

# TOKYO KEIKI Vision 2030

At the beginning of fiscal 2021, the TOKYO KEIKI Group formulated “TOKYO KEIKI Vision 2030,” looking ahead to the next 10 years. This vision, which marks the 125th anniversary of TOKYO KEIKI’s founding, outlines the Group’s aspirations for 2030 in order to continue sustainable growth for the next 150 to 200 years.

## Purpose of the Vision

To date, as a result of our efforts to stay attuned to the problems facing our Japanese customers and to meet their expectations, the TOKYO KEIKI Group has built a number of leading businesses in niche domestic markets. However, we have come to the realization that to achieve further growth, we need to take a broader perspective in terms of developing our businesses.

By making our aspirations a reality through “TOKYO KEIKI Vision 2030,” we will use the original technologies we have developed over many years to drive new innovation, creating “global niche-leading businesses” that take the SDGs as their starting point. In turn, this will allow us to shift to a stage of sustainable growth and mid- to long-term corporate value.

## Mission, Vision, and Values

In “TOKYO KEIKI Vision 2030,” we defined our “Mission,” which is what we aim to do, our “Vision,” which is what we aim to become, and our “Values,” which are a shared set of beliefs for realizing our Vision.

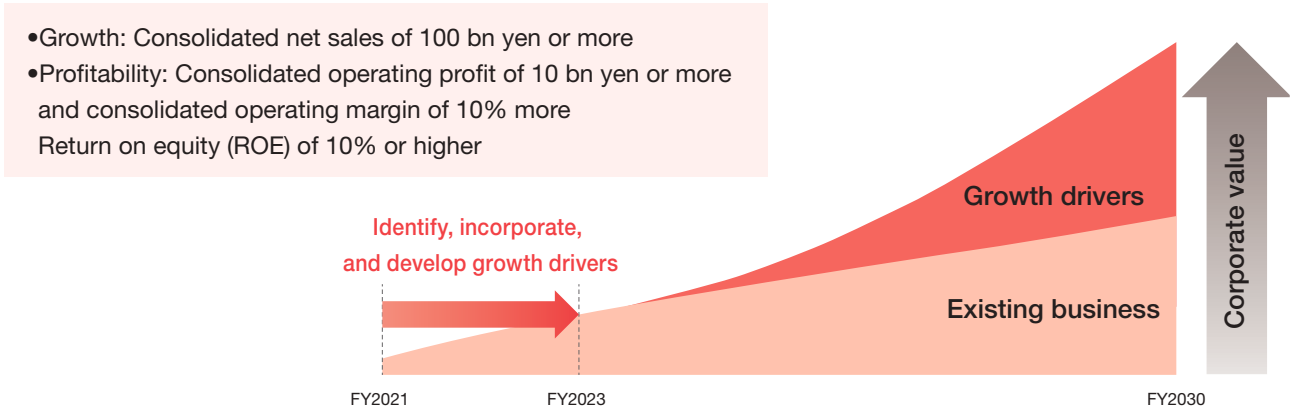


## Management targets by 2030

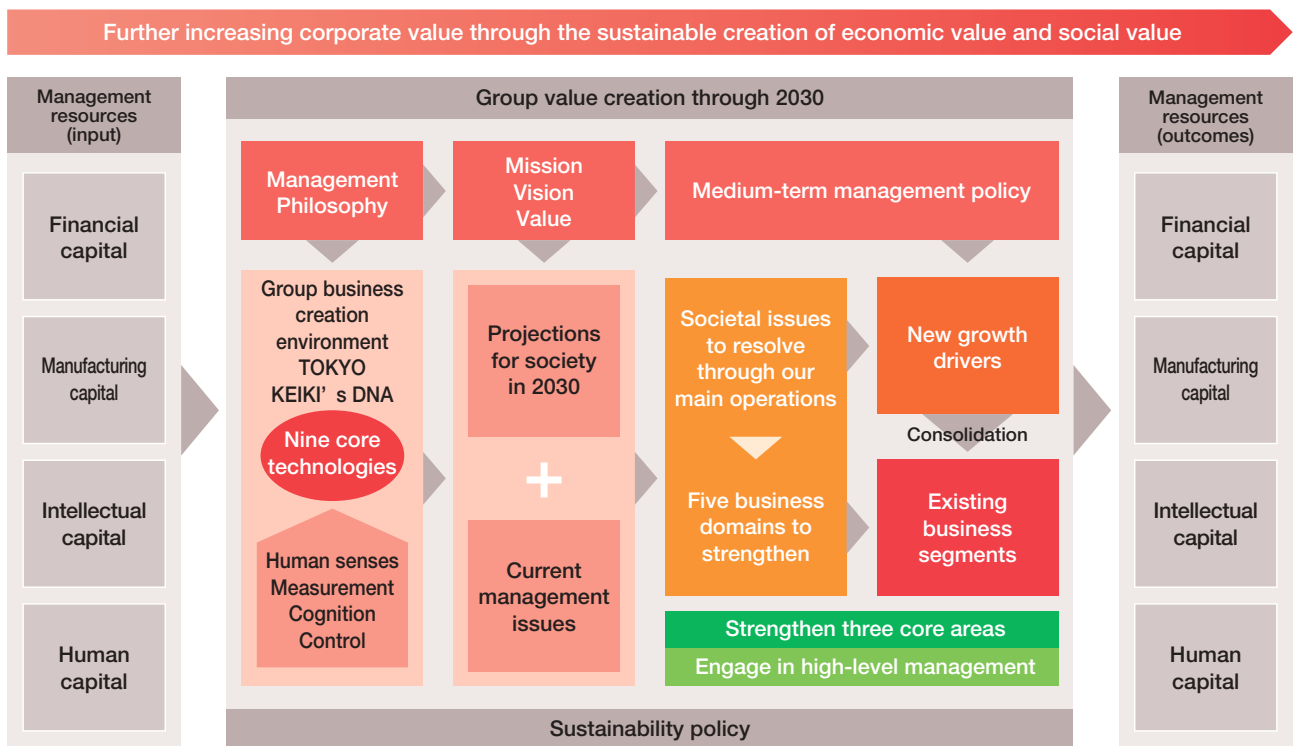
