

SHAPING A BETTER FUTURE

The environment surrounding the JTEKT Group is changing at an ever-increasing rate. Despite this, not only has JTEKT been strengthening its competitiveness in the four existing businesses, it is challenging itself in new areas and, in FY2017, reached the milestone of being able to announce the development of a high heat resistant lithium ion capacitor. Moving forward, we will work even more actively to transform change into opportunity.

JTEKT Corporation Company President **Tetsuo Agata**



The Future JTEKT Aims For

JTEKT comprises of Koyo Seiko, founded in 1921, and Toyoda Machine Works, founded in 1941. These two companies merged 12 years ago to form a young company with rich history. In order for our company to survive the next ten, twenty years, the JTEKT group must use its strengths as the driving power to solve the issues that society faces in order to contribute to the advancement of society and grow further itself at the same time.

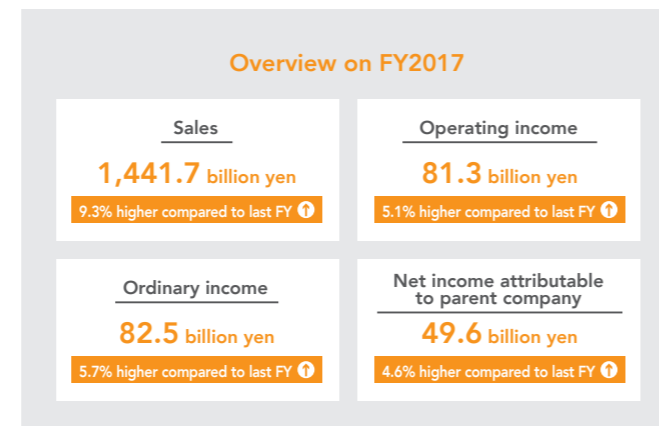
The planet faces a number of major issues, such as environmental problems typified by global warming, depletion of energy resources and the securing of water and food in line with economic advancement and population growth in emerging countries. Moreover, if we focus on Japan specifically, in addition to environmental and energy-related issues, we also face the "2025 Problem" whereby one-third of Japan's citizens will be 65 years or older by the year 2025.

The environment surrounding JTEKT is changing significantly, but it is important that we convert such change into opportunity. I believe JTEKT must aim for a future in which we continuously contribute to solving these problems through businesses of a nature only we can offer, contributing to society and, at the same time, achieving sustainable growth of our company.

Reflecting upon FY2017

FY2017 could also be considered a year in which our growth plateaued temporarily due to the significant burden of investment in order to shift to rack assist type electric power steering (EPS) in our steering business. From the second half

of FY2017, the commotion caused by this launch began to gradually dissipate and, helped by a favorable exchange rate, we ended the term with net sales of 1 trillion 441.1 billion yen, and an operating income of 81.3 billion yen. These results were +9.3% and +5.1% higher than FY2016 respectively, meaning we succeeded in increasing both profit and income.



Meanwhile, FY2017 was also a year in which we challenged ourselves to make various reforms to strengthened competitiveness for our businesses as preparation for realizing the future for which we are aiming.

In our Machine Tools and Mechatronics business, not only did we renew equipment at Kariya Plant, which is our main production base for this business, but we also challenged ourselves on a company-wide level to implement reforms to expel the "old-way" of our business management. For example, in our sales division, rather than merely receiving requests for quotation from customers, we established and

promoted a new process of communication. This process allows concerned members assess what kind of materials are being machined in what way and what sort of issues exist therein. This helps us to clarify customer requests and realize how we can contribute by leveraging JTEKT's technologies. In our Bearing business, we challenged ourselves to create unmanned operation of mass production lines in order to raise plant productivity and strengthen our cost competitiveness. We are still mid-way through the process, but now clearly understand the challenges we must overcome to accomplish this.

