SHAPING A BETTER FUTURE Special Feature

New Businesses

In anticipation of social trends and environmental changes, we are formulating new business strategies that will be the pillars of JTEKT's future and the Group's sustainable growth as we collaborate with relevant departments within and outside the company in an effort to create new businesses.

In April 2017, we launched the New Business Planning Department as an organization under the direct control of the president in order to respond to global social issues and needs, including the SDGs*1, by taking on the challenge of developing new products and businesses and creating new value.

Basic Concept and Aim of New Businesses

At present, with importance placed on responses to numerous social issues, we are approaching an era of disruptive innovation (AI, IoT, digitization) and development process innovation (open innovation*2, lean startups*3, agility*4) with new players entering the market, all of which necessitate a forward-looking response. As such, we are engaged in business diversification and new product development to further strengthen management, including future business portfolio strategies, and have repeatedly discussed the direction of existing and new businesses. Among these, in terms of new businesses, we will not be limited to simply aiming for additions to our business portfolio. Rather, we want to play a role in terms of existing processes, value chain reforms, human resource development, corporate culture innovation, and the creation of a new brand image.

JTEKT's basic concept regarding new businesses involves resolving social issues and meeting needs, and when necessary, collaborate with ideas from outside the company as we dive deeper into core technologies derived internally to differentiate ourselves from other companies.

In terms of engaging in new businesses, it is crucial to have the mind-set and motivation to take on challenges in a highly uncertain, unconnected, and unknown industry while utilizing the strength of a small group structure as we develop human resources that have broad and lofty perspectives by engaging in businesses that lay outside the normal framework. Additionally, while creating a structure or an organization for continuously generating business themes, we will amass numerous new business ideas from affiliated companies and Group departments in Japan and overseas, training curriculum, and other sources, narrow these down to the most optimal, and then quickly attempt to expand business.

JTEKT's Ideal

Contribution to society, JTEKT and the JTEKT's Group's continuous growth, human resource development

Creation (differentiation from other companies and originality) of new value (products)

PDCA scheme: Planning, development, preparation for manufacturing, manufacturing, branding, promotion, monetization, sales, after-sales service, marketing

- 1 Speed

- Quality of value provided
- 3 Own growth
- Passion

Matching

- 6 Not fearing failure (Continuing to take on challenges)

Social issues (needs)

Contribution to the SDGs

- Global environmental issues (Global warming, natural disasters, pollution,
- Depletion of energy
- Water and food issues
- Declining birthrate and an aging population (Shift to a super-aged society (healthcare, welfare, QOL*5), decline in the working population, work style reform, etc.)
- Urbanization and extreme depopulation
- Economic instability and trade imbalances

JTEKT's strengths (internal seeds)

Key core technologies

- Tribology (friction and lubrication)*6
- Precision processing
- Control Materials

Monozukuri technologies

Toyota Group network Globally expanding network

Open innovation (external seeds)

Alliances with other companies

- Technologies not possessed by JTEKT
- Innovation technologies in the world Connections in new domains
- Linkages among industry, government, and
- Utilization of consulting companies
- · Tie-ups with ventures

New business models

1. Sustainable Development Goals: International objective composed of 17 goals and 169 targets for realizing a sustainable world, as described in the 2030 Agenda for Sustainable Development adopted at the United Nations Summit in September 2015

- 2. Consolidation of knowledge and technology across organizational frameworks when developing new technologies, new products, and new business models
- 3. Innovative products that thoroughly eliminate waste and focus on efficiency
- 4. Development method that minimizes risk by adopting and repeating short development period units called iterations
- 5. Quality of Life: Refers to both quality of human life and lifestyle 6. Technical areas involving friction, wear, lubrication, etc., between objects 7. Drive parts and mechanisms

Specific Examples of New Businesses

Power Assist Suit



In response to social issues such as a declining birthrate and aging population, labor shortages, and an increased number of work-related accidents, we leveraged our strengths in assist technology as well as our insight as a manufacturer with in-house manufacturing shops to launch the sales (August 2018) of this



Power Assist Suits

product developed to reduce burdens placed on the lower back of workers in the field, save energy, create safer workplaces, and enable a greater variety of human resources to actively take part in physical labor.

Further, in response to varying labor needs, in June 2019 we added a model providing mid-range power output with an approximately 50% reduction in weight. Going forward, we will continue to incorporate customer feedback into the products we bring to market and provide additional proposals to resolve individual issues.

Independent Propulsion Walker

Electric Assist & Training "Walker"

As the graying of society progresses, and social welfare costs and caregiver shortages are becoming serious problems, there is a need for methods by which to extend healthy life expectancy.

This product provides walking support for those in need of assistance who have difficulty walking on their own. One of its special



Electric Assist & Training "Walker"

features is a training function intended to enable independent movement. Based on the pole walking theory, swinging the arms when walking provides good posture and vigorous aerobic exercise. Additionally, an electric assist function provides safety and peace of mind, while service data is utilized to promote continued usage, enabling the user to enjoy walking. JTEKT is developing this product with the goal of launching sales in spring 2020.

Manufacturing Industry Cloud Matching Service



Drawing on our accumulated manufacturing and processing technologies and procurement know-how, in April 2019 we launched testing of a manufacturing industry order matching cloud service using a website to meet market needs for higher-quality, lower-cost, and more rapid parts procurement. When users register blueprints and processing requirements on the website, they are able to compare suppliers and receive estimates from among candidate fulfillment companies, then place orders online and receive delivery at a later date. This is a one-stop service that covers all steps, from requests for estimates to payments.



High Heat-Resistant Lithium-Ion Capacitors

JTEKT developed the world's first lithium-ion capacitor⁷⁸ supporting a wide temperature range, and in September 2017 launched the BR Electrical Power Storage Device Business Department. Since then, we have been developing power supply solutions in response to various power supply needs appreciated by society and customers through applications in the automotive field which are slated to launch in 2022 as we move forward with business negotiations, and applications in the industrial field starting with full-scale mass production commencing in October 2019.

8.A power storage device with increased energy density by adding lithium ions to the negative electrode material of a power storage device (capacitor) having an electric double layer of a positive electrode and a negative electrode



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