We anticipate that creating “global niche-leading businesses” will require significant investment in product development and market development because of differences in specifications and standards, as well as speeding up of the process through M&As, with the aim of complementing production, sales, and technology without insisting on vertical integration. Making effective use of funds based on the financial foundation that we have established so far, we will work to swiftly launch

several growth drivers that are under development. We will then expand the scale of our business by discovering and cultivating new growth drivers while establishing a growth cycle that reinvests the profits generated from growth drivers that have developed into sources of revenue and the expansion of existing businesses.

On the basis of this growth cycle, we have set the following targets for management indicators in 2030.



### Overview of TOKYO KEIKI Vision for 2030



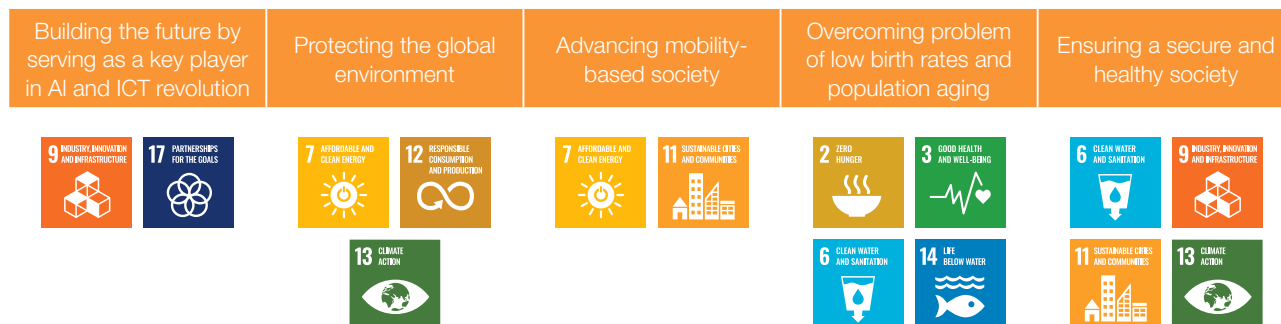
### Business domains to strengthen

In “TOKYO KEIKI Vision for 2030,” the five domains to strengthen business are defined based on projections for society in 2030 matter. We believe that in 2030, society will be based on safe and secure lifestyles, working toward a low-carbon society and other environmental initiatives based on a shared understanding of the SDGs. In addition, the development of new technologies is expected to expand the market for areas such as AI, IoT, and space business. In light of this social environment, we have identified five business domains to focus on for the Group’s growth.

