inti Karya
Persada Teknik


Number of employees



Net sales



Major projects in progress



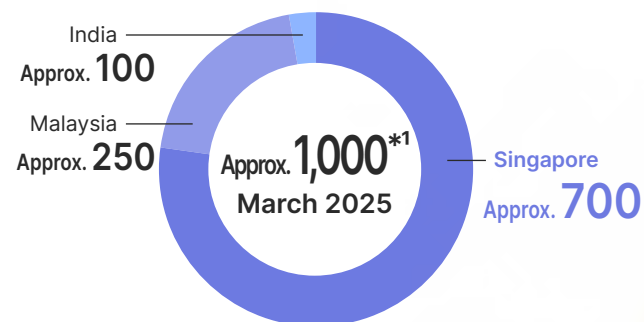


Singapore (OFS)

Spotlight | 03

3 years since establishment

- OFS, a joint venture with MODEC, one of the top two FPSO companies in the world. Implementing a major FPSO project with a total of approx. 1,000 employees (including approx. 70 seconded from TOYO)
- Combining engineering and project management capacity with digital technologies to achieve high added value and profitability

Number of employees *1 Includes employees seconded from MODEC


FPSO

Defining FPSO

Applications
Production and storage facilities used in the midstream area of offshore oil and gas development

Functions
Producing and storing crude oil and gas from offshore oil fields, loading them onto tankers and pipelines

Construction method
Modifying existing tankers
Constructing with new hulls

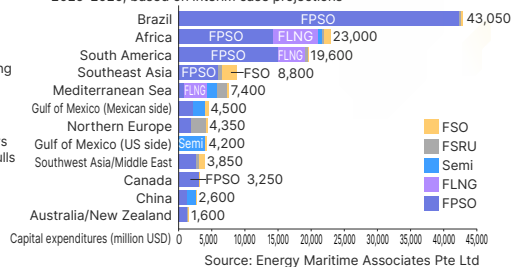
Construction expenses
\$1.0–\$3.0 billion

Construction period
3–5 years

FPSO market outlook

- Projected total investment: \$126.0 billion (2025–2029)
- More than 70% of which is investment in 54 FPSOs

Projected total capital investment in all types of FPS by region (million USD) 2025–2029, based on interim case projections



Major projects in progress

Global execution system for FPSO projects

- India**
OFS location (FEED, detailed design, procurement support services)
- Malaysia**
OFS location (project management)
- Singapore**
OFS head office (project management)

Offshore Frontier Solutions Pte. Ltd.



Guyana

FPSO Errea Wittu (Uaru)
250,000 barrels of crude oil per day

Hammerhead FPSO (order received: 2025)*2
150,000 barrels of crude oil per day

Brazil

FPSO Raia
125,000 barrels of crude oil per day

Gato do Mato FPSO (order received: 2025)
120,000 barrels of crude oil per day

*2 Limited Notice to Proceed (LNTP) contract for the ExxonMobil Hammerhead project

SUSTAINABILITY

Initiatives for Sustainability

Basic policy

We have identified four materialities (important management issues) aimed at achieving our mission of “Engineering for Sustainable Growth of the Global Community,” and also strive for sustainable growth along with our stakeholders while fulfilling our distinct role as an engineering company under our Sustainability Basic Policy. Additionally, with the recognition that addressing sustainability-related issues is an important management issue that helps us both reduce risks and capture new business opportunities, we are promoting sustainability throughout the Group to enhance our corporate value in the medium and long term.

Sustainability
Basic Policy

Click here!



Sustainability promotion system

In the course of implementing our Group-wide sustainability initiatives, we established the Sustainability Committee (chaired by the Director and Executive Vice President, Chief Commercial Officer (CCO)) as an advisory body to the Executive Committee. The Sustainability Committee plans, promotes, and monitors initiatives under appropriate supervision by the Board of Directors. Under this committee, we have further established subcommittees in the areas of the environment and human rights. These engage in initiatives in collaboration with Operation Units and Group companies.



Risk management

Based on our Basic Policy on Internal Control Systems, we identify changes in the business environment and other events that may pose risks, and maintain and execute a risk management system after clarifying the processes of classifying, analyzing, evaluating, and responding to the risks and the relevant departments and related regulations. To assess and address potential risks as early as possible, we conduct periodic reviews, identify key risk factors, and carry out risk management.

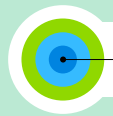
Endorsing and applying international frameworks

TOYO has endorsed international frameworks to promote sustainability. In December 2021, we signed the United Nations Global Compact (UNGC) as a declaration that we operate in line with the principles on human rights, labor, environment, and anti-corruption advocated therein. In November 2021, we endorsed the TCFD*1 recommendations and disclosed and published the requisite information on climate change.

*1 Task Force on Climate-related Financial Disclosures

MATERIALITY

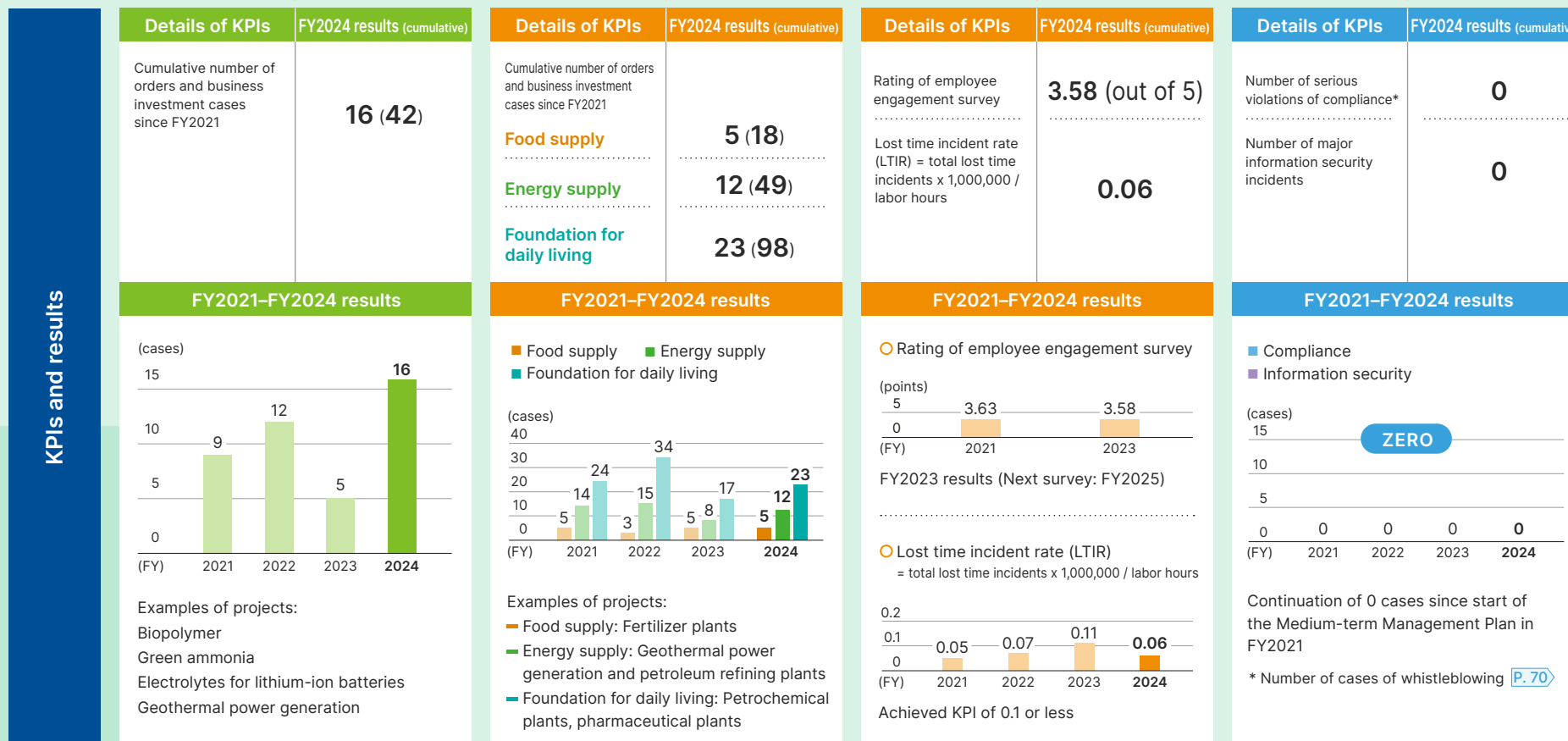
Materiality (Important Management Issues)



Mission

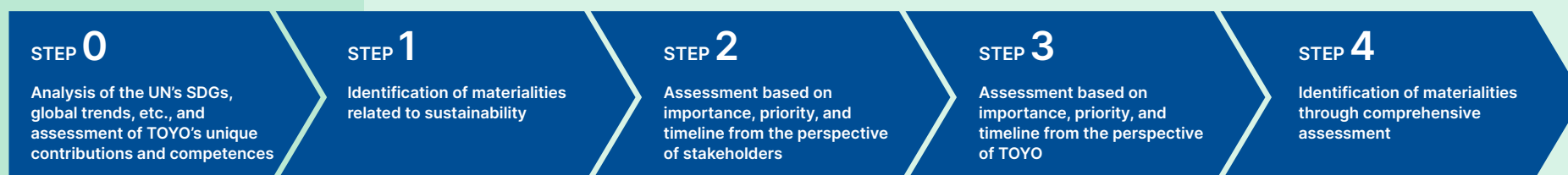
Engineering for Sustainable Growth of the Global Community

Materiality (Important Management Issues)	Environment	Social	Social	Governance
	Aim to realize an environmentally friendly society	Enrich people's lives	People of diverse backgrounds engage in active, meaningful work	Establish an organization with integrity and discipline
Priority areas	- Pursuit of low-environmental-impact plants - Contribution to achieving a circular economy - Pursuit of next-generation energy	- Contribution to energy security, strengthening of foundation for daily living, and resolution of food problems - Technology transfer and the strengthening of industrial infrastructure through business execution	- Training and developing human resources - Promoting health and productivity management - Promoting inclusion - Enhancing work-life balance - Human rights initiatives	- Corporate governance - Compliance
Risks and opportunities/actions	Risks	Risks	Risks	Risks
	- Loss of business opportunities and decline in corporate value due to delayed action on technological development aimed at carbon neutrality, low environmental impact, and the future circular economy - Hindered execution of plant construction as a result of increasingly frequent and severe natural disasters caused by abnormal weather conditions P. 49 Climate change risks and opportunities	- Market access restrictions, supply shortages, and supply chain problems due to increased regionalism and other factors; more severe low-price competition due to delayed technological innovation, etc. - Stagnant demand for new plant construction as a result of insufficient funds and political instability caused by weak industrial infrastructure in emerging countries	- Outflow of talented human resources and decline in technical capabilities, competitiveness, labor productivity, and motivation if failing to take suitable action - Business continuity risks and the loss of trust from customers and communities due to occupational accidents	- Business continuity risks caused by compliance failure and information security incidents - Risks of major losses and business continuity risks caused by corporate governance failure
Risks and opportunities/actions	Opportunities/actions	Opportunities/actions	Opportunities/actions	Opportunities/actions
	- Innovations in environmentally friendly technology related to global warming prevention and waste recycling, and appearance of new business opportunities using these - Increase in business opportunities related to carbon neutrality and the circular economy under a growing need for decarbonization and a circular economy	- Increase in business opportunities related to securing the food, energy, etc. essential to daily life - Expansion and smooth execution of local business through the utilization and training of talented local human resources in harmony with communities - Creation of new business opportunities through technology transfer and job creation involving plant construction	- Continued development via in-house communication of our Medium-term Management Plan strategy through employee retention - Increased business creation opportunities through technological innovation and the maintenance and enhancement of our competitiveness, as a result of taking appropriate actions to secure talented human resources and boost both labor productivity and motivation	Construction of a stable, resilient business execution foundation based on prompt, highly transparent decision-making under a solid governance system



○ Materiality (important management issue) identification process

Using the process outlined below, TOYO identified four materialities to be tackled as priorities. We are acting on these based on deliberations and decisions made by the Executive Committee and the Board of Directors.



ENVIRONMENT

Materiality (Important Management Issues)

Aim to Realize an Environmentally Friendly Society



○ Environmental philosophy and basic policy

TOYO recognizes that preserving the global environment and preventing global warming are issues shared by all humankind. Under this recognition, we established our mission (“Engineering for Sustainable Growth of the Global Community”), one of our materialities (“Aim to realize an environmentally friendly society”), and the following basic environmental philosophy, and engage in business activities accordingly.

- We contribute to the achievement of sustainable communities and society, enabling both advancement of humanity and preservation of the environment.
- As an international company, we provide engineering services in harmony with the global environment.

In our Basic Policy on HSE, Quality, and Information Security, we outline our commitment to the environment, which is to “minimize environmental impact by saving resources and energy, detoxifying, reducing and recycling waste, and by preventing environmental pollution during the course of our business activities.”

Environmental management

Based on ISO14001 certification standards, TOYO implements the environmental management actions at right within relevant divisions, particularly in projects in Japan. We also confirm that these actions are effectively implemented through internal audits and external audits by ISO certified bodies.

1. Evaluate compliance with environment-related laws
2. Formulate and implement the set of three environment-related actions (evaluation of environmental impacts, setting of environmental targets, and implementation of environmental programs)
3. Take and monitor environmental measurements at construction sites

Responding to Climate Change

In November 2021, TOYO endorsed the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations of the Financial Stability Board (FSB); the endorsement is part of our basis for formulating strategies and engaging in initiatives.



Learn more

[Click here!](#)



○ Disclosures based on TCFD Recommendations

TOYO discloses information in compliance with the TCFD Recommendations, and also began responding to the CDP in 2024.