In regards to our Driveline business, we challenged ourselves to lower cost and reduce weight by integrating ITCC, JTEKT's Only One product, with a differential unit. We will continue these efforts this financial year to further contribute to improved safety and energy-saving performance of automobiles.

In our Steering business, we incorporated Fuji Kiko as a wholly-owned subsidiary to build a framework in which we could strategically supply not only steering systems, but also the core component that is the steering column. Moreover, with consideration to the spread of ADAS and autonomous driving, we established JTEKT IT Center Akita Corporation in Akita prefecture to handle the upstream development of software. We anticipate this will be the foundation for us continuing to secure excellent professionals in the future.

Even in terms of expanding our global business foundation, we acquired Indian company, Sona Koyo Steering Systems (currently JTEKT India LTD.) as a wholly-owned subsidiary, constructed an operating base in Morocco and so forth. These efforts paved the way for growth on a global basis and we must continue to leverage these business foundations to

the maximum extent possible.

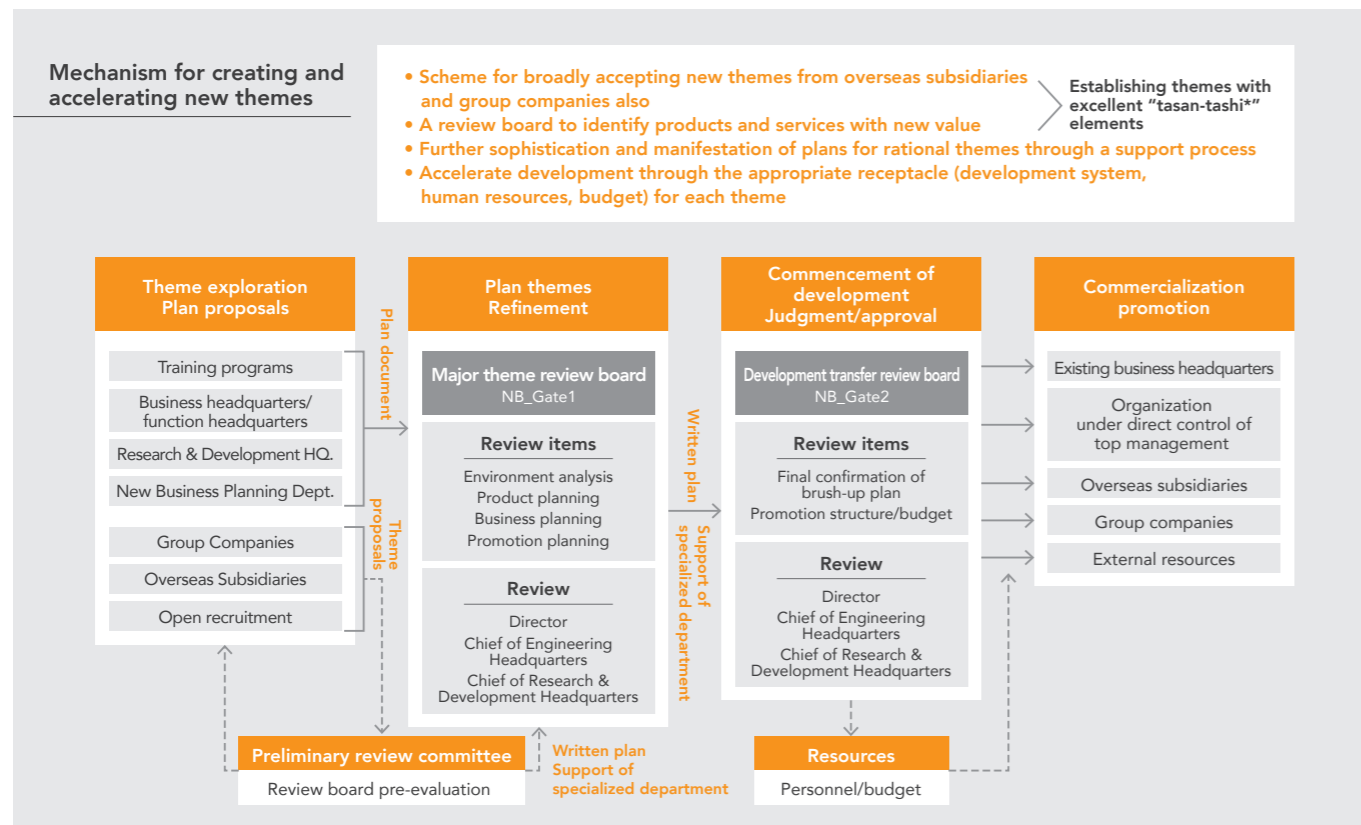
FY2017 was also a fulfilling year in terms of new businesses. Continuing on from our announcement of a power assist suit in FY2016, FY2017 was the year we announced our high heat resistant lithium ion capacitor as a new business.