#### Projections for society in 2030

- Global sharing and pursuit of SDGs
- Diversification and advancement of sensor functions applicable for use in AI, IoT, and big data
- Advancement of clean energy revolution
- Full-scale development of aerospace business
- Advancements in software technology in the mobility domain

Set 5 domains to strengthen based on societal issues to resolve through our main operations



Identifying candidate growth drivers

Next, we identified five candidates for growth drivers by comparing our existing businesses and technologies with the domains for business strengthening.

| Candidates                 | Background of candidates   |
|----------------------------|--|
| Edge AI business           | <ul style="list-style-type: none"> <li>In response to industry changes driven by the shift to an AI society, we will develop our base technology for machine learning into Edge AI in order to overcome societal issues related to low birth rates and population aging.</li> </ul>  |
| Hydrogen & energy business | <ul style="list-style-type: none"> <li>We will develop products related to hydrogen stations to resolve environmental issues towards achieving carbon neutral in a mobility-based society.</li> </ul>  |
| Aerospace business         | <ul style="list-style-type: none"> <li>Backed by our track record as a microwave device manufacturer for the aviation and aerospace industry, we will contribute to the realization of a secure society through our business related to utilizing satellites in existing business markets.</li> </ul>  |
| Railway business           | <ul style="list-style-type: none"> <li>We will expand our existing rail line maintenance business to resolve problems related to the railway safety and security and the issue of low birth rates and population aging by conducting low-labor infrastructure inspections.</li> </ul>  |
| Life sciences              | <ul style="list-style-type: none"> <li>We will expand the use of microwave and plasma applied technology in the medical and hygiene sectors to contribute to secure societies and the healthy lifestyles of people.</li> <li>We will expand on the human activity domain that combines reality and virtual reality to increase security, safety, health, and comfort in an age of low birth rates and population aging.</li> </ul> |




Enhancement of existing businesses

In addition, we have also identified points to enhance within existing businesses in accordance with the domains to strengthen and the candidate growth drivers.

| Business segments                           | Key points of business enhancement  |
|---|---|
| Marine Systems Business                     | <ul style="list-style-type: none"> <li>Resolve societal issues related to safety, energy conservation, labor-saving, and environment measures by developing business and products for autonomous and unmanned vessels, and developing technology for energy-saving ship maneuvering that contribute to reductions in greenhouse gasses.</li> </ul>                    |
| Hydraulics and Pneumatics Business          | <ul style="list-style-type: none"> <li>Contribute to the advancement of a mobility-based society and energy shifts by developing facilities for hydrogen stations and developing pump systems for EV/FCV construction machinery.</li> </ul>   |
| Fluid Measurement Equipment Business        | <ul style="list-style-type: none"> <li>Contribute to secure lifestyles by measuring, monitoring, and managing fluid with a focus on flood prevention fields such as rivers and ponds.</li> </ul>  |
| Defense & Communications Equipment Business | <ul style="list-style-type: none"> <li>In the private sector, we will engage in the AI &amp; ICT revolution by developing microwave products for the semiconductor market and equipment related to smart agriculture.</li> <li>In the public sector, we will contribute to security by engaging in R&amp;D for equipment used in next-generation fighters.</li> </ul> |
| Other Businesses                            | <ul style="list-style-type: none"> <li>For railway maintenance, we will advance the commercialization of next-generation products that contribute to safe transportation.</li> </ul>  |

### Strengthening 3 core areas

To achieve the Vision, it is essential to develop personnel who will serve as the source of the Group’s competitiveness, and a company-wide change in mindset is needed to advance organizational reform. Accordingly, we have identified a number of issues related to changes in awareness, and have formulated three measures to strengthen the foundations of our business.