Governance

[P. 45 Sustainability promotion structure](#)

Risk management

[P. 45 Risk management](#)

Strategy (risks and opportunities/actions)

[P. 49 Strategy](#)

Metrics and targets

[P. 50 Carbon neutrality](#)

○ Strategy

In line with the TCFD Recommendations, we identify and analyze key factors impacting our business in two main scenarios*—transition risks (policy and legal, technology, market, and reputation) and physical risks (acute and chronic)—and reflect and utilize them to formulate medium-term management plans and other strategies.

We have identified three key factors for technology, products and services, and markets. First, over the medium and long term, the shift to clean fuels will decrease opportunities for conventional plants in the oil and gas and petrochemical industries (though there will be more opportunities for transitions in the short and medium term), while new manufacturing methods and other developments will increase opportunities for non-conventional plants. Second, there will be more opportunities to utilize our expertise and experience with ammonia, hydrogen, synthetic gas technology, CO₂ utilization, and the like (for demonstration in the short and medium term and full-scale implementation over the medium and long term). Third, there will be more opportunities in energy conservation, circular economy fields such as waste plastic and recycled plastic, and high-performance materials (in the short, medium, and long term).

* Analysis primarily references (1) the 2.6°C scenario, or Stated Policies Scenario (STEPS Scenario), and (2) the 1.5°C scenario, or Net Zero Emissions by 2050 Scenario (NZE Scenario) of the International Energy Agency (IEA)

		Risks	Opportunities/actions
Transition risks (primarily under 1.5°C scenario)	Policy and legal	Decreased demand for conventional plants due to decline in demand for fossil fuels associated with introduction of carbon pricing and other regulations, increase in costs due to rising raw material and equipment costs	Increase competitiveness by generating renewable electricity, increasing opportunities to win orders for non-conventional plants, and procuring raw materials and equipment for reducing/eliminating carbon
	Technology	Lost business opportunities due to delays in new low-carbon/decarbonization technology development and energy-saving measures	Capture more business opportunities through development, demonstration, and real-world implementation of new technologies, support a circular economy, and increase opportunities for energy-saving and streamlining
	Market	Decreased demand for fossil fuels and conventional plants, energy supply crunch caused by emerging geoeconomic risks, fossil fuel price volatility in transitions, impacts on supply chains	Increase opportunities to win orders for non-conventional plants through renewable energy, new technologies, and the like, diversify risk across multiple countries/regions, capitalize on lower fossil fuel prices in the medium and long term, etc.
	Reputation	Negative impact of damaged reputation among customers/partners/markets due to insufficient climate change initiatives and contributions	Differentiate and increase opportunities by improving our reputation
Physical risks (primarily under 2.6°C scenario)	Acute Chronic	Negative impact of increasingly severe natural disasters (acute (e.g., typhoons, floods) and chronic (e.g., prolonged heat waves, sea level rise)) on construction work, material and equipment procurement and transport, reduced productivity, increased costs for industrial accident countermeasures, etc.	Maintain and expand business through risk response, insurance coverage, contractual safeguards, and similar measures at target sites, diversification of suppliers/arrangement of alternative suppliers, business continuity plans, etc.

Carbon neutrality

TOYO is taking steps to achieve the following goals to reduce GHG emissions.

Scope 1 & 2*1 *2

- Achieve net zero emissions by 2050
- 30% reduction in emissions by 2030 compared to 2021 (based on GHG emissions intensity per employee)

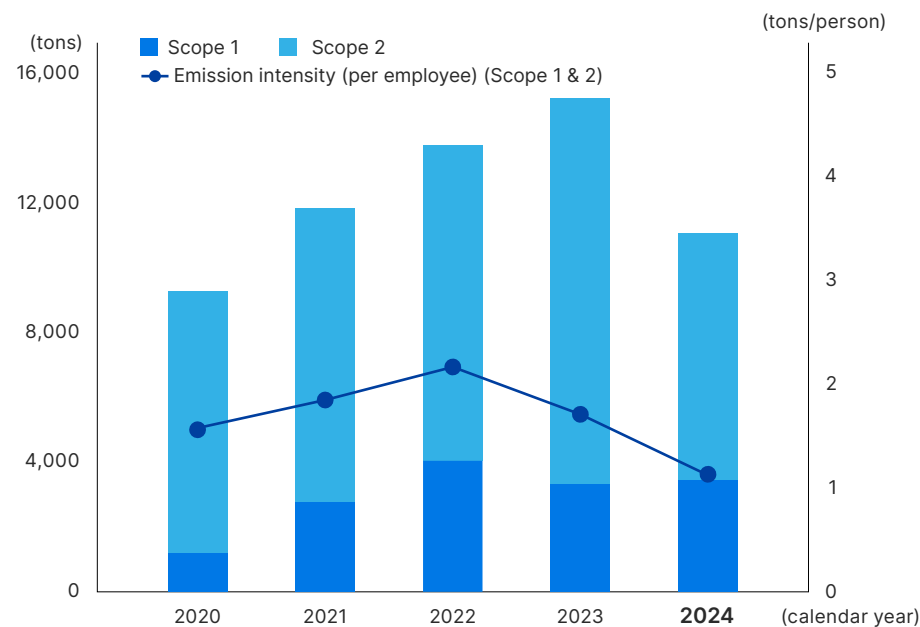
Scope 3

- Contribute to reducing GHG emissions by cooperating with stakeholders and providing technologies, products, and solutions

*1: Emissions are calculated with equity ratio taken into account for equity method affiliates, including for the base year of 2021

*2: We have obtained third-party certification of emissions in 2024 by SOCOTEC Certification Japan

GHG emissions for TOYO Group overall (Scope 1 & 2)



Scope 3 emissions (Categories 1–7) in 2024: 589,987 tons

Examples of specific initiatives

- Carbon-free fuels (ammonia, hydrogen fuel, decarbonization of fuel for power generation, synthetic fuel (e-fuel/SAF))
- Green petrochemicals and CCU (g-Methanol™, green/blue ammonia, CO₂-derived petrochemical raw materials/fuel, heating furnace fuel conversion/electrification)
- Renewable energy-based power generation, geothermal power generation
- Energy saving and resource utilization (HERO/*SUPERHIDIC*™)
- Renewable/circular (waste plastic recycling, urban mines/biomining)

Illustration of completed g-Methanol™ plant



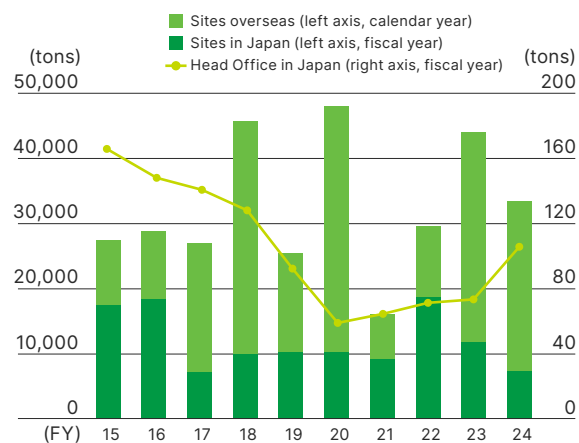
Initiatives for Environmental Preservation and Impact Reduction

○ Waste, recycling, etc.

We rigorously separate waste, properly treat and dispose of hazardous substances, and manage contaminants at domestic and overseas construction sites and at our Head Office in Japan. Since obtaining ISO14001 certification in 2004, we have maintained a record of zero environmental accidents. We also make efforts to limit waste generation at construction sites in Japan, and maintain a recycling rate of 91%. In 2024, we signed a joint development agreement with SCG Chemicals of Thailand to commercialize a petrochemical technology for recycling waste plastic into petrochemical feedstocks. This technology converts used mixed waste plastic into oil through pyrolysis so that it can be reused as a raw material for plastic products, contributing to the realization of a circular economy. The demonstration plant in Thailand is scheduled to begin operating in 2025 with the aim of reducing environmental impact and effectively using resources.



Waste generated at sites in Japan/overseas and at the Head Office in Japan, 2015–2024 (10 years)



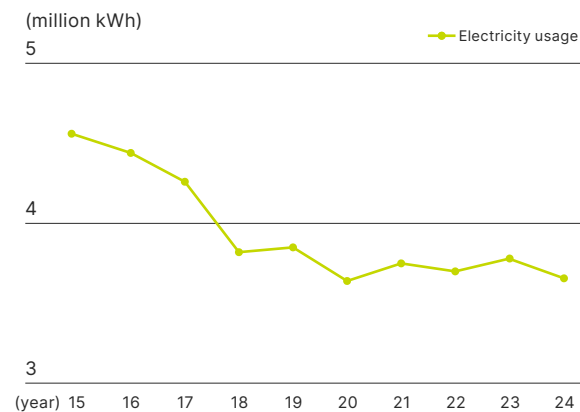
○ Energy saving and renewable energy

We are taking steps to reduce our environmental impact by conserving energy and using renewable energy. In daily operations, we promote energy-saving actions such as turning off lights during breaks and opening blinds to take advantage of natural light, and in 2024, we switched to energy derived from renewable sources for 100% of the electricity consumed at our Head Office. Since relocating to our new office, we have improved energy efficiency by reusing heat from facilities, proactively introduced renewable energy at our new Technology Research Center, and made other efforts to strengthen environmentally friendly initiatives throughout the Group.



Toyo Engineering Technology Research Center (T-Labo)

Electricity usage at Head Office, 2015–2024 (10 years)



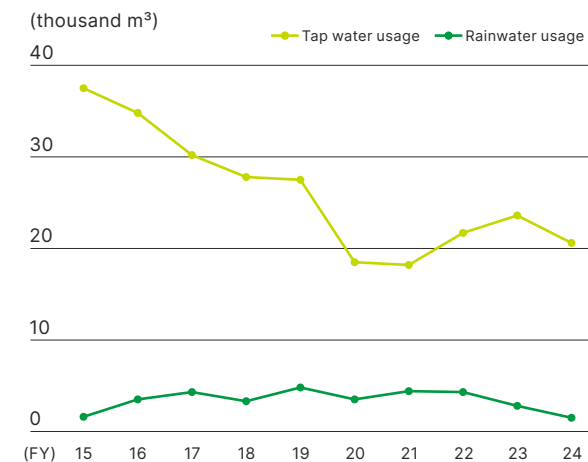
Note: Electricity usage in 2024 includes 2.2 million kWh derived from renewable energy, reducing emissions by 1,129 ton-CO₂.

○ Water resources and biodiversity

Effectively using water resources and considering ecosystems are important tasks, and we are promoting various initiatives accordingly. We are taking steps to reuse rainwater at our Head Office, and are also considering and promoting the reuse of water for different purposes in the new office. We also formulate plans based on environmental impact assessments (EIA) in each project, and have even established nature conservation areas in past projects to protect the habitats of rare wild animals and plants. In the geothermal field, we are proactively working on considerations for maintaining water resources and biodiversity by introducing closed-loop systems for circulating geothermal heat.



Tap water and rainwater usage, 2015–2024 (10 years)



SOCIAL

Materiality (Important Management Issues)

Enrich People's Lives



○ Constructing plants to help people live richer lives

The diverse range of plants we have constructed help people live richer lives in terms of supplying food and energy and providing essential foundation for daily living. Through these projects, we are working to strengthen industrial infrastructure, transfer technology, and develop human resources in countries around the world.



Food supply

Since our founding in 1961, we have owned and continuously developed technology for urea, an essential fertilizer for increasing food production. Ammonia, the raw material for urea, is also used as a fertilizer. We have completed projects for 100 or more urea plants and 80 or more ammonia plants, contributing to increasing food production to feed the world's growing population.

P. 53



Energy supply

We have contributed to the supply of energy sources and electricity by constructing various plants for oil refining, gas treatment, and power generation (gas-fired, solar, biomass, and geothermal). We introduce the latest technology and leverage our stockpile of technical expertise and knowledge to build highly efficient plants.

P. 54



Foundation for daily living

We have contributed to the supply of raw materials for various products and necessities people need in their daily lives by constructing petrochemical, chemical, and other types of plants. We have also harnessed our knowledge of chemical plants to build pharmaceutical plants. To achieve carbon neutrality, we accommodate our customers' sophisticated requirements, for example, switching from conventional oil and gas to bio-derived raw materials and constructing more advanced, value-added chemical plants.

P. 55



Food supply

Spotlight **01**

Urea licensing for Angola's first fertilizer plant

Under this project, we license our proprietary urea technology to Amufert S.A., a joint fertilizer company in the Republic of Angola, for constructing the world's largest urea granulation plant (4,000 tons/day) in the Soyo region of the country's Zaire province. It will be the first urea fertilizer plant constructed in Angola, a country where natural gas production is increasing. The project will contribute to food security by enabling Angola to satisfy 100% of its urea fertilizer needs through domestic production—whereas it previously imported 100%—and export urea

fertilizer to other countries in the region. It will also help enhance the added value of natural gas resources, improve the balance of trade as a result of exports to neighboring countries, create jobs, and diversify Angolan industry.

Under the project, TOYO is the urea synthesis and granulation licensor providing licensing, basic design, partial equipment procurement, and technical services.