JTEKT's lithium ion capacitor is a unique technology able to withstand ambient temperatures ranging from -40°C to 85°C and can even be used in environments up to 105°C depending on voltage restrictions. This technology could, for example, serve as backup power in electric vehicles, enabling a car to stop safely even if the main power fails. Hybrid vehicles have an energy regeneration function, however with lithium-ion batteries, the instantaneous collection of energy is difficult, and currently some energy is being discarded. JTEKT's high heat resistant lithium ion capacitor, although having a small capacity, is capable of instantaneous collection and output of energy, therefore by utilizing a combination of a cell/battery and lithium-ion capacitor, and their respective strengths and shortfalls, a more energy-efficient system could be achieved. Due to these features, we are currently receiving enquiries concerning this product from a variety of customers, not only in the automotive industry, but also rail, and other industrial device related industries.

Toward FY2018

FY2018 will be a year where we make headway in breaking away from our current plateauing state and get back on track to growth. A degree of obscurity regarding the business climate still exists, including the impact of protectionist policies on world trade and currency fluctuation caused by geopolitical risks affecting Japan. We must maintain a strong

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*Tasan-tashi is literally translated as "many births/many deaths" but in an industrial context means "produce many business ideas while being braced for many failures"

foothold despite this and continue steadily paving the way to our future, with the goal of increasing sales to 1.5 trillion yen and operating income to 87 billion yen.

I have high expectations that we will rise to further challenges particularly in our existing four businesses in order to achieve this goal.

In the Steering business, naturally we are actively working towards complete launch of rack parallel type EPS production, but at the same time we are also addressing the demand to shift to EPS for SUVs and light commercial vehicles. Meanwhile, we need to commoditize the column-type EPS that was mainstream up until now at the same time as achieving drastic cost reduction. To achieve this, we expect a shift to the in-house manufacturing of major parts on a global scale. In our Driveline business, we are continuing to push ahead with integration of our differential unit at the same time as challenging ourselves to realize automatic production of the CVJ (Constant Velocity Joint) being commoditized. At the same time, it is perceivable that the upcoming age of electric vehicles may change the way we use 4WD. How JTEKT attempts to convert this change into growth is also largely dependent on design.

In our Bearing business, JTEKT members will continue the challenge to achieve unmanned operation of mass production lines. At the same time, in our bearing business for

automobiles, I anticipate even further strengthening of front-loading activities for our customers.

Members of our Machine Tools and Mechatronics business will challenge themselves to forge relationships with customers through face-to-face interaction. I want to see JTEKT employees building solid relationships with customers on all levels as well as construct a sales system of interaction on a company level on into the next generation and the generation after that. At the same time, I'd like to see members of our design division go to our customers more and speak directly with them in order to identify the true value that JTEKT should be providing.

Strengthening of "Building Value", "Building Excellent Products," and "Building Professionals" in order to achieve sustainable growth

In order for JTEKT to continue being trusted by society through solving social issues and realize sustainable growth, we must continue to offer No.1 & Only One products and services. If we become satisfied with the current state of affairs, just as though we were standing on a descending escalator, we will immediately be overtaken by other companies and no longer be able to contribute to society.