|   |  |   |
|---|--|---|
| <p>Promoting open Innovation with partners who share our vision of the future</p> | <p><b>Strategic use of external resources</b></p> <ul style="list-style-type: none"> <li>• In addition to in-house development of knowhow in new domains, we will aggressively incorporate external resources.</li> <li>• Investments in open innovation.</li> </ul>             |  |
| <p>Creating a motivating and pioneering culture</p>                               | <p><b>Reforming into an HR system that encourages a challenging spirit</b></p> <ul style="list-style-type: none"> <li>• Adopt an HR evaluation system that rewards challenges towards aspiration to reform into a culture that embraces never-ending challenges.</li> </ul>      |  |
| <p>Solicit workplace innovation</p>   | <p><b>Promote future-oriented improvement activities</b></p> <ul style="list-style-type: none"> <li>• Expand on Improvement activities as an opportunity for personnel development that sees each employee embrace individual challenges and work towards innovation.</li> </ul> |  |

### Engaging in high-level management

Under “TOKYO KEIKI Vision 2030,” we aim to further enhance our corporate value and implement advanced management practices through the introduction of sustainability management, ROIC management to achieve sustainable growth, and DX (Digital Transformation).

|                                  |   |
|----------------------------------|---|
| <p>Sustainability management</p> | <ul style="list-style-type: none"> <li>• In June 2021, we established the Sustainability Committee to serve as the organization that oversees and evaluates companywide sustainability efforts. We also created the Sustainability Promotion Office to serve as corporate staff for promoting Group-wide sustainability management.</li> <li>• We will implement ESG-oriented management, including responding to the TCFD by ascertaining climate change risks and opportunities, drafting strategy, and managing efforts.</li> </ul>  |
| <p>ROIC management</p>           | <ul style="list-style-type: none"> <li>• We will adopt ROIC management to measure the earning potential and capital efficiency of each business. Adopting ROIC will enable us to simultaneously improve ROE and streamline our balance sheet.</li> <li>• Through ROIC management, we will optimize our business portfolio and achieve Sustainable growth. Striving for ROE that exceeds cost of shareholders equity we adopted WACC comparison (ROIC&gt;WACC) as a performance indicator.</li> <li>• We will establish KPI for the individual performance indicators outlined on the ROIC tree and are reforming into a corporate culture that realizes that workplace goal achievement by all employees will lead to the achievement of management goals.</li> </ul> |
| <p>DX initiatives</p>            | <ul style="list-style-type: none"> <li>• We will promote DX to ensure the effective use of internal and external data in order to enhance data-driven management and increase our ability to predict the future.</li> <li>• We will optimize workflow processes by upgrading backbone systems to increase the real-time nature of our data collection and accelerate management decisions.</li> <li>• We will improve production efficiency by engaging in smart manufacturing driven by IoT.</li> </ul>  |

[Dialogue]

# The Future of TOKYO KEIKI

## as Told by Company Presidents

~ Toward the achievement of the TOKYO KEIKI Vision 2030 ~



Consulting Business  
Division, Mitsubishi UFJ  
Research and Consulting  
Co., Ltd.

Nodoka Urata

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## Becoming a leading company supporting safety and security in seas around the world

Marine Systems Company



Executive Officer,  
Marine Systems Company President  
Yoshihiko Yoshida

In order to achieve the TOKYO KEIKI Vision 2030, in which the TOKYO KEIKI Group has changed course toward sustainability management aimed at sustainable growth and the enhancement of corporate value over the medium and long term, the Marine Systems Company has formulated a business plan that envisions a new history. Yoshihiko Yoshida, Company President, and Nodoka Urata of the Consulting Business Division of Mitsubishi UFJ Research and Consulting Co., Ltd. discussed the current status of this company, as well as its issues and future direction.

## Solving all issues related to the safety of ocean navigation and shipping

**Urata:** I have heard that the Marine Systems Company was the founding business of the TOKYO KEIKI Group and has a history of over 100 years. Mr. Yoshida, as Company President, how do you feel about this history?

**Yoshida:** I definitely feel our company is like the eldest son of the TOKYO KEIKI Group, as we have come to operate our business on a worldwide scale. In that sense, I intend for us to properly fulfill our responsibilities as the eldest son.