Society x Customer needs

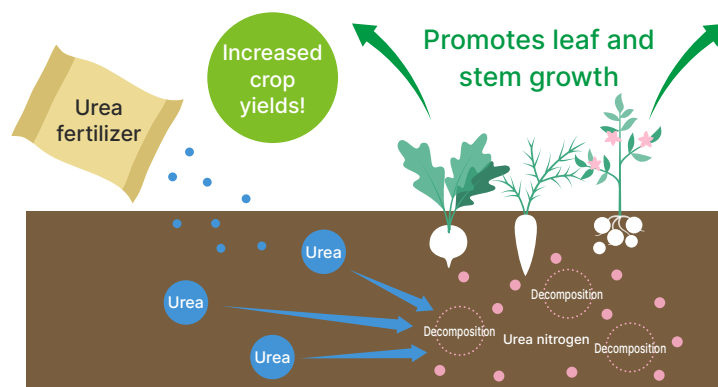
- In pursuit of food security, Angola needs to shift from importing urea fertilizer to producing it domestically
- Angolan industry is dependent on oil and natural gas, and price fluctuations have a substantial impact on its economy; the country needs stable economic growth through industrial diversification
- Unemployment rate is high; new industries are needed to create jobs

TOYO's value proposition

- Shift to domestic production of urea fertilizer by constructing Angola's first urea plant
→ Contribute to food security and industrial diversification
- Apply the latest synthesis and granulation technologies to new plant construction
→ Optimize plant construction and operating conditions at low cost
- Create business for new plant construction and operation, provide operational support
→ Contribute to job creation

Q: What is urea fertilizer?

A: Plants need nitrogen to grow. Nitrogen is a great promoter of leaf and stem growth, and helps maintain plant health. Urea contains ample nitrogen, and is used as a fertilizer to increase crop yields. As the world's population continues to grow, nitrogen fertilizers play an essential role in increasing food production.



Contract signing ceremony with Amufert





Energy supply

Spotlight **02**

Geothermal power plant construction projects in Indonesia

Geothermal heat is a renewable energy source that does not depend on the weather and is expected to be a stable baseload power source. Our Indonesian subsidiary, IKPT, has constructed six geothermal power plants to date. Additionally, it was awarded three new projects in fiscal 2024. The TOYO Group is also working to realize a Geothermal Carbon Neutral Park Concept for introducing new technologies to comprehensively develop geothermal fields.

Society

X

Customer needs

- Indonesia has set a goal to achieve net zero emissions (NZE) by 2060.
- The Indonesian government aims to increase installed geothermal capacity by about 150%, from 2.3 GW in 2020 to 5.7 GW by 2030.

TOYO's value proposition

- Achieve optimal quality, cost, and schedule for the engineering, procurement, and construction of geothermal power plants
→ Optimize and achieve higher efficiency in geothermal power plant construction and operating conditions
- Increase renewable electricity by introducing new technologies to achieve net zero emissions
→ Contribute to environmental preservation (climate change, maintaining water resources and ecosystems)
- Achieve an electricity supply that meets demand driven by population and economic growth
→ Contribute to stable energy security by effectively using heat resources in Indonesia

Geothermal power plants constructed by TOYO in Indonesia



PT Supreme Energy
Muara Laboh,
Muara Laboh-2
(under construction)



PT Pertamina
Geothermal Energy,
Lumut Balai-1



PT Pertamina Geothermal
Energy,
Ulubelu



PT Unocal Geothermal
Indonesia,
Salak-4, 5 & 6

Star Energy Geothermal
(Wayang Windu) Limited,
Wayang Windu-3
(under construction)



PT Geo Dipa Energi (Persero),
Patuha-2 (under construction)



PT Geo Dipa Energi, Dieng

PT Medco Cahaya Geothermal,
Blawan Ijen



PT Pertamina Geothermal
Energy,
Lahendong





Foundation for daily living

Spotlight **03**

Catalyst recycling facility construction project in Malaysia

Under this project, TAIYO KOKO MALAYSIA SDN. BHD.* will construct a spent catalyst recycling facility in Kuantan, Malaysia. The facility will efficiently recover and recycle valuable metals from catalysts used in oil refining and other industrial processes.

Minimizing waste in this way substantially reduces the environmental impact of spent catalyst treatment.

* A wholly owned subsidiary of TAIYO KOKO CO., LTD.

Society x Customer needs

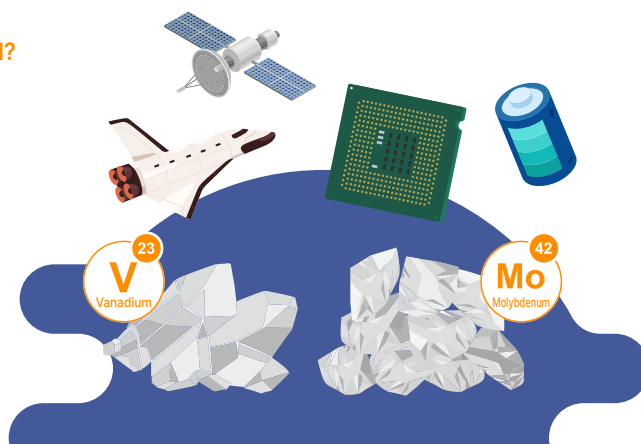
- Large amounts of spent catalysts from a nearby major oil refinery and petrochemical complex are causing a substantial environmental impact
- Treatment companies accept and treat spent catalysts at high cost without recovering the constituent valuable metals
- Valuable metals (especially vanadium) are often produced by countries with high geopolitical risks

TOYO's value proposition

- Efficiently recover spent catalysts destined for disposal and recycle the constituent valuable metals (molybdenum and vanadium)
→ Substantially reduce environmental impact and recycle valuable metals to ensure stable supply
- Diversify countries supplying valuable metals currently sourced from a few specific countries
→ Strengthen the supply chain to stabilize supply with reduced geopolitical risks
- Deploy customer technologies developed in Japan in compliance with local laws and standards
→ Help customers expand overseas with greater certainty

Q: How are valuable metals reused?

A: Chemical compounds made with valuable metals (molybdenum and vanadium) are used as catalysts in oil refining and chemical manufacturing processes. They are also used as additives in steel to improve its strength and resistance to wear and corrosion. Additionally, they are important metallic elements in the steel and chemical industries, where they are used to make aerospace materials, in electronic component and semiconductor manufacturing, and to make electrolytes in redox flow batteries.



Groundbreaking ceremony held in December 2024

Social Contribution Activities

TOYO proactively promotes social contribution activities in three areas—community, environment, and education—while utilizing its technology and knowledge with the aim of realizing a sustainable society.



India

Toyo-India's social contributions bring happiness to rural India

In fiscal 2024, Toyo-India conducted CSR activities in rural India in four areas: supporting women's entrepreneurship, improving access to medical care, improving the educational environment, and environmental preservation. In Maharashtra, the company supports local independence through entrepreneurship training for women and infrastructure development. The company also provided nutritional support, ambulances, and other forms of medical assistance to hospitals and tuberculosis patients in Mumbai. As for education, the company helped improve the learning environment by establishing a STEM education center, renovating classrooms, and installing drinking water facilities. The company also engaged in environmental preservation by planting trees in the Aurangabad district, helping to realize a sustainable local community.



Free medical examinations



Tree planting



Japan

Career education support to nurture a community's future

In fiscal 2024, we participated in "Hakken Tanken," a career education support program run by the Chiba prefectural government. Students of public junior high schools receive an educational pamphlet informing them of the job landscape a decade into the future. We submitted a description of TOYO and interviews with our employees for inclusion in the pamphlet to convey the appeal of engineering to the students. We also held outreach classes in Chiba, where employees explained their jobs and what motivates them at work. As a company rooted in local communities, we will continue to provide opportunities for children to learn more and enjoy more options in the future.



A Hakken Tanken class



Brazil

Contributing to local communities as an integral part of our corporate culture: Acquiring SA8000 certification, an international standard for CSR

We engage in ongoing activities targeting local issues, for example, providing educational support for children and youths and vocational training for women and local residents. Our employees also consistently volunteer by distributing food and donating winter clothing to people in need, fostering a corporate culture of contributing to local communities. In fiscal 2024, we acquired certification for SA8000, an international standard for CSR, and will continue to fulfill our corporate social responsibility.



International Young Workers Day 2025



Japan

UNICEF fundraising by the TOYO Future Advancement Department

As a part of our everyday social contribution activities, we engage in ongoing fundraising of foreign coins and paper money. We are expanding the reach of our support by effectively utilizing the large amount of foreign currency we collect, specifically from our many business trips to foreign countries. On the latest occasion, we donated a total of 30 kg of coins and paper money worth roughly 170,000 yen from 31 different countries to the Japan Committee for UNICEF. The donations are used to maintain children's health in the countries where UNICEF is active. We intend to continue contributing to the realization of a sustainable society while focusing on initiatives we can achieve with everyday efforts.



Japan Committee for UNICEF
Director Endo
and TOYO President Hosoi
at UNICEF House



SOCIAL

Materiality (Important Management Issues)

People of Diverse Backgrounds Engage in Active, Meaningful Work



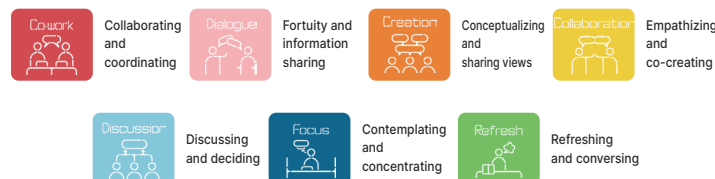
Basic approach

In December 2024, we relocated to our new office. By incorporating the concept of activity-based working (ABW), we have created an environment where employees can direct their own actions at work.

New office concept

Our goal was to create an environment that fosters what we refer to as “autonomous individuals.” We have created an environment where autonomous human resources can design optimal work styles for themselves to create results. Hopefully, our new office will be a place that encourages each employee to grow and explore possibilities.

Seven activities at the new office



Installing new office ambassadors

These ambassadors are a cross-organizational team that formulates, implements, and institutionalizes measures to promote ABW on a floor-by-floor basis. Floor-by-floor initiatives are shared at meetings to achieve better work styles.

All employees participate in formulating Work Style Guidelines

We want all employees to view ABW as relevant to them and have a positive attitude as they tackle the challenges associated with it. With this in mind, we introduced a draft of Work Style Guidelines throughout the Company, and settled on the final version after numerous discussions.

MESSAGE

Harnessing the power of new work styles to drive innovation

Our new office should be a place where a group of professionals with a strong sense of individuality can come together and integrate their knowledge by demonstrating their intellectual strengths, complementing each other, and learning from each other. We hope that new innovations emerge from fortuitous communication between diverse individuals.

Norihiro Takahashi,
Director,
New Office Division
(as of March 2025)



Promotion based on our new office

- Human Resources Development [P. 58](#)
- Recruiting Initiatives [P. 59](#)
- Human Resources Development Initiatives [P. 60](#)
- Health and Productivity Management/Work-life Balance [P. 61](#)
- Inclusion [P. 62](#)
- Human rights initiatives [P. 63](#)

Human Resources Development

Basic approach

Our most important assets as a Group are our employees—their individual capabilities directly relate to our growth and competitiveness. To draw out even more value from our employees as human resources—a vital management resource—we established the Human Resources Development Committee as a venue for holding discussions based on a Company-wide, medium- to long-term perspective when drafting personnel-related measures. Our goal is to create a system under which we combine management strategy and human resource strategy to drive both organizational and personal growth.



Human Resources Development Committee

A committee established in fiscal 2023 to consider and discuss personnel-related measures and accomplish the following three tasks:

- 1 Draw out value from our employees as human resources
- 2 Enhance engagement
- 3 Strengthen and revitalize organizational capabilities



Committee initiatives

Maximizing the value of human resources by connecting HR and people on the front lines

The Human Resources Development Committee (established in fiscal 2023) is working with people on the front lines and the Human Capital Development Department to use the results of engagement surveys to consider measures to improve the satisfaction and promote the active participation of employees. Their discussions reflect the views of people on the front lines to optimize job assignments and strengthen organizational capabilities. We will continue to support the growth of the organization in terms of both the front lines and human resource strategy by leveraging the expertise of each employee as we develop people who can create new value that spans divisions.

Ryuichiro Takei, General Manager, Supply Chain Management Department, Procurement Division



Investment in human resources development

To turn out professionals capable of directing their own actions at work, we will devote energy to swiftly onboarding young employees and strengthening divisional management capabilities, and diverting these gains toward raising overall organizational capabilities. In fiscal 2024, we restructured our training system for the next Medium-term Management Plan and invested more into human resources development to accelerate our momentum in harnessing individuals’ strengths to reinforce organizational capabilities.

Investment in human resources development and training hours

2023	2024	2025 (forecast)
¥83.6 million	¥92.5 million	¥214.62 million
122,130 hours	108,660 hours	115,600 hours

Note: Human Capital Development Department planning training at Toyo-Japan

Spotlight

Initiatives to enhance engagement

The Human Resources Development Committee discusses ways to improve engagement in addition to retention measures and swift development, and also considers introducing career development measures that enable employees to discover how their careers overlap with the Company’s progress. We have also introduced measures aimed at creating human resources capable of proactively pioneering new business with an eye toward the future.

We will continue to promote further support for our employees so that we can be an organization that is always learning.

Recruiting Initiatives

○ Basic approach and recruiting strategy

We aim to secure and ensure active participation by diverse human resources to achieve sustainable growth and value creation. When hiring new graduates and mid-career professionals, we combine referral recruiting, alumni recruiting, and other methods to help us acquire human resources who are both ready to contribute immediately and have potential for the future. We view their experience and diverse backgrounds as assets and promote further value creation by creating environments where they can demonstrate their abilities immediately after joining the Company.



Our new employees in April 2025



New graduate recruiting

Amid an intensifying and challenging environment for recruiting new graduates, we are striving to promote the appeals of the Company through interviews with employees while enhancing internship content and providing follow-up in consideration of students' personal circumstances. In April 2025, 59 new employees (48 in technical positions, 11 in administrative positions) joined the Company.



Mid-career recruiting

Amid an ever more challenging environment for recruiting mid-career professionals, we are steadily recruiting by promoting the appeals of the Company using owned media, utilizing direct recruiting, and building relationships with recruiting agencies. In fiscal 2024, 29 employees joined the Company through mid-career recruitment.