The pillars essential to JTEKT continuing No.1 & Only One

activities are "Building Value", "Building Excellent Products," and "Building Professionals."

"Building Value" is about further pairing of the "seeds" unique to JTEKT and the "needs" of the world. In FY2017, the lithium ion capacitor contributing to safety and energy-saving was conceived as a result of such pairing and, in addition, we completed the formation of a system incorporating the continuous gathering of themes for new businesses, evaluation and promotion.

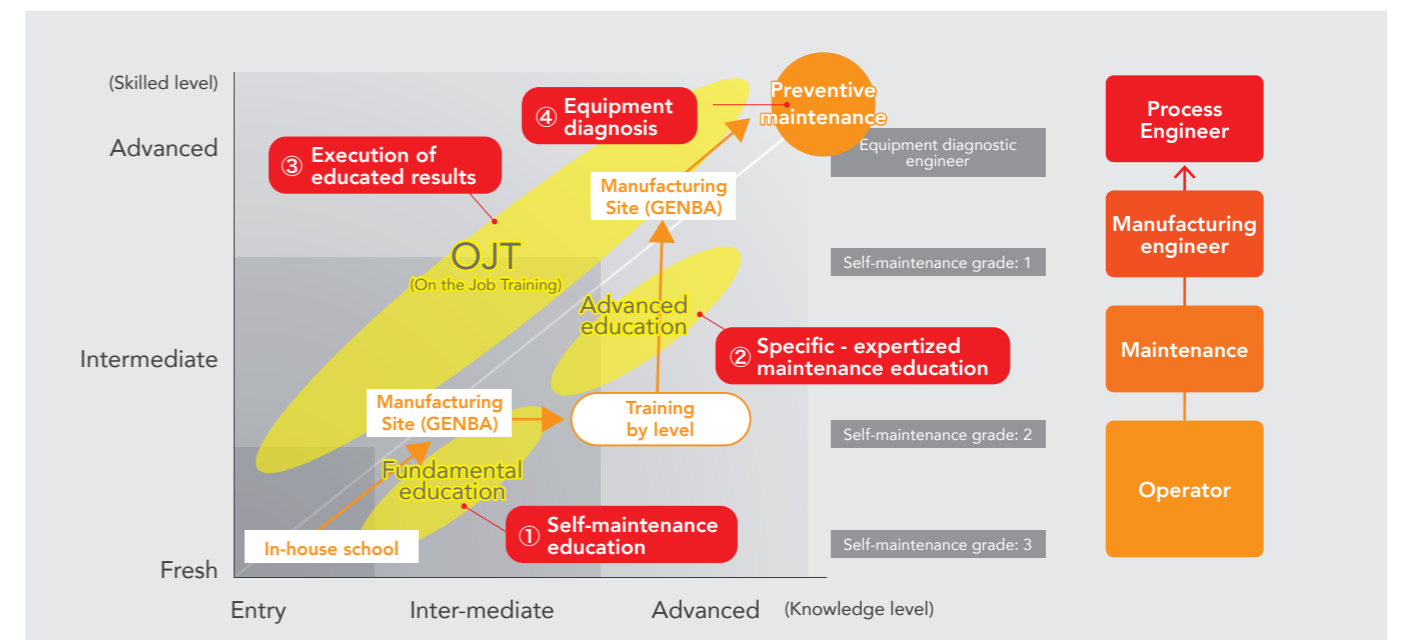
Moreover, there is a need to never be satisfied by the current state of affairs in terms of not only new businesses, but also existing businesses, recognize customers' issues with greater clarity and offer value. In our B to B world, there are deeply complicated needs that customers are unable to explain in simple terms. We need to properly identify such needs, then think of which of our technologies we can offer as a solution. In our Bearing and Machine Tools & Mechatronics businesses, a challenge theme for this year is front-loading activities which aim at the proper appraisal of these needs.