**Urata:** Your mainstay products in this company are gyrocompasses, for measuring the ship's heading, and automatic steering systems called autopilot, which utilize heading signals from those gyrocompasses.

**Yoshida:** Correct. These two products have an overwhelming share of the commercial shipping market, for both oceangoing ships and domestic coastal ships. Additionally, in 2022, we also released a new version of our Electronic Chart Display and Information System (ECDIS). If we compare it to a car, ECDIS is like a car navigation system. The new version achieves three concepts, which have attracted strong interest from our customers: ease of operation thanks to its LCD touch panel, proficiency training with its tutorial function, and easy onboard maintenance.

**Urata:** It's a new strategic product for your company, whose products boast a market leading share.

**Yoshida:** Although we do not have a high market share in the ECDIS field by any means, I believe this means we have room to grow, so going forward we intend to focus our efforts on this field. We intend to leverage our technical capabilities and assets to continue developing new products and expanding our services on a worldwide scale, based on the theme of "solving all issues related to the safety of ocean

navigation and shipping." We will also resolve issues related to the safety of ocean navigation and shipping with the confidence to ask, "If there were no TOKYO KEIKI products, who would protect the safety of the seas?"

## From stability to growth; strengthening our products and services

**Urata:** Regarding your company's performance, unfortunately sales and profits have both been flat for some time.

**Yoshida:** Broadly speaking, we can split the market for new shipbuilding and existing ships. Many of our company's products are performing well in the new shipbuilding market, but we have not really made inroads into the existing ship market.

**Urata:** In a sense, you have generated stable performance solely from the new shipbuilding market.

**Yoshida:** As I cannot deny that we were overly reliant on that fact, we developed our ECDIS with new functions to lead our challenge on the existing ship market.

**Urata:** Does this mean it will be a foothold for you to expand your product lineup and move from stability to growth?

**Yoshida:** Correct. We are also strengthening our services, particularly in relation to the maintenance of our products. Of course, we are expanding our dealer network, but we have also begun expanding our network of agents performing product maintenance. We are also conducting training with actual equipment at locations around the world, to ensure that agents can properly conduct maintenance. Plus we have begun sharing videos for maintenance purposes.

**Urata:** The eldest son has taken on the challenge of creating a new history.





## Revitalizing human capital, based on the keywords of “a brain is torn to shreds”

**Urata:** Your company’s management philosophy contained the keywords “thinking until your brain is torn to shreds.” I was surprised to see this slightly dynamic phrase.

**Yoshida:** Really? For our company’s management philosophy, we needed to select words that would strike a chord with all workers to ensure it was communicated to them, so we used this phrase with the idea of pondering things over and over. Personally, I prefer a management style based on direct dialogue with workers on various workplaces .

**Urata:** And as part of this dialogue, you intend to revitalize the organization of your company.

**Yoshida:** That’s right. We jokingly asked each other, “Did you think about that until your brain was torn to shreds?” and it became a kind of catchphrase within the company. Our workers are top-class human resources, so I do not want them to be content with stability, but instead to take on new challenges to achieve growth. It’s a catchphrase for this approach.

**Urata:** As it says in your company’s management philosophy, it’s the idea that if you’re going to do something, aim for the top.

**Yoshida:** Young workers in particular create a healthy sense of excitement. They even ask veteran workers, “Did you think about that until your brain was torn to shreds?” We also introduced stage gates in our development process, which is a method of collecting ideas from employees, with the employees who supplied these ideas then using them as themes for their work. They share their progress until they cross a gate, after which they set the next gate and move forward. Through such initiatives, I really feel that a positive atmosphere has developed within the company.

**Urata:** These top-class workers are moving on a common trajectory and are evaluating profitability and feasibility as

they develop new technologies. I am looking forward to the future activities of this company.

## The casting vote in global rules

**Urata:** Finally, I believe that factors such as energy conservation and carbon neutrality are issues for the future of the shipping market. How will your company address such issues?

**Yoshida:** In August 2022, we issued a press release concerning the start of joint development of marine systems with Nabtesco Corporation. By combining our course control technology with Nabtesco Corporation’s propeller control technology, we aim to reduce shipping fuel consumption, ensure safe navigation, and save labor.