Referral recruiting



We introduced a referral recruiting system in fiscal 2021 as a means of recruiting without having to compete with other companies. By operating the system, holding in-house information sessions, and engaging in other activities over the past four years, the system has gradually become an integral resource in the Company's recruiting. In fiscal 2024, eight employees joined the Company via the referral system.

Recruiting foreign nationals



As a global company, we have created environments where employees who do not speak Japanese can fulfill their duties in English, both technically and interpersonally. In fiscal 2024, 14 foreign nationals joined the Company (including new graduates hired in April 2025).

Alumni recruiting



Although we have rehired some former employees in the past, in March 2025, we launched the TOYO Alumni network to allow the Company and former employees to connect with the hope that people who have changed jobs or been forced to quit due to family circumstances will choose TOYO as a place to gain more experience and improve their skills.

Human Resources Development Initiatives

○ Basic approach and policy

We aim to be an organization that is always learning, and a group of professionals that our customers can always rely on. Accordingly, we help each employee to form core expertise and maintain a future career-oriented employee education system to develop human resources who constantly learn new things and flexibly expand their range of activity.

Spotlight

DX seminars

We aim to be an organization where all employees are capable of using data and digital tools effectively. Toward that end, we hold practical seminars to teach all Group employees how to use various tools. For example, 230 employees have already attended seminars on Alteryx™ data analysis, preparation, and utilization tools, and we have a steadily increasing list of licensed users.



360-degree feedback

A type of feedback that differs from typical personnel evaluations in that employees receive multi-faceted, objective feedback on their everyday conduct from supervisors, colleagues, and subordinates (juniors) to help them strive to further enhance their strengths while improving their conduct with regard to their weaknesses. Employees gain deeper self-understanding from this objective feedback, accelerating the development of the leaders and managers of the next generation and cementing the feedback culture to foster open work environments.



Generative AI-based training

We provided hands-on training on how to use generative AI with the aim of improving employee skills and operational efficiency. Participants were given an overview of generative AI before learning how to operate the tool and write prompts. Group work during the training inspired participants to exchange information on operational improvements even after the training.

OJT and practical training at overseas Group companies

Our OJT programs cultivate real-world skills through training focused on the practical. The purpose of OJT at these locations is for our employees to study design under employees who work outside Japan so that they learn the secrets of how to cooperate in the context of different cultures. This training is based on the 3G principle* and allows participants to learn about products, experience what is known as the “contractor’s spirit,” and broaden their perspectives. Through continuous measurement and improvement of effectiveness, we help employees grow and enhance our competitiveness as a company.

* 3G principle: A collective term for Gemba (actual place), Gembutsu (actual things), and Genjitsu (actual situation)

Other initiatives

- Career training
- Support for improving language ability, global business acumen, and core skills (We fully subsidize fees for the TOEIC® examination—a requirement for promotion—for employees who reach a new personal high score on the TOEIC® IP test that we administer in-house four times a year)
- OJT & advisor system
- Qualification subsidies and awards program
- Collaboration with people responsible for human resources development (Following training policies derived from Company-wide policies and incorporated into divisions, managers in charge of human resources development draft and carry out the training plans required by divisions, and are also responsible for subsequent follow-up to increase training effectiveness)

Health and Productivity Management

Our employees are the source of our competitiveness. Therefore, maintaining and promoting their health is essential for the sustainable growth of the Company. We view employee health as an important asset and aim to improve productivity and competitiveness through health and productivity management that actively promotes employee health. Key initiatives include medical examinations, mental health care, promoting exercise, dietary improvements, and holding seminars.

Spotlight

Health and productivity management promotion measures

Updating our Health Office for the new office

We updated our Health Office as part of the relocation to our new office. The large, wide windows let in plenty of sunlight, creating a bright space—the perfect background for a change of pace. We have also installed comfortable new beds to provide a more relaxing environment for our employees. As a result of these efforts, they are enjoying a healthier, more comfortable working environment.



Our Health Office

Initiatives to support mental health

Industrial physicians

Industrial physicians provide systematic, effective health care through medical examinations, work environment improvements, mental health care, and health education, thereby strengthening our health and productivity management.

Stress checks

We improve work environments and enhance mental health by conducting stress checks to detect and deal with problems involving stress and mental health as soon as possible.

Work-life Balance

To help our employees achieve work-life balance, we have a flexible scheduling program available for a variety of purposes, as well as systems for shorter working hours, paid leave, and extended leave to care for family members. We established MF leave* in fiscal 2024 after consulting with the labor union. More and more male employees are taking childcare leave each year, and our programs and systems are helping both our employees and their families achieve work-life balance.

* MF leave: A type of leave available to both male (M) and female (F) employees for menstrual periods and reducing menstrual-associated disorders (M), seeking and undergoing testing for fertility treatment (F), and seeking treatment for menopausal disorders (M)

Comments from employees who have used our leave systems

MF leave: Less anxiety about both treatment and work

I am using the leave program to undergo fertility treatment. Although hospital visits and other aspects of treatment take a toll in terms of both time and mental energy, I feel like everyone at work understands, and their consideration has given me peace of mind and allowed me to focus on the treatment with a positive attitude. I am less anxious about taking time off work for treatment, and my mind is more relaxed. This system is great to have if you are dealing with similar problems.

Kazuma Misaki,
Human Capital Development Department,
Corporate Administration Division



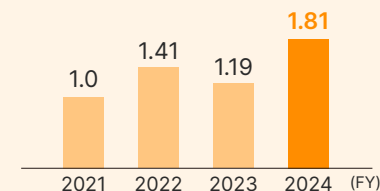
Childcare leave: Rejuvenated for work after one year away

My work in the Construction Division requires me to take many long business trips to construction sites, so I made a big decision to take childcare leave for a full year. The time I spent with my family was very valuable. It was also a good opportunity for me to change my viewpoint and outlook, as I had time to study and read books about my interests and consider new approaches to work when I returned.

Shun Kato,
Construction Planning Department,
Construction Division



Percentage of childcare leave taken by men



Note: Figures indexed to fiscal 2021

Inclusion

At TOYO, we aim to create flexible work styles and organizations that transcend gender and race and respect people's backgrounds and values, and our strength lies in accepting the customs and work styles of diverse human resources and utilizing everyone's unique characteristics to promote our business. Our wonderful corporate culture is rooted in this strength, but we must not be complacent if we want to keep up with the changing times and ensure it remains effective. Instead, we must constantly question—and sometimes reform—our culture so that it continues to evolve.

○ The TOYO Inclusion Declaration

Employees of TOYO are an increasingly diverse mixture of new graduate recruits, mid-career recruits, people working past the conventional retirement age, foreign nationals, and people caring for family members outside of work. The TOYO Inclusion Declaration states that we reject a uniform work style premised on homogeneous employees, and that our employees will maximize their individual value amid work styles and environments aligned with diversity, mutually acknowledge the contributions of individuals to the organization, and, as a group, connect these actions to enhancing the value of the organization.

The TOYO Inclusion Declaration

- When** Now, as our organizational members advance in diversity,
- Who** let all employees of TOYO
- How** accept and respect each other's individuality, gender, age, country, and cultural differences as they are, and,
- Where** within a flexible environment allowing people to work their own way,
- What** let all employees enhance their own value to the maximum and contribute to our transformation toward a competitive TOYO!

Established on September 19, 2018

Spotlight

Initiatives to support employees at various life stages (creating workplaces where people can talk about nursing care)

Moving beyond programs to foster a supportive corporate culture

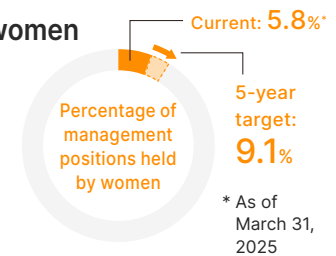
For our employees to be able to balance work and nursing care with peace of mind, we are going beyond establishing programs, and devoting energy to fostering a supportive corporate culture. When the work environment is such that employees do not feel overburdened with nursing care and feel free to talk about it, they can take full advantage of programs and achieve balance between work and nursing care.

Nursing Care Café

Our Nursing Care Café was launched by the TOYO Future Advancement Department, which is in charge of efforts initiated by employees. The café is open twice a month during lunchtime and regularly draws 10 to 20 people. It has taken root as a venue for employees to casually discuss and share their concerns about nursing care.

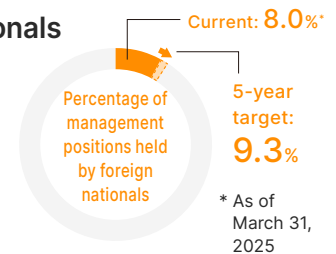
○ Active participation by women

The number of women in career-track positions—candidates for future management positions—has steadily increased over the years. Our policy is to actively promote ambitious women who demonstrate leadership to management positions.



○ Recruiting foreign nationals

To further strengthen our global business operations, we are promoting capable foreign nationals through new graduate recruiting, mid-career recruiting, and promoting temporary employees to regular employees.



Active participation by post-retirement employees

Passing overseas project experience to the next generation

During my career, I worked in the Overseas Projects Division, where we constructed petrochemical, infrastructure, and a wide variety of other plants in many countries. Since reaching the conventional retirement age, I have used my experience to review and monitor projects in Japan and overseas in the Project Management Division, helping projects succeed and stabilizing income and expenditures, and working on a daily basis to pass my experience to younger employees. I am grateful that my everyday duties are so motivating, and that I still feel like I can contribute to the company.



Takato Miyazaki, Project Management Division

Human Rights Initiatives

Basic approach

TOYO recognizes that respect for the human rights of all people affected by our Group's global business activities is the foundation for enriching people's lives and achieving a society where people of diverse backgrounds engage in active, meaningful work—two of our materialities. Under this recognition, we have established our Basic Policy on Human Rights under TOYO's Code of Conduct and our Sustainability Basic Policy to further advance human rights initiatives and fulfill our relevant duties.

Under our Basic Policy on Human Rights, TOYO respects human rights as defined in the International Bill of Human Rights*1 and the Declaration on Fundamental Principles and Rights at Work of the International Labor Organization (ILO)*2, endorses the 10 Principles of the United Nations Global Compact*3, and promotes human rights initiatives in accordance with the Guiding Principles on Business and Human Rights.

*1 The International Bill of Human Rights is a general term for the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights, and other covenants adopted by the United Nations.

*2 The core labor standards consist of 10 conventions in five areas: freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced or compulsory labor; the effective abolition of child labor; the elimination of discrimination in respect of employment and occupation; and a safe and healthy working environment.

*3 The United Nations Global Compact is a global framework by which the United Nations and private-sector companies and organizations collaborate to achieve sustainable growth. It consists of 10 principles to which companies should adhere in the four areas of human rights, labor, the environment, and anti-corruption.

Structure for promoting respect for human rights

To steadily advance initiatives aimed at respect for human rights, TOYO has established a Human Rights Subcommittee under the Sustainability Committee, a committee serving as an advisory board to the Executive Committee and chaired by the Chief Compliance Officer. In cooperation with Group companies, we engage in human rights initiatives under a global structure.

Relief and dialogues related to human rights risks

To address all human rights risks in TOYO's global business activities, we have set up complaint handling desks within TOYO Group companies. We work to suitably and sincerely address reports received, and, should it come to light that we have caused, encouraged, or had direct connection to adverse effects on human rights, we endeavor to rectify the situation and provide relief through appropriate procedures. We also draw on the knowledge of outside experts on human rights risks and engage in sincere dialogues and discussions with any adversely affected parties as well as other relevant stakeholders.

Initiatives to achieve respect for human rights in the supply chain

We apply TOYO's Basic Policy on Human Rights to all Group executives and employees and work to ensure support for the policy by all suppliers, partner companies, and other business partners in our supply chain with whom we cooperate in addressing human rights.

Toward this end, TOYO has established a Basic Policy on Business Transactions and seeks the understanding of all business partners in respecting human rights while complying with international norms and laws and regulations, eliminating all forms of discrimination, preparing safe and comfortable working environments, and giving consideration to the environment. Together with these partners, we will work to enrich people's lives and achieve a society where people of diverse backgrounds engage in active, meaningful work.

Human rights due diligence

To identify, evaluate, prevent, and mitigate any negative impacts on human rights in connection with our business activities, TOYO engages in human rights due diligence. We have set the following five human rights issues as particular priorities, and will continue and strengthen our actions to address them.

In fiscal 2024, we administered a questionnaire to suppliers and others as part of the human rights due diligence process.

In fiscal 2025, we will use the results of the questionnaire to promote human rights initiatives in our supply chain.

High-priority human rights issues	Current initiatives
1 Occupational health and safety	Fostering a safe culture Developing and following safety standards Maintaining and promoting employee health
2 Harassment and discrimination	Regularly implementing harassment training Establishing in-house consultation desks Ensuring the diversity of human resources (women, people with disabilities, foreign nationals, mid-career hires)
3 Working environment (working hours and wages)	Properly managing working hours Enhancing work-life balance (remote work system, promoting the taking of childcare and nursing care leave, etc.)
4 Forced labor and child labor	Requiring that TOYO's Code of Conduct is followed in individual contracts for procurement and construction
5 Supplier management	Stipulating compliance with TOYO's Code of Conduct in individual procurement and construction contracts, and prevention of bribery Requesting cooperation with 1 to 4 above, based on our Basic Policy on Business Transactions

Note: In formulating the above five items, we identified priority human rights issues to be addressed by TOYO based on their severity and possibility of occurrence. We did so with reference to international norms such as the United Nations Global Compact (UNGC) Principles and the five Fundamental Principles and Rights at Work of the International Labor Organization (ILO), and to industry-specific human rights risks (international indicators and tools such as UNEP FI, examples from other companies in our industry, etc.)