In terms of "Building Excellent Products", with the 2025 Problem looming on the horizon, in order to firmly keep monozukuri that astounds the world in Japan, JTEKT has engaged in activities aimed at the sophistication of our operators' working styles. By effectively utilizing robots, there is no need for operators to constantly be present on the production line. These operators can instead spend their time teaching robots, making improvements and engaging in maintenance activities. Maintenance workers can shift to manufacturing engineering, manufacturing engineers can shift to process engineering, and process engineers can shift to element development and advanced development. This would make for an overall shift to high-level work and, ultimately giving us the ability to secure personnel relatively easy even amidst a reduced labor force. Additionally,

in our push for automation, it is essential that we maximize our own knowledge and efficiently utilize robots in order to realize automation. For example, we must draw out our knowledge to the maximum extent and establish the on-hand supply and assembly of parts on our current production lines then, after this, incorporate robots. This will enable us to install robots of the minimal required size. Currently, at our Steering businesses' mother plant, Nara Plant, five robots have been installed on the steering assembly and machining line and are in the process of verification. These have achieved around 70 to 80% effectiveness compared to our original estimates, however we will continue efforts to reach 100% effectiveness.

We also need to challenge ourselves in terms of Building Value, Building Excellent Products and Building Professionals. For example, as part of achieving a higher level of Building Excellent Products on the surmise of smart robot installation, we need to secure and nurture professionals who can properly use robots. This fiscal year, JTEKT's Technical Training Center will continue offering the conventional skill training but also plan on revising the curriculum to incorporate methods for the effective utilization of robots.

Moreover, we will challenge ourselves in the area of Building Professionals through new businesses. As part of training candidates for next-generation top executives of our company, we are producing themes for new business. While we use the term "training" we will adopt any promising themes and assign trainees the task of nurturing the idea into a viable commercial business. The responsibility is great, but by spinning off after a certain extent of progress has been achieved and enabling greater fine-tuned adjustment, we believe we can nurture professionals by supporting them as a company at the same time as enabling them to tap into their strengths.



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Sustainability for JTEKT

Nowadays, society on the whole tends to place importance on sustainable growth - a fact which is evident by the widespread acceptance of SDGs and ESG investment in the global community. For JTEKT to secure sustainability and realize long-term growth, we must sincerely address society's demands and forge relationships of trust with all stakeholders. Amidst such circumstances, the four issues that JTEKT believes we must place particular importance on are coexistence with the environment, effective governance and risk management, development of professionals who "think and act" and promotion of diversity.

Coexistence with the environment

In FY2016, JTEKT established Environmental Challenge 2050, which expresses our goal of minimizing environmental burden and maximizing environmental value across the entire JTEKT Group. Moreover, as part of efforts to achieve our targets, we established Environmental Action Plan 2020, and have set milestones for promoting initiatives aimed at reducing CO2 and waste emissions, as well as the effective utilization of resources.

In order to achieve our 2020 milestone, we are taking the approach of not only focusing on our products, but also ensuring more effective ways of making products.

In terms of the product-centric approach, JTEKT's true task is the creation of environmentally-friendly products, and expanding this directly leads to reduction of environmental burden. For example, fuel consumption can be reduced by 2 to 3% simply by switching from hydraulic to electric power steering. Through pursuing tribology engineering in our Bearing business also, we have led the way in development of low friction torque bearings. Low friction torque means our customers' machines don't need as much force to rotate, which helps to improve energy efficiency.

Moving forward, in order to minimize environmental burden from a product-centric approach, we believe focusing on the expansion of vehicle types compatible with EPS, the further pursuit of tribology engineering and so on will be effective.

Expansion of vehicle types compatible with EPS

JTEKT will further increase the output of our RP-EPS systems, which are being adopted in comparatively large vehicles, and focus on promoting a shift away from hydraulic steering. In order to improve output, there is a need to increase the output of the power sources also. Here, our high heat resistance lithium ion capacitor announced in 2017 plays an active role.