**Urata:** I see. By the way, TOKYO KEIKI is currently participating in the Nippon Foundation’s MEGURI2040 Fully Autonomous Ship Program, right?

**Yoshida:** That’s correct. In the first stage of MEGURI2040, TOKYO KEIKI participated in the DFFAS consortium, the predecessor of DFFAS+. We are also involved in the second stage of MEGURI2040, and are heading a working group for the creation of technical standards.

**Urata:** What are the differences between autonomous ships and self-driving cars?

**Yoshida:** The biggest difference is that self-driving cars takes utilize the infrastructure of the road system, whereas ships determine their own course when navigating. There are also external forces at work on the seas, namely the wind and waves. Other ships are also traveling on courses that they have determined themselves, so there are various rules for shipping, which we must strictly observe.

**Urata:** These rules will also apply to autonomous ships.

**Yoshida:** That’s correct. First, we aim to practically apply this technology on domestic coastal ships, where rules in Japan apply. Later, we will apply it to oceangoing ships, where international rules managed by the International Maritime Organization (IMO) apply. European countries and the US also participate in rulemaking within the IMO, so we must make a concerted effort throughout Japan as a whole.

**Urata:** It will be great if MEGURI2040 standards are adopted.

**Yoshida:** Yes, I think so too. TOKYO KEIKI has a long history, and we will work toward the achievement of our TOKYO KEIKI Vision 2030, as a first step toward our long-term goal of casting the deciding vote for global rules.

[Dialogue]

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Consulting Business Division,  
Mitsubishi UFJ Research and Consulting Co., Ltd.  
Nodoka Urata

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## Aiming to revive the company with new products created from dialogue with customers

### Fluid Power & Control Systems Company



Executive Officer,  
Fluid Power & Control Systems Company  
President  
Akihiro Ohi

The Fluid Power & Control Systems Company is focused on activities aimed at achieving the TOKYO KEIKI Vision 2030 and reviving the company. Akihiro Ohi, Company President, and Nodoka Urata of the Consulting Business Division of Mitsubishi UFJ Research and Consulting Co., Ltd. discussed issues for the revival and future direction of the Fluid Power & Control Systems Company.





## All employees pledged to reviving the company

**Urata:** In fiscal 2022, you recorded an impairment loss in the Fluid Power & Control Systems Company. Mr. Ohi, as Company President, what are your thoughts on this point?

**Ohi:** I held briefings to explain this impairment loss at our Sano Plant and Yaita Plant production sites, and I all strongly pledged, “We can still carry on, so let’s take on the challenge of business reform without fear of failure!”

**Urata:** I’m sure everyone working in these plants felt very uneasy when they heard the term “impairment loss.”

**Ohi:** I wanted our workers to feel reenergized based on a proper understanding of the accounting process of impairment, instead of a vague negative image. I believe that, thanks to these briefings, our workers understood that we will carry on while making reforms to our plants and our business.

**Urata:** It’s good that workers’ concerns were eased.

**Ohi:** Our succession of operating losses was mainly due to the impact of various external factors, but we also have some points on which we need to reflect. In our hydraulics business, we have a business culture that has been developed over the course of our long history of more than 50 years. I feel that this culture has become somewhat rigid, causing us to lose our flexibility and agility to respond to change. We cannot deny that we did not make sufficient efforts to create a sense of crisis regarding our inability to generate profits. I felt that we were over-confident with our structure that was unable to respond immediately to change and were close to being a “boiling frog.” So, at the briefings, I compared our current profit and loss statement to an individual’s household finances, and touched on matters such as the fact that we will no longer continue with our current ways of doing things, and that we must fundamentally change the approach and actions of each and every individual. I also made a firm request to all workers to demonstrate leadership for the reforms we need to overcome this critical point.

In fact, after the briefing, we held a summer-night festival at our Sano Plant to boost morale and unity on the factory

floor. We were not able to hold this festival during the COVID-19 pandemic, and it was our first one in six years. Seeing young workers become excited and acting as the secretariat for the event, as well as many mid-level and higher employees participating with their families, gave me a sense of our workers’ compassion for their colleagues, their attachment to the workplace, etc., and I felt a positive response, to the extent that if these are our fellow workers, we cannot fail to overcome this crisis.