GOVERNANCE

Materialities (Important Management Issues)

Establish an Organization with Integrity and Discipline



○ Basic approach

With “Engineering for Sustainable Growth of the Global Community” as its mission, TOYO aims to elevate its sustainability as a company along with its medium- and long-term corporate value and shareholder value. We will also work on enhancing our corporate governance, the foundation for realizing those aims. Specifically, we will make efforts to establish and operate a corporate governance structure, perform appropriate risk-taking and management, enforce compliance, and engage in active disclosure of information and dialogues with stakeholders.

TOYO as seen by an Outside Director

Solid steps toward sustainable growth through execution capacity and organizational infrastructure

In my view, although there are some variations in status among the items of TOYO's current Medium-term Management Plan, the plan is generally making steady progress in the right direction. I expect further progress toward results in fiscal 2025, the final year of the plan.

I also believe that one of the driving forces behind progress to date has been stronger governance. The proof lies in TOYO's ability to secure a stable profit structure and resume dividend payments through faithful, consistent implementation of measures and reforms year after year in a drastically changing market and circumstances.

Most recently, the Company established the Business Portfolio Committee in fiscal 2023 to allocate in-house resources and coordinate business areas, and the Project Management Division was established in fiscal 2025 to strengthen company-wide risk management. Although these organizations were established primarily to stay abreast of the rapidly changing business environment, each is firmly rooted in a strong awareness in the need for stronger governance, and we believe they provide the Company with the tools to implement it effectively.

Meanwhile, the new Head Office in Kaihin Makuhari, which opened in January, features a vibrant color scheme that boldly announces TOYO's presence and clever design, interior, and furniture selection that elicits smiles, and the Company's talented employees are literally spreading their wings in this invigorating new environment. I hope all employees at TOYO's domestic and international locations will work together as one and flourish with flexibility and strength toward implementing the new Medium-term Management Plan for the next fiscal year and beyond.

Masami Tashiro, Outside Director, appointed in 2015



List of Officers

As of July 1, 2025

View details of
Officers
[Click here!](#)


○ Skill matrix of Directors and Audit & Supervisory Board Members

TOYO engages in business around the world, with countries other than Japan accounting for high percentages of both net sales and total employees. Global corporate management skills are vital for TOYO in achieving its mission of providing “Engineering for Sustainable Growth of the Global Community.” The Company’s knowledge and experience in project management are crucial for managing and supervising its major business and management activities, which involve the simultaneous implementation of a broad variety of projects. Knowledge of technology, research and development, and other industries is also vital for developing and integrating new technologies and component technologies and implementing them in the real world in the form of production facilities—plants—in various business fields. Accordingly, TOYO has created a skill matrix covering basic items required in its corporate management, including sustainability, accounting/finance, HR/labor, legal and regulatory, sales and marketing, and industry knowledge, as well as global corporate management, project management, technology/R&D, and knowledge of other industries.

	 Haruo Nagamatsu Chairman	 Eiji Hosoi Representative Director President & CEO	 Noriyoshi Torigoe Representative Director Executive Vice President CCO	 Yasutaka Suzuki Director Senior Executive Officer CSO	 Yasuo Miyokawa Director Senior Executive Officer CFO	 Masami Tashiro Outside Director (Independent Officer)	 Reijiro Yamamoto Outside Director	 Tatsuya Terazawa Outside Director (Independent Officer)	 Sayoko Miyairi Outside Director (Independent Officer)	 Toshihiko Nemura Audit & Supervisory Board Member	 Hiroshi Yoshida Audit & Supervisory Board Member	 Hideki Matsuo Outside Audit & Supervisory Board Member (Independent Officer)	 Takako Miyoshi Outside Audit & Supervisory Board Member (Independent Officer)
Years in office	8 years	2 years	4 years, 11 months	Newly appointed	Newly appointed	10 years	6 years, 4 months	4 years, 11 months	4 years, 11 months	3 years	1 year	3 years	2 years
Number of Board of Directors meetings attended	13 of 15 (86.7%)	15 of 15 (100%)	15 of 15 (100%)	—	—	15 of 15 (100%)	15 of 15 (100%)	15 of 15 (100%)	15 of 15 (100%)	15 of 15 (100%)	12 of 12 (100%)	15 of 15 (100%)	15 of 15 (100%)
Number of Audit & Supervisory Board meetings attended (Audit & Supervisory Board Members only)										19 of 19 (100%)	13 of 13 (100%)	19 of 19 (100%)	19 of 19 (100%)
Sustainability	●	●	●	●	●	●	●	●	●	●	●	●	●
Global corporate management	●	●		●		●	●					●	
Accounting/finance			●		●	●	●				●		
HR/labor					●				●				
Legal and regulatory			●					●					●
Project management	●	●								●			
Technology/R&D	●									●		●	
Sales and marketing		●		●									
Industry knowledge	●	●	●	●	●					●	●	●	
Knowledge of other industries			●	●		●	●	●	●			●	●

Note: The table above shows the specialized knowledge and experience held by Directors and Audit & Supervisory Board Members. (Up to five items per person)

Initiatives to Strengthen Governance

○ Appointment of Outside Directors

We appoint Outside Directors who possess superb insight and abundant experience in areas essential to business management—sustainability, accounting/finance, HR/labor, and legal and regulatory—in addition to global corporate management, which is crucial for TOYO as a global company. These individuals are able to take an overview of our entire management and to provide practical and objective opinions and advice from the perspective of diverse stakeholders. In line with the criteria for the independence of outside directors prescribed by the Tokyo Stock Exchange, three of our four Outside Directors are Independent Officers.

Corporate Governance
Guidelines

[Click here!](#)



Strengthening of
governance over time

[Click here!](#)



○ Appointment of Outside Audit & Supervisory Board Members

We appoint Outside Audit & Supervisory Board Members who possess superb insight and extensive experience in various fields. These individuals are able to take a high-level view of our management overall and appropriately audit the adequacy of the execution of duties and work by Directors.

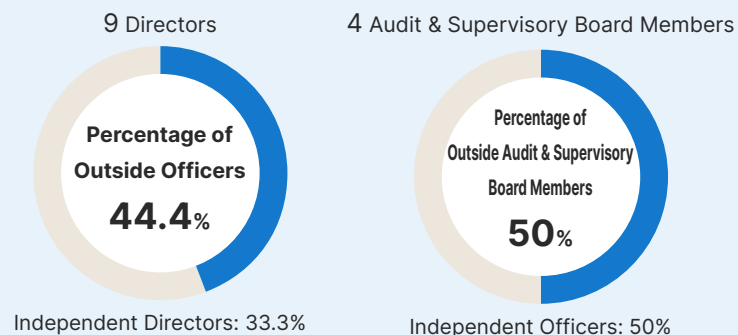
○ Ensuring the diversity of the Board of Directors and the Audit & Supervisory Board

We appointed a female Director in fiscal 2020 and a female Audit & Supervisory Board Member in fiscal 2023. We will continue our efforts to ensure the diversity of the Board of Directors in aspects including gender, nationality, career history, and age.

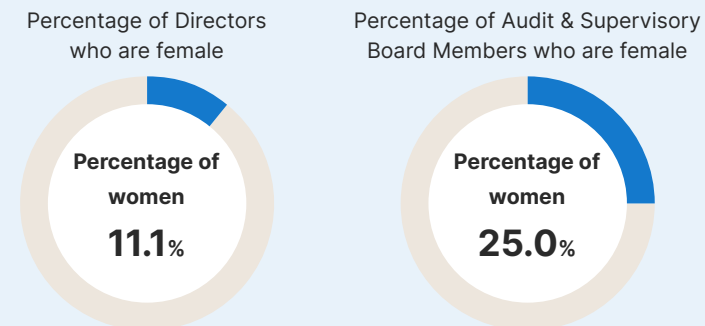
○ Outside Officer system and operation

Our Outside Officers provide opinions from the perspective of external stakeholders, which we believe helps ensure the accountability of our corporate executives and contributes to management transparency. In light of the business content and structure of our Company, we are confident that our current Outside Officer system is effective in ensuring that our corporate governance functions as intended. To ensure that our Outside Officers provide effective supervision of our corporate management, we conduct briefings on agenda items of Board of Directors meetings and regularly schedule events for business divisions to report on the status of operations as ways to enhance the day's discussions.

Percentages of Outside Officers on the Board of Directors/Audit & Supervisory Board



Percentage of Board of Directors/ Audit & Supervisory Board Members who are female

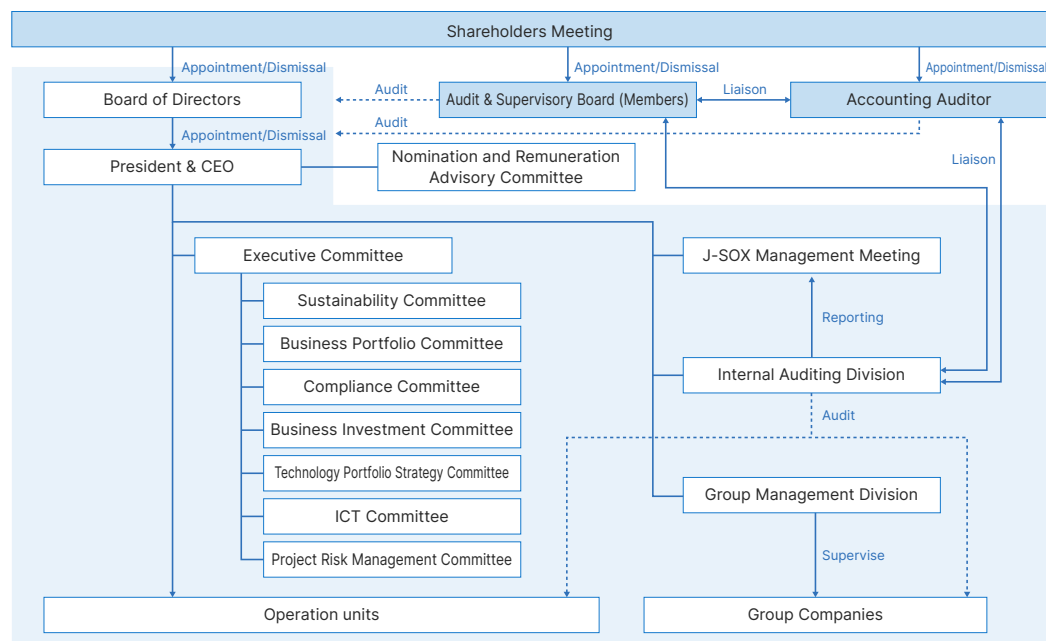


Corporate Governance System

The Board of Directors comprises nine Directors, including four Outside Directors, who deliberate and determine all important matters related to management and to execution of operation, while also monitoring and supervising one another with respect to the execution of duties. We also employ an executive officer system for the purpose of guaranteeing a swift and efficient system of business execution. Executive Officers are appointed by the Board of Directors and execute their delegated duties under the direction of the CEO. The Executive Committee, an advisory body to the President & CEO, consists of Executive Officers with specific roles (Senior Executive Officers or above) and the heads of key divisions. The Executive Committee reports and deliberates on important matters related to the execution of business. The Nomination and Remuneration Advisory Committee, consisting of the President & CEO and Outside Officers, also serves as an advisory body to the President & CEO. It works to ensure fair and transparent officer appointment and remuneration by providing opinions to the President & CEO. The Audit & Supervisory Board consists of four members, two of which are Outside Audit & Supervisory Board Members. The board deliberates and reports on the execution of duties by Directors, the establishment and implementation of internal controls, internal audit guidelines for quarterly and year-end results, and the details and findings of audits.

Corporate Governance
Report

[Click here!](#)



Internal Controls

Based on the recognition that internal controls serve as the foundation of corporate governance, our Directors establish, maintain, and evaluate appropriate internal control systems, implement ongoing inspections and improvements, and conduct periodic reviews of basic policy for internal controls. While ensuring the reliability of compliance, risk management, and financial reports through internal controls, we also fully pay heed to the effectiveness and efficiency of operations. We have established a structure by which the Board of Directors draws on appropriate information to engage in decision-making, based on which business is executed.

Basic Policy on
Internal Control Systems

[Click here!](#)



Auditing by Internal Auditing Division and Audit & Supervisory Board Members

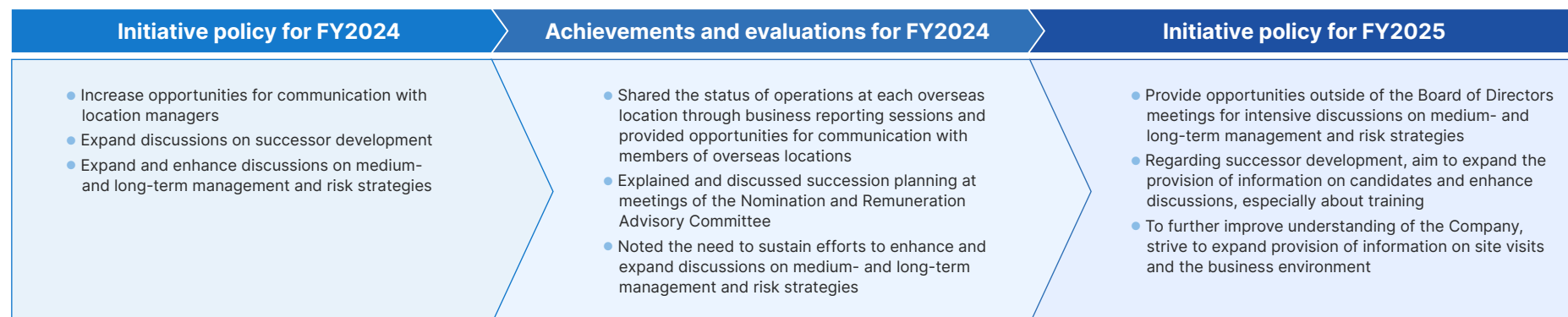
TOYO has established an Internal Auditing Division directly under the President & CEO. The Internal Auditing Division assesses the legality and rationality of the Company's operations and provides advice and counsel regarding operational effectiveness and efficiency. It independently assesses the maintenance and operation of internal controls related to financial reports and reports findings to the J-SOX Committee directly under the President & CEO, then to the Board of Directors. Although the Internal Auditing Division reports directly to the President, it also reports on the status of internal audits to the Audit & Supervisory Board four times a year under a dual reporting line. Audit & Supervisory Board Members audit Directors' execution of duties through attendance at Board of Directors and other key meetings, through interviews with Directors, Executive Officers, and employees on the status of operations and the execution of duties, and through investigation of the state of the Company's operations and finances. The Audit & Supervisory Board, Accounting Auditors, and the Internal Auditing Division, with full consideration of mutual independence, collaborate mutually through close communication in the conduct of audits by providing explanations of observations concerning the Company's operations and exchanging opinions on matters including respective annual audit plans, critical audit items, auditing methods, screening and quality control systems, and audit findings.

