Review of Fiscal 2020

The spread of the COVID-19 pandemic utterly changed every aspect of society. This has significantly impacted the healthcare profession, Terumo's business domain. I want to express our heartfelt appreciation to and deepest respect for all of the healthcare professionals and others who are even now diligently fighting the pandemic on the front lines of medicine. Even under these extreme conditions, we have done everything in our power to ensure a stable supply of products to continuously meet global healthcare needs in accordance with our Group mission.

In first quarter of FY2020, the performance of the Cardiac and Vascular Company was the most severely impacted by the post-ponement of elective procedures resulting from the global spread of the COVID-19 pandemic. While after the second quarter the second and third waves had an impact, demand as a whole is recovering, and there are signs of a steady recovery in performance.

The General Hospital Company and Blood and Cell Technologies Company carry products used for infection prevention and COVID-19 treatment, and the increased sales of these contributed to the stability of the entire Group. While the impact of the pandemic still remains in the fourth quarter, Europe and the United States, in particular, have shown a steady recovery trend.

Looking at the full fiscal year, revenue could revert back to a year-on-year decline of 2% aided by the recovery in the Cardiac

and Vascular Company. Going into the fourth quarter, some PCI*-related products in China were affected by a price decrease caused by national bidding, and production began to adjust to an appropriate level of accumulated inventory to secure a stable supply of COVID-19 pandemic products worldwide. This put a strain on the adjusted operating profit, which declined 7% year-on-year over the full fiscal year but recovered to a 4% decline when the effect of exchange rates was excluded. Profit for the year attributable to owners of the parent declined 9%, which has also recovered by a single-digit percentage.

* PCI: Percutaneous coronary intervention

Management Indicators under Mid- to Long-term Strategy

Growth	Achieve revenue growth that outpaces market growth (high-single-digit revenue growth)
Profitability	Realize profit*1 growth that outpaces revenue growth
Efficiency	Maintain an adjusted ROE*2 of 10% or more

Assumed exchange rate: USD= \pm 105, EUR= \pm 115

- *1 Operating profit excluding amortization of intangible assets and one-time profits and expenses derived from acquisitions
- *2 ROE excluding exchange differences on translation of foreign operations pertaining to assets associated with acquisitions included in total net assets

Financial Management during the COVID-19 Pandemic

In order to maintain profitability and the ability to respond to change even in the severe business environment of the COVID-19 pandemic, we have shared our crisis management mode with the top accounting management of our overseas subsidiaries, and have implemented measures