Further pursuit of tribology engineering

In order to pursue tribology engineering and further reduce environmental burden, we must ramp up our initiatives related to fluid control technology aimed at making lubricant film thinner. By further strengthening this field, arguably one of JTEKT's strengths, we aim to improve energy efficiency.

On the point of improving the efficiency of how we make products, manufacturing method innovation and supply chain optimization are two issues to be addressed.

Insofar as manufacturing method innovation, we are considering a shift to high energy-efficiency manufacturing techniques and process-saving. In regards to changes to process techniques, currently the heat treatment process for bearings uses a heat treatment furnace, however, if this can be changed to induction, which can be completed in a relatively short period of time, it would be possible to drastically reduce energy consumption. Meanwhile, process-saving is the most effective way of reducing environmental burden. However, this is much more challenging than process change, as we must revise all prior common knowledge and rethink how processes should be from scratch.

Even in the supply chain, in order to continue the same business activities we have to date but in less steps and using less time and energy, we must review the entire supply chain and think boldly about the changes we can make.

Either way, we need to pursue innovative initiatives in addition to ongoing improvement. In order to achieve this, we believe it is important to continue being a company that constantly doubts the conventional way of working.

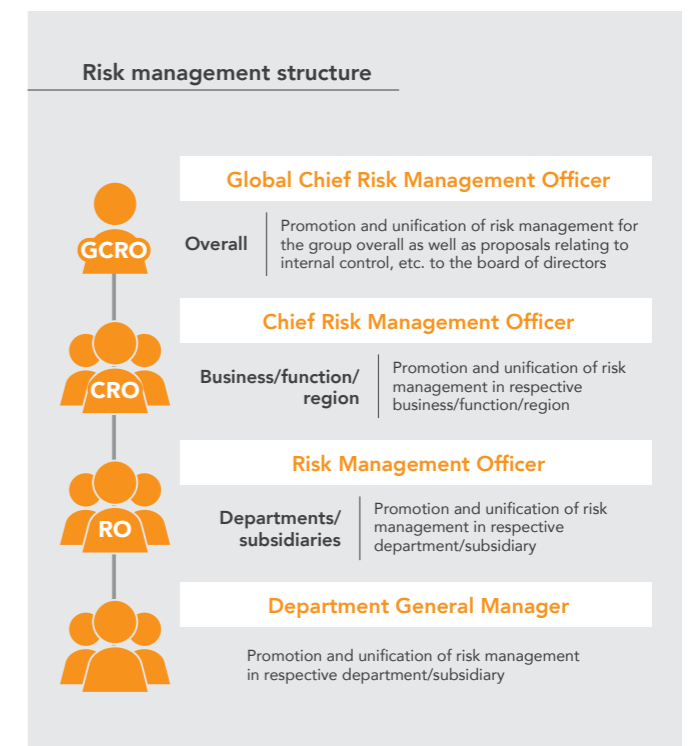
Effective governance and Risk management

As I also mentioned in the FY2016 Integrated Report, JTEKT has a system whereby its management is monitored by external parties through summoning outside directors and auditors. Effectiveness is a crucial part of governance and JTEKT has poured considerable effort into accurate appraisal of our management status and raising of issues by our outside directors and auditors in the form of Audit & Supervisory Board briefings. Furthermore, auditors cover not only Japan, but also our overseas bases, therefore provide us with many proposals and much advice each month in order to achieve a higher standard of management. The proposals and issues raised, etc. by these outside parties are monitored in monthly progress reports until they are finalized or solved by the director in charge, which ensures a more solid mechanism.

From FY2018, new auditors took the post meaning our management will be examined by fresh eyes, hence I anticipate a further improvement in management quality.