Evaluation of the Effectiveness of the Board of Directors

TOYO regularly evaluates and analyses its Board of Directors to enhance its efficacy, and discloses summaries of the procedures and findings thereof. In December 2024, we conducted a survey of all Directors and Audit & Supervisory Board Members that make up the Board of Directors. Drawing on this survey, the January 2025 regular meeting of the Board of Directors engaged in analysis, discussion, and evaluation. Below are key findings.

Method of evaluation

- Respondents All Directors and Audit & Supervisory Board Members (9 Directors; 4 Audit & Supervisory Board Members; 13 in total)
- Method of response 37 multiple-choice questions on a five-point scale; 8 written questions; 45 questions in total
- Items evaluated Composition and operation of the Board of Directors, support structure for Officers, training for Officers, dialogue with shareholders, and own efforts



Content of Discussions by the Board of Directors

- Basic policy and progress of important projects
- TOYO Group's business strategy and key risks
- Matters of corporate governance
- Progress and results of DXoT
- Public relations and investor relations activity reports (regular reports on investor feedback, etc.)
- Matters of sustainability (regular reports to the Board of Directors by the Sustainability Committee)
- Cost of capital-conscious management (disclosed in May 2024 and regularly reviewed thereafter)

Message from the Chairman of the Board of Directors

Efforts to improve the effectiveness and expertise of the operation of the Board of Directors

In the course of operating the Board of Directors, the Company aims to invigorate and deepen the substance of discussions by enhancing advance briefing of agenda items, reducing time spent on explanations at meetings, and allowing sufficient time for Q&A sessions and discussions with Outside Officers. Given the crucial timing of this fiscal year for formulating the next Medium-term Management Plan, the Board of Directors has been discussing matters from the strategy framework stage to clarify its policy. In the area of successor development, advisory committee meetings have been held more frequently, and sharing of development policies has been promoted through explanations by the President and opportunities for interaction with candidates. We also plan visits to FPSO project sites to provide opportunities for Outside Officers to further their understanding of the Company's business. Additionally, to respond to increasingly complex and uncertain global circumstances, the Board of Directors is strengthening discussions on risk management with the aim of continuously enhancing our corporate value.

Haruo Nagamatsu, Chairman of the Board of Directors



Policies on the Determination of Amounts of Remuneration for Directors and Audit & Supervisory Board Members, and Methods of Calculation

Remuneration for TOYO's Directors (excluding Outside Directors) is set to be suitable, fair, and balanced and to increase Directors' motivation to maximize the Company's corporate value while ensuring medium- to long-term profit for shareholders. Remuneration consists of a fixed portion determined according to the positions of individual Directors, and a performance-linked portion. Performance-linked remuneration is calculated based on current net profit attributable to owners of the parent, which is considered the most suitable indicator of the Group's business performance. The remuneration amount is determined by the President & CEO according to the level of contribution of individual Directors. To set appropriate remuneration levels for Directors and Audit & Supervisory Board Members and to strengthen accountability, the ratios for both fixed and performance-linked remuneration, as well as the calculation formula for performance-linked remuneration, are determined by the Board of Directors based on the findings of the Nomination and Remuneration Advisory Committee consisting of the President & CEO and Outside Officers, following discussions on any revisions deemed necessary by the President & CEO. In light of the roles and independence of Outside Directors and Audit & Supervisory Board Members, remuneration for these officers is fixed and is not linked to business performance.

(FY2024)

Officer classification	Directors (excluding Outside Directors)	Audit & Supervisory Board Members (excluding Outside Audit & Supervisory Board Members)	Outside Officers
Total remuneration (¥ million)	173	43	36
Total remuneration by type (¥ million)	Fixed remuneration	43	36
	Performance-linked remuneration	—	—
	Retirement benefits	—	—
	Non-monetary remuneration, etc. included above	—	—
Number of eligible officers	5	3	6

Nomination and Remuneration Advisory Committee

TOYO has established the Nomination and Remuneration Advisory Committee as an advisory body to the President & CEO, with the goal of ensuring transparency in the decision-making processes for the nomination of Director and Executive Officer candidates, the appointment and dismissal of the Representative Director, the appointment and dismissal of executives, and the remuneration, etc. of Directors and Executive Officers. The Nomination and Remuneration Advisory Committee meets once per year in principle, with additional meetings held as required. The Nomination and Remuneration Advisory Committee consists of four members: the President & CEO, who serves as Committee chair, and three Independent Outside Directors.

	Nomination Advisory Committee	Remuneration Advisory Committee
Purpose	To serve as an advisory body to the President & CEO and ensure transparency in decision-making processes on the following matters.	
Agenda items	(1) Proposals for the appointment and dismissal of Directors for submission to the Shareholders Meeting (2) Appointment and dismissal of the Representative Director (3) Appointment and dismissal of executives (4) Matters concerning the development of successors to the President & CEO and other Directors and Executive Officers (5) Other nominations of Directors, Executive Officers, etc. (selection process for officer candidates, eligibility requirements for officers, evaluation criteria, etc.)	(1) Remuneration system for Directors and Executive Officers (2) Breakdown of compensation, including compensation amounts, for individual Directors and Executive Officers (3) Inquiries from the President & CEO regarding the remuneration system for Directors and Executive Officers: remuneration methods, calculation methods, remuneration tables, etc.
Committee structure	Eiji Hosoi (Chairman), President & CEO; Masami Tashiro, Outside Director; Tatsuya Terazawa, Outside Director; Sayoko Miyairi, Outside Director	
Meetings held in FY2024	2	2
Meeting topics	- Appointment and dismissal of the Representative Director - Appointment and dismissal of executives - Matters concerning the development of successors to the President & CEO and other Directors and Executive Officers - Other nominations of Directors, Executive Officers, etc. (selection process for officer candidates, eligibility requirements for officers, evaluation criteria, etc.)	- Remuneration system for Directors and Executive Officers - Breakdown of compensation, including compensation amounts, for individual Directors and Executive Officers - Inquiries from the President & CEO regarding the remuneration system for Directors and Executive Officers: remuneration methods, calculation methods, remuneration tables, etc.

Compliance

Basic approach and policies concerning compliance

The Group's Basic Policy on Compliance requires that every member of our workforce not only comply with national and international laws, regulations, and rules, but also abide by the spirit of these rules in the execution of their day-to-day work. It further requires that employees improve the integrity and ethical values of the Company by acting in conformance with our Corporate Philosophy and by acting with a social conscience.

Commitment by the top management

Based on our recognition of the importance of top management's commitment to the maintenance and strengthening of compliance, our President & CEO annually issues a message that emphasizes the importance of compliance to Directors and to employees of all group companies.

Codes and manuals

Our Group has established TOYO's Code of Conduct, a Compliance Manual, and other related rules. We work to raise awareness of compliance among executives and employees and ensure compliance with laws and regulations. Once per year, we also have executives and employees submit written statements pledging to follow the above rules.

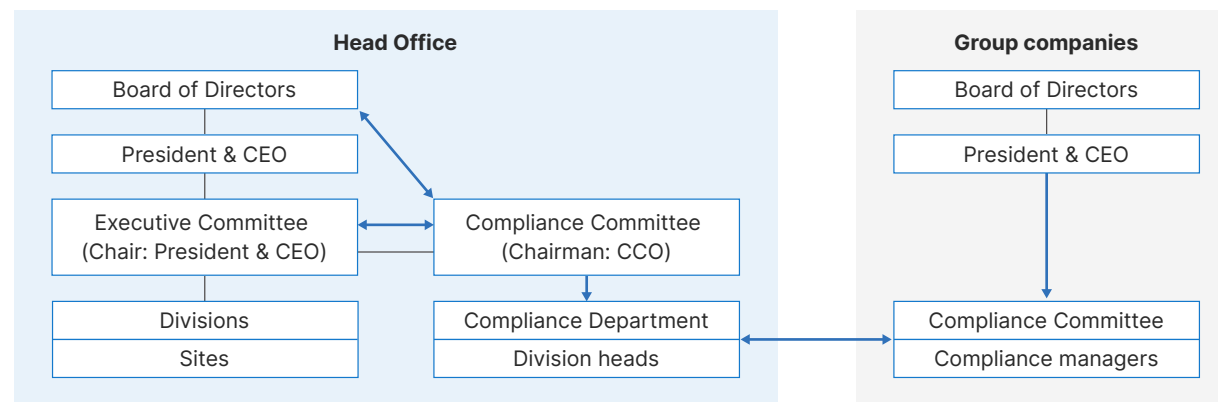
Code of
Conduct

[Click here!](#)



Compliance system

We have established a Compliance Committee chaired by our Chief Compliance Officer (CCO), under which we endeavor to operate and monitor our compliance system and compliance-related educational and promotional activities. More specifically, (1) the Compliance Committee devises awareness raising and promotion activities, (2) the Compliance Department (which serves as the Secretariat of the committee) and division heads lead the way in implementing the above activities, (3) the committee confirms and evaluates implementation status, and (4) the CCO regularly reports the outcomes to the Board of Directors and the Executive Committee. The Board of Directors conducts a management review once per year. To ensure more unified Group-wide compliance activities, we have built a system under which Compliance Committees and managers are set up at group companies and regularly exchange opinions and share information with our Compliance Department.



Internal whistleblowing system

As a system to ensure appropriate reporting to the Board of Directors and the Audit & Supervisory Board, we have developed an internal whistleblowing system concerning compliance, including the violation of laws and regulations. At all group companies, we establish internal and external points of contact for consultation and whistleblowing (including hotlines set up through third-party organizations, with anonymity offered to whistleblowers), and strictly prohibit any disadvantageous treatment of persons providing such information.

Number of serious violations of compliance

0

Number of cases of whistleblowing

15*

* Nonconsolidated and consolidated subsidiaries.

Notably, there were 0 serious violations of compliance among the 150 cases in the Brazilian subsidiary that became a consolidated subsidiary during fiscal 2024

Compliance training

As efforts to raise awareness of and promote compliance, we implement the following initiatives:

- (1) Compliance-related group training,
- (2) new-employee training, (3) e-learning,
- (4) mini compliance tests,
- (5) compliance newsletter distribution, and
- (6) in-house lectures.

Approach to bribery risks

The Group strictly prohibits bribery as well as the unlawful provision, offer, or promise of money or other benefit to foreign public officials, etc. We target all executives and employees with education and awareness-raising concerning the necessity of compliance with laws including the Unfair Competition Prevention Act, the US Foreign Corrupt Practices Act (FCPA), and the UK Bribery Act. We continue to enhance and expand our program for preventing bribery of foreign public officials, and in particular, mandate applications and approvals prior to any provision of gifts, business entertainment, etc. as we work to prevent corruption.

Risk Management

Basic policy on risk management

Effective risk management in the form of risk assessment/ evaluation and appropriate risk-taking is essential to the enhancement of corporate value. In our business overall, we identify events that may pose risks, including changes in the business environment, then clarify the processes of classifying, analyzing, evaluating, and responding to the risks, and clarify the relevant divisions and related regulations. To assess and address potential risks as early as possible, we conduct periodic reviews, identify key risk factors, and carry out risk management. As an engineering company, we intend to continually build on our experience to enhance our risk management capabilities and appropriately deal with risks.