## Strongly promoting capital investment that is effective for profit and loss

**Urata:** What efforts have you initiated to revitalize the company as Company President?

**Ohi:** As one example, at our Sano Plant in particular, a lot of our facilities had aged, and we were using labor to compensate for the degradation in performance of such facilities. From the perspective of economic benefit from the renewal of facilities, I also felt that we were somewhat lacking in areas such as further enhancing productivity and generating new profits. Ideas for reducing the cost of investment itself are important, but it is crucial to maintain a perspective of increasing new value areas with investment. I therefore instructed our employees to consider a framework for the creation of new value when renewing facilities for our mainstay products; in other words, “capital investment that is effective for profit and loss.”

**Urata:** Does that refer to facilities that use automation and labor-saving technologies? When I visited the plant before, I had the impression that hydraulic products include many heavy cast-metal parts.

**Ohi:** As you say, in our hydraulics departments, we work with many cast-metal objects. Accordingly, we intend to focus on adopting automation and labor-saving systems as an initiative for increasing productivity while reducing safety risks. In the future, this will also be an important perspective for addressing the issue of the increasing difficulty of relying on labor. I also hope our workers, with whom we will work

together to achieve these reforms, will engage in work that creates more added value. In a recent example of facility renewal, we succeeded in evolving our previous two-shift production system to create a 24-hour full-production system by introducing additional industrial robots for intermediate processes. This has a direct impact on operating profit on the profit and loss statement, thanks to the reduction of overtime work. I would definitely like workers at our plants to maintain this perspective of investment that contributes to operating profit. Going forward, we will continue rebuilding the company through such investment activities into a strong organization capable of overcoming our competitors. To achieve this goal, I would like each and every worker to have a sense of ownership about designing their own future.

## Carving out new markets through dialogue with customers

**Urata:** The products in this company's business consist of two types of equipment: hydraulic equipment and control equipment.

**Oh:** That's correct. In particular, I believe we differ significantly from our competitors who are focused solely on hydraulic equipment regarding the fact that our business is centered on electronic equipment for use in specially-equipped vehicles such as cranes and aerial work platforms. Unlike the others, we are able to offer systems that move large pieces of machinery by controlling hydraulic pressure, and which also efficiently and safely control machines through the control of electricity and electronics. I think one notable feature of our company, and our strength, is our business model in which we utilize these systems to capture new markets by identifying and solving our customers' technical issues through dialogue with them.

**Urata:** In this company's markets, energy conservation and carbon neutrality (CN) have been raised as social issues.

**Oh:** In our mainstay markets for construction machinery and

specially-equipped vehicles, there has been a move toward electronic controls as a way of responding to regulations on exhaust gases, and the CN trend is contributing to the further acceleration of this movement. There is also increasing demand for automation, driven by the decline in labor, which we consider to be a major business opportunity for our company, based on our strength in electronic control. To respond to such market needs in a timely manner we are focusing on activities aimed at expanding our partnerships, without overly focusing on independence.

## Nurturing the seeds of future growth that will blossom as flowers

**Urata:** In TOKYO KEIKI Vision 2030, the TOKYO KEIKI Group has listed five businesses as growth drivers. What initiatives will your company be pursuing?

**Oh:** In the "Hydrogen and energy business," hydraulic products developed by our company are being used for hydraulic-drive hydrogen compressors used at hydrogen filling stations. We are also focusing on the development of products that are compatible with hydrogen, such as hydrogen compressors themselves and peripheral equipment, as we anticipate the further expansion of the hydrogen business. Ultimately, we intend to contribute to enhancing added value in the hydrogen filling station business by integrating our efforts with those of company-wide projects.

**Urata:** So you are implementing quite specific measures. If the presence of the TOKYO KEIKI Group increases in such state-of-the-art technical domains, it will act as the seeds of growth in various ways.

**Oh:** After experiencing this impairment loss, the Fluid Power & Control Systems Company has embarked on the next stage in which we will nurture the seeds of new growth created out of dialogue with customers and original technology. Dawn always follows darkness, and we will continue working to meet the expectations of our stakeholders.