From the perspective of risk management, we have entered an age where the existence of the entire company could be endangered due to risk in one specific business in one specific region. As such, JTEKT has formed a risk management system centered on a Global CRO (Chief Risk Management Officer) in order to respond swiftly to a situation when necessary. We will continue enriching the content of this

system so that functions, businesses and regions may unite and enable comprehensive appraisal and response toward risk.



Development of professionals who think and act

In order for JTEKT to secure sustainability and realize long-term growth, it is essential that we develop professionals who "think and act" for themselves.

This can only be achieved with efforts by the employees themselves, but, as a company, in order to engage in this initiative persuasively, I think we need to offer support, build mechanisms and foster the right culture to ensure mutual happiness.

To this end, we place emphasis on organization of a training structure, strengthening of policy management and personnel training that utilize global posts.

Organization of a training structure

When I was appointed president, our training system resembled a Buddhist temple, where there was a master, and beneath him were young employees who were nurtured through on-the-job training (OJT).

While this style of training is indeed important, in order to nurture professionals with the ability to "think and act", there is a need to also practice Off-JT as the basis.

Here, to strengthen our problem-solving concept, we incorporate problem-solving training and have those in positions of responsibility (supervisors, etc.) engage in training to acquire

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an awareness that they must always, when faced with issues, consider the points of "What is the cause of this problem?", "Where is the root cause of this problem?", "How should I solve this problem?" and "How should the solution be incorporated in the mechanism?" For managers and above, we also provide training to teach that it is important to not only identify the root cause of the problem that has occurred, but also practice "back-casting" from the gap between how the situation should be and the reality in order to imagine what issues could exist.

Problem-solving training itself is beginning to take root, however as a training system, I believe we have only just reached half-way. As an example of future initiatives, we are promoting JTEKT Business Practice as a guide to JTEKT's basic approach to work.

Strengthening of policy management

In order to effectively leverage the abilities of all employees and be a highly-productive organization, we must all be on the same page as One JTEKT.

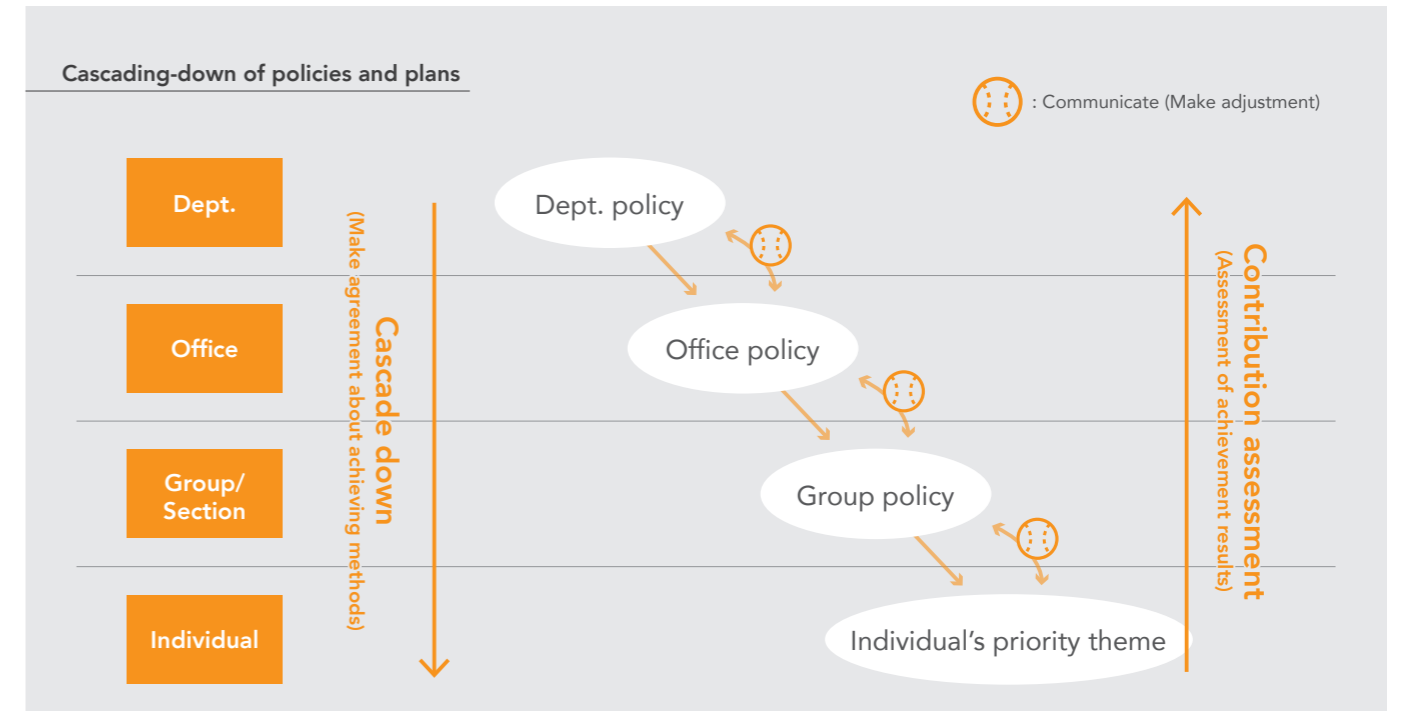
At JTEKT, our management is based on a mid-term management plan, however, when implementing this, while the activity plans of departments, offices, groups and individuals are being cascaded down, not only the activities expected from high-level policy, but also what can be done for high-level policy is divided into themes and thrown back and forth between superiors and subordinates in a "catchball" process until the concerned parties agree and understand the