Basic Policy on HSE,
Quality and Information Security

[Click here!](#)



Privacy Policy

[Click here!](#)



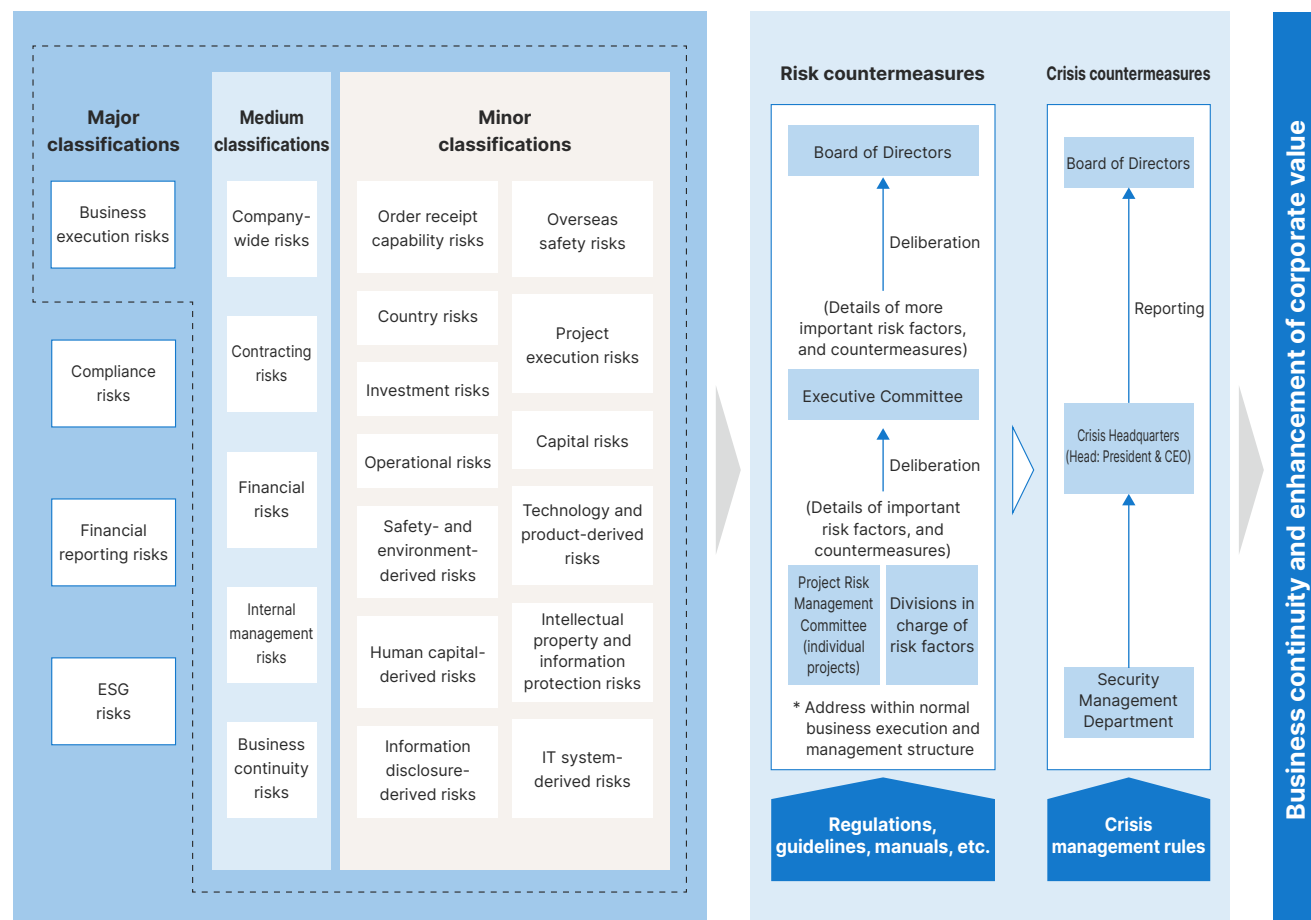
Information Security Initiatives
and Risk Management of
Group Companies

[Click here!](#)



Risk classification and basic system

We classify risks to our Group's management from multiple angles in business execution, and evaluate the risks according to their possibility of occurrence and severity. At the same time, we evaluate a given risk from different perspectives such as compliance risk (fraud prevention and response), financial reporting risk (financial information disclosure), and ESG risk (non-financial information disclosure), achieving multi-faceted risk management.



Quality, and Health and Safety Initiatives

Basic policy

TOYO recognizes that complying with HSE and quality-related laws and regulations, as well as satisfying the requirements of customers and society with regard to those, are essential preconditions for engaging in business activities and fulfilling our social responsibilities as a company. We have established basic policies for doing so, which we work to realize under the management structure outlined below.

ISO certification



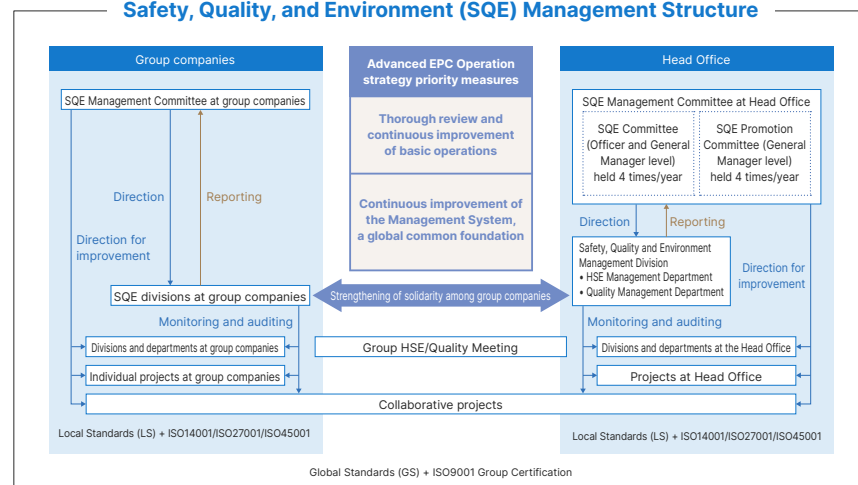
Click here!

Basic Policy on HSE, Quality and Information Security



Click here!

Safety, Quality, and Environment (SQE) Management Structure



ISO9001: Quality Management System; ISO14001: Environmental Management System; ISO27001: Information Security Management System; ISO45001: Occupational Health and Safety Management System

- Notes: 1. Global Standards and Local Standards: Standards used in common across the TOYO Group were unified as Global Standards in 2008 so that all group companies would operate using the same management criteria. TOYO Group obtained ISO9001 group certification for its unified group operation in 2013 and has maintained certification since. By contrast, Local Standards are applied as work standards for individual group companies when executing domestic projects under the laws, regulations, etc. of the countries in which the companies are located.
2. Group HSE/Quality Meeting (strengthening of solidarity among group companies): A meeting that brings the HSE/quality managers of group companies together to build consensus and promote improvements through active communication. Group companies also actively put forth proposals, which leads to the enhancement of management capabilities.

Health and Safety

To ensure the occupational health and safety that are the foundation of business activities, over the years TOYO has faithfully undertaken efforts that include strengthening health and safety leadership by management, fostering a culture of health and safety, and adhering to health and safety standards. For example, as we strive for zero occupational accidents, we continue working to improve our safety activities, using lost time incident rate and total recordable incident rate as management indicators. As a result, TOYO maintains a lost time incident rate that is among the lowest in the industry. Safety record data covering the past 10 years, with overseas group companies included, is shown below.

TOYO's safety record over the last 10 years

(ILO basis: Incidence rate per million hours worked)

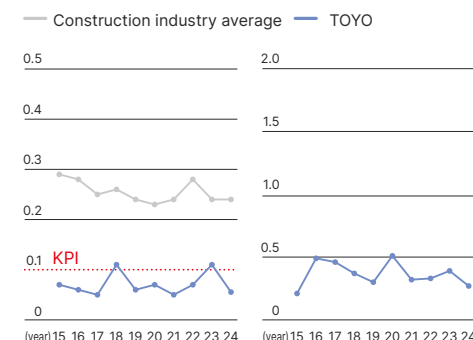
Year	Labor hours	LTIR*1	TRIR*2
2015	67,308,769	0.07	0.21
2016	52,540,748	0.06	0.49
2017	76,493,784	0.05	0.46
2018	102,817,669	0.11	0.37
2019	46,642,608	0.06	0.30
2020	44,895,756	0.07	0.51
2021	59,524,567	0.05	0.32
2022	82,244,375	0.07	0.33
2023	83,713,637	0.11	0.39
2024	72,250,565	0.06	0.26

*1 Lost time incident rate (LTIR) = total lost time incidents x 1,000,000 / labor hours

*2 Total recordable incident rate (TRIR) = number of recordable incidents x 1,000,000 / labor hours

Lost time incident rate (LTIR)

Total recordable incident rate (TRIR)



Note: Source for construction industry average data: IOGP safety performance indicators - 2024 data

Initiatives for the prevention of disasters

To keep the slogans of "Safety above all" and "Safety is the foundation of corporate activities" from being mere rallying cries, TOYO engages in risk assessments involving overall construction work. Moreover, TOYO works to foster even greater awareness of safety and to demonstrate safety leadership across the Company, including group companies, to keep natural activities such as preparation of construction guidelines, pre-work confirmation of procedures at toolbox meetings, and risk prediction activities from becoming formalities. Compared to 2023, the number of occupational accidents decreased in 2024. However, the downward trend is leveling out at sites in Japan. Accordingly, we are further strengthening specific measures, including providing direct safety guidance to on-site workers, making safety training mandatory, and introducing incentive plans to raise safety awareness. By implementing these Company-wide measures, we will renew our efforts to prevent occupational accidents.

Relationship with Stakeholders

With “Engineering for Sustainable Growth of the Global Community” as its mission, TOYO is tackling four materialities: “Aim to realize an environmentally friendly society,” “Enrich people’s lives,” “People of diverse backgrounds engage in active, meaningful work,” and “Establish an organization with integrity and discipline.” To achieve these, we believe that appropriate collaboration with diverse stakeholders including shareholders, employees, business partners, customers, and local communities is vital. Toward that end, in addition to establishing a multi-stakeholder policy, we will earn the trust of stakeholders and engage in sustainable corporate activities through dialogues and the activities noted below.

Multi-Stakeholder
Policy

[Click here!](#)



Stakeholders	Main dialogues and activities
Shareholders and investors	- Shareholders Meeting - Financial statements, business strategy briefings - Small meetings, individual interviews - Integrated Report - Overseas group company and construction site tours - Enhanced investor relations website - Briefings for individual investors Spotlight Expanded content for individual investors The President & CEO hosted online information sessions, and Tousei Web and MINKABU collaborated on a special video released to explain the Company. Check out the video, which features great commentary by financial analyst Mitsui!  Individual investors page Click here! 
Employees	- Management policy briefings - New Year's address by the President & CEO - Employee engagement surveys - Support for cultural and sports activities - Dialogue with labor unions - Family Day (workplace tours) - Communication of information via in-house intranet/email Spotlight Family Day! After relocating to our new Head Office, we held a Family Day in which we invited employees' families to the workplace. The President & CEO and employees introduced the Company and gave office tours, and we held an experimental workshop with urea. These and other events helped attendees understand the Company more deeply and enjoy a welcoming atmosphere conducive to natural communication with their families.  Report on Family Day Click here! 
Business partners	- Declaration of Partnership Construction - Consideration toward and collaboration with business partners based on our Basic Policy on Business Transactions
Customers	- Dialogue through sales activities - Participation in exhibitions - Provision of information on website - Introduction in product brochures - Introduction to Company in PR publications
Communities	- Briefings for residents near construction sites - Sponsorship of local events - Official sponsor of Chiba Lotte Marines baseball team - Donation of medical equipment and office supplies - Education-related support (women's toilet maintenance and construction of classrooms in India, etc.) - Acceptance of trainees from overseas - Skill enhancement support for local engineers - UNICEF foreign coin donation - Elementary school outreach classes - Dispatch of project management course instructors to educational institutions

Financial
Highlights[Click here!](#)

Five-Year Financial Highlights

		FY2020 (fiscal year ended March 31, 2021)	FY2021 (fiscal year ended March 31, 2022*)	FY2022 (fiscal year ended March 31, 2023)	FY2023 (fiscal year ended March 31, 2024)	FY2024 (fiscal year ended March 31, 2025)
P/L items						
Net sales	(¥ million)	184,000	202,986	192,908	260,825	278,091
Gross profit	(¥ million)	18,557	20,838	24,268	28,391	26,088
Gross profit margin	(%)	10.1	10.3	12.6	10.9	9.4
SG&A expenses	(¥ million)	16,941	17,875	19,504	21,679	23,496
Operating income	(¥ million)	1,615	2,963	4,764	6,712	2,591
Operating income margin	(%)	0.9	1.5	2.5	2.6	0.9
Ordinary income	(¥ million)	2,781	3,126	3,888	6,995	6,459
Ordinary income margin	(%)	1.5	1.5	2.0	2.7	2.3
Profit attributable to owners of parent	(¥ million)	814	1,620	1,647	9,821	2,020
Profit margin	(%)	0.4	0.8	0.9	3.8	0.7
Orders						
New orders (consolidated)	(¥ million)	122,895	274,467	211,038	159,870	237,964
New orders (equity method affiliates)	(¥ million)	N/A	15,943	43,230	302,466	6,279
New orders (including equity method affiliates)	(¥ million)	N/A	290,410	254,268	462,336	244,243
Order backlog (consolidated)	(¥ million)	310,691	381,954	399,192	299,675	301,713
Order backlog (equity method affiliates)	(¥ million)	N/A	14,330	43,274	250,733	108,447
Order backlog (including equity method affiliates)	(¥ million)	N/A	396,284	442,466	550,408	410,160
B/S items						
Total assets	(¥ million)	218,255	240,853	256,311	285,996	286,598
Net assets	(¥ million)	40,077	44,562	49,105	64,153	60,243
Equity	(¥ million)	39,935	44,393	48,924	63,937	60,011
Equity ratio	(%)	18.3	18.4	19.1	22.4	20.9
Interest-bearing debt	(¥ million)	28,167	36,679	36,586	36,278	51,907
Net interest-bearing debt	(¥ million)	(66,316)	(53,121)	(71,936)	(72,793)	(20,601)
Cash flows						
Cash flows from operating activities	(¥ million)	17,753	(6,790)	15,591	6,001	(23,094)
Cash flows from investing activities	(¥ million)	(2,712)	(7,851)	(9,469)	7,338	(19,772)
Cash flows from financing activities	(¥ million)	(451)	7,608	(1,574)	(1,059)	674
Change in cash and cash equivalents	(¥ million)	14,270	(4,683)	6,065	13,206	(36,562)
Financial indicators						
Return on equity (ROE)	(%)	2.2	3.8	3.5	17.4	3.3
Earnings per share (EPS)	(¥)	13.91	27.65	28.11	167.59	34.49
Book value per share (BPS)*1	(¥)	650.52	766.81	885.04	1,276.77	1,174.35
Price-to-earnings ratio (P/E ratio)	(times)	56.2	23.0	20.1	5.8	20.1
Dividend per share	(¥)	0.0	0.0	0.0	12.0	25.0
Dividend payout ratio	(%)	—	—	—	7.2	72.5

*1 Book value per share (BPS) from the fiscal year ended March 31, 2019 is calculated as residual assets attributable to class A preferred shares issued in March 2019, deducted from total net assets.