content, then play catchball again with the outcome until further agreement and understanding is obtained. Through this process, we believe JTEKT Group management should draw out the autonomous actions of each and every employee and it is the ideal we aim for.

For this mechanism to function, the premise is that firm department policies exist and I believe that it is the responsibility of management to create such a condition. As president, I am checking the policies of all departments more rigorously than last year. Our policies were insufficient in FY2017 however, I communicated that the design of department policy was extremely important for policy management, and for FY2018, every department produced extremely high quality policies. We will continue aiming for a high level in FY2018 and beyond.

Professional development utilizing global posts

As long as we are making a global footprint, we must promote globally-minded professionals. Our overseas bases are enthusiastic about this and boast many outstanding employees. So that these promising workers can gain experience as leaders and various other positions and grow as professionals while they are young, we are formulating succession plans unique to each region incorporating its specific circumstances. Moving forward, I'd like to see increased interaction between employees from different overseas bases and develop professionals with a broad perspective.



Promotion of diversity

There are only around seven more years before 2025, when Japan is said to face a situation in which one-third of its citizens are 65 or older. As such, we need to address this situation immediately.

JTEKT is already pushing forward with initiatives to improve productivity through the sophistication of operator working styles and task reforms of indirect departments, but in addition, we will focus on the promotion of diversity focusing on utilization of female and senior workers.

For example, if we increase the automation of production lines, work such as robot maintenance and programming becomes more important. This type of work can be performed by female employees and senior employees too. We are working to enrich systems so that such people have greater opportunity to contribute.

Furthermore, we are exerting efforts in relation to health so that employees can work for a long period of time. As unique initiatives, we have introduced a walking campaign for all

employees and a 2-night, 3-day diet/exercise program targeting employees susceptible to obesity. For the diet/exercise program, there is one health consultant for every 4 or 5 participants. Participating employees learn appropriate dietary intake and exercise habits. Many lose around 4 to 5 kilograms within six months of joining the program, and even I am surprised by the positive result.

The environment surrounding us is changing at an ever-increasing rate. Amidst this, we will constantly possess a healthy sense of danger and further strengthen initiatives aimed at a desirable future. I humbly ask that our stakeholders continue to provide us with their invaluable support and advice.