*2 The company applied "Accounting Standard for Revenue Recognition" (Revised ASBJ Statement No. 29, March 31, 2020), etc. from the beginning of the fiscal year ended March 31, 2022. Major management indicators, etc. for the fiscal year ended March 31, 2022 and beyond are based on application of the relevant accounting standards, etc.

ESG Data

Environment

	FY2020 (fiscal year ended: March 31, 2021)	FY2021 (fiscal year ended: March 31, 2022)	FY2022 (fiscal year ended: March 31, 2023)	FY2023 (fiscal year ended: March 31, 2024)	FY2024 (fiscal year ended: March 31, 2025)
Industrial waste recycling rate (domestic construction sites)	90%	88%	94%	83%	91%
Construction site industrial waste volume (domestic)	9,992 t	8,717 t	17,697 t	11,270 t	7,352 t
Construction site industrial waste volume (overseas)*1	37,963 t	6,557 t	10,318 t	33,091 t	33,400 t
Industrial waste volume (Domestic Head Office)	58 t	63 t	70 t	73 t	110 t
No. of toxic material leaks (Domestic/overseas construction sites)	0	0	0	0	0
GHG emissions for TOYO Group overall (Scope 1 & 2)*2	9,430 t	11,804 t	13,656 t	15,015 t	10,967 t
(Scope 1)*2	1,244 t	3,226 t	3,910 t	3,748 t	3,623 t
(Scope 2)*2	8,186 t	8,579 t	9,746 t	11,267 t	7,345 t
Intensity (per employee) basis (Scope 1 & 2)*2	1.60 t/person	1.87 t/person	2.17 t/person	1.74 t/person	1.19 t/person
GHG emissions for TOYO Group overall (Scope 3)*2 *3	—	—	—	—	589,987 t
Electricity usage at offices in Japan and overseas locations*1	9,375 MWh	9,757 MWh	10,316 MWh	10,460 MWh	10,448 MWh
Electricity usage at domestic and overseas construction sites*1	6,882 MWh	8,649 MWh	7,177 MWh	9,420 MWh	7,625 MWh
Renewable energy power usage included above*1	—	—	3,960 MWh	3,703 MWh	6,836 MWh
Water usage (Domestic Head Office)	18,500 m³	18,200 m³	21,700 m³	23,600 m³	20,600 m³
Rainwater usage (Domestic Head Office)	3,100 m³	4,000 m³	3,900 m³	2,800 m³	1,500 m³
Purchase volume of printing paper (wood-free paper) (Domestic Head Office)	18.2 t	16.9 t	16.1 t	14.8 t	8.9 t

*1 Calendar year (Jan.–Dec.)

*2 Group companies, including domestic and overseas construction site offices (calendar year)

*3 Categories 1–7

Governance

Compliance Risk Management Reports

	FY2020 (fiscal year ended: March 31, 2021)	FY2021 (fiscal year ended: March 31, 2022)	FY2022 (fiscal year ended: March 31, 2023)	FY2023 (fiscal year ended: March 31, 2024)	FY2024 (fiscal year ended: March 31, 2025)
Number of serious violations of compliance	0	0	0	0	0
Number of cases of whistleblowing*4	4	9	21	17	15
Number of compliance e-learning participants*5 (Scope: New employees, employees who have not yet participated)	66	69	76	96	88
Total number of compliance mini test participants*5	2,298	2,404	2,479	2,553	2,553

Information security promotion initiatives

Serious information security incidents	0	0	0	0	0
--	---	---	---	---	---

Governance-related data

Directors	5	5	5	5	5
Outside Directors	4	4	4	4	4
Audit & Supervisory Board Members	2	2	2	2	2
Outside Audit & Supervisory Board Members	2	2	2	2	2
Average attendance ratio of Directors and Audit & Supervisory Board Members at meetings of the Board of Directors	99.6%	98.8%	98.5%	97.6%	99.3%

*4 Non-consolidated and consolidated subsidiaries. Notably, there were 0 serious violations of compliance among the 150 cases in the Brazilian subsidiary that became a consolidated subsidiary during fiscal 2024

*5 Non-consolidated

Securities
Report

[Click here!](#)



Social

		FY2020 (fiscal year ended March 31, 2021)	FY2021 (fiscal year ended March 31, 2022)	FY2022 (fiscal year ended March 31, 2023)	FY2023 (fiscal year ended March 31, 2024)	FY2024 (fiscal year ended March 31, 2025)
Consolidated	Number of employees*2 *3	4,425	4,625	5,730	6,207	5,827
	Men	3,749	3,888	4,752	5,140	4,752
	Women (%)	676 (15%)	737 (16%)	978 (17%)	1,067 (17%)	1,075 (18.4%)
	No. of engineers*3	2,824	3,087	3,265	3,577	3,687
	Men	2,537	2,745	2,873	3,153	3,250
	Women (%)	287 (10%)	342 (11%)	392 (12%)	424 (12%)	437 (11.8%)
	No. of managers*3 *4	1,112	1,150	1,163	1,106	1,140
	Men	1,055	1,090	1,099	1,038	1,067
	Women (%)	57 (5%)	60 (5%)	64 (6%)	68 (6%)	73 (6.4%)
	Labor hours*1	44,895,756	59,524,567	82,244,375	83,713,637	72,250,565
	Fatalities*1	0	0	1	1	0
	Lost time incidents*1	3	3	5	8	4
	LTIR*1 *5 (total fatalities and lost time incidents)	0.07 (3 incidents)	0.05 (3 incidents)	0.07 (6 incidents)	0.11 (9 incidents)	0.06 (4 incidents)
	Medical treatment*1 (No-lost-time incidents)	20	16	21	24	15
	TRIR*1 *6 (total incidents)	0.51 (23 incidents)	0.32 (19 incidents)	0.33 (27 incidents)	0.39 (33 incidents)	0.26 (19 incidents)

*1 Calendar year (Jan.–Dec.)

*2 Excluding temporary employees

*3 Main EPC companies, including equity method companies

*4 Number of managers in positions equivalent to team manager or general manager

*5 Lost time incident rate (LTIR) = total lost time incidents x 1,000,000 / labor hours

*6 Total recordable incident rate (TRIR) = number of recordable incidents x 1,000,000 / labor hours

*7 As of June 1 of each fiscal year; percentage of disabled persons hired includes special-purpose subsidiaries

*8 Excluding employees on long-term assignments overseas, employees on temporary assignment, mid-year recruits, employees on long-term sick leave, and employees on extended leave

Securities
Report

[Click here!](#)



		FY2020 (fiscal year ended March 31, 2021)	FY2021 (fiscal year ended March 31, 2022)	FY2022 (fiscal year ended March 31, 2023)	FY2023 (fiscal year ended March 31, 2024)	FY2024 (fiscal year ended March 31, 2025)
Non-consolidated	Number of employees*2	968	989	974	968	975
	Men	790	809	800	780	778
	Women (%)	178 (18%)	180 (18%)	174 (18%)	188 (19%)	197 (20%)
	No. of engineers	738	754	744	716	715
	Men	687	703	694	667	661
	Women (%)	51 (7%)	51 (7%)	50 (7%)	49 (7%)	54 (7.5%)
	No. of managers*4	569	573	564	522	501
	Men	543	548	536	494	472
	Women (%)	26 (5%)	25 (4%)	28 (5%)	28 (5%)	29 (6%)
	No. of foreigners in managerial roles (%)	—	28 (5%)	35 (6%)	35 (8%)	40 (8%)
	No. of mid-career hires in managerial roles (%)	—	126 (22%)	138 (24%)	135 (26%)	124 (25%)
	No. of foreign employees	50	60	61	60	72
	No. of disabled persons hired (%)*4	21 (2.1%)	24 (2.4%)	28 (2.8%)	26 (2.6%)	25 (2.3%)
	No. of male employees taking childcare leave	5	10	14	13	21
	Percentage of male employees taking childcare leave	—	31.3%	43.8%	37.1%	56.8%
	Average length of paternity leave	—	58.2 days	61.4 days	163.9 days	72.0 days
	No. of female employees taking childcare leave	7	12	5	7	7
	No. of persons taking paternity leave	25	28	25	27	32
	No. of persons working shorter hours for childcare reasons	15	12	10	12	16
	No. of persons working shorter hours for nursing care reasons	1	1	0	2	2
	No. of persons taking family care leave	81	101	144	170	184
	No. of persons taking nursing care leave	0	1	1	1	2
	Percentage of annual leave used*8	57.6%	54.7%	61.2%	61.3%	61.1%
	Wage gap between men and women	—	69.3%	71.1%	71.6%	71.3%
	Total training hours	—	—	—	—	108,659
	Company-wide training expenses	—	—	—	—	¥92,456,094
	Turnover rate	—	—	—	—	3.9%
	Percentage of mid-career hires	—	—	—	—	31.8%

Corporate Information (as of March 31, 2025)

Corporate data

Corporate name	Toyo Engineering Corporation
Founded	May 1, 1961
Capital stock	¥18,198 million
Number of employees	6,229 (consolidated)
Business activities	Engineering and Construction for Industrial Facilities R&D support, design, engineering, procurement, construction, commissioning, technical assistance for industrial facilities Business fields: Oil, gas, petrochemicals, chemicals, water treatment, power plants, advanced production systems, pharmaceuticals, fine chemicals, biotechnology, environmental conservation, resource development, artificial intelligence, others

Affiliate information

Domestic affiliates

Tec Air Service Corp.
TEC Business Services Corp.
TEC Project Services Corporation
Chiba Data Center Co., Ltd.
Tec Accounting & Consulting LTD.

Overseas affiliates

South Korea	Toyo Engineering Korea Limited
China	Toyo Engineering Corporation (China)
Indonesia	PT. Inti Karya Persada Teknik
Malaysia	Toyo Engineering & Construction Sdn. Bhd.
India	Toyo Engineering India Private Limited
Singapore	Offshore Frontier Solutions Pte. Ltd.
Europe	Toyo Engineering Europe, S.r.l
U.S.A.	Toyo U.S.A., Inc.
Brazil	TS Participações e Investimentos S.A.



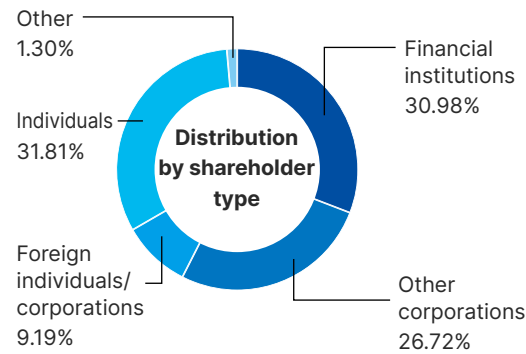
Information about our locations

[Click here!](#)

Stock information

Stock exchange listing	Tokyo Stock Exchange
Authorized shares	Common stock: 100,000,000 shares Class A preferred stock: 25,000,000 shares
Capital stock issued	Common stock: 38,558,507 shares Class A preferred stock: 20,270,300 shares
Number of shareholders	Common stock: 17,568 Class A preferred stock: 2
Securities code	6330

Types of shareholder (common shares)



List of major shareholders

(1) Common shares

Shareholder	Number of shares held (1,000 shares)	Percentage of voting rights held (%)	Shareholding ratio (%)
Mitsui & Co., Ltd.	8,754	22.90	14.94
Custody Bank of Japan, Ltd. (Sumitomo Mitsui Trust Bank, Limited. Re-trust Account, Mitsui Chemicals, Inc. Pension Trust Account)	5,140	13.45	8.77
The Master Trust Bank of Japan, Ltd. (Trust Account)	3,929	10.28	6.71
TAISEI Corporation	1000	2.62	1.71
Custody Bank of Japan, Ltd. (Trust Account)	600	1.57	1.02
Sumitomo Mitsui Banking Corporation	470	1.23	0.80
STATE STREET BANK AND TRUST COMPANY 505025	407	1.06	0.69
JPMorgan Securities Japan Co., Ltd.	327	0.86	0.56

(2) Class A preferred shares

Shareholder	Number of shares held (1,000 shares)	Percentage of voting rights held (%)	Shareholding ratio (%)
Integral Team Limited Partnership	17,576	—	29.99
Innovation Alpha Team L.P.	2,693	—	4.60

Notes: 1. Shareholding ratio is calculated after the deduction of 229,629 treasury shares.
2. Class A preferred shares do not hold voting rights.

Production flow



Editorial Postscript

Thank you for reading Integrated Report 2025. In this report, we communicate our value creation efforts, medium- and long-term growth strategies, and stance on sustainability. We hope the report gives you a better sense of where TOYO is now and the outlook and challenges ahead as we continue to contribute to resolving social issues on the strength of our global perspective and dependable technological capabilities. We would like to take this opportunity to express our gratitude to the analysts, institutional investors, internal stakeholders, and publishing company for their cooperation in preparing this report. Although we faced difficulty in organizing and eloquently expressing the information in the limited time we had, we felt supported by the knowledge and enthusiasm of many people, and thus feel that we have succeeded in creating a report that conveys the distinctive character of TOYO. We will continue to appreciate the constructive dialogue with everyone and make sincere efforts to sustainably enhance our corporate value while striving to disclose information timely and properly. Your feedback and comments on this report will greatly encourage us to make further improvements in the future.

Corporate Communications Department,
Integrated Report Production Team



TOYO ENGINEERING CORPORATION

<https://www.toyo-eng.com/jp/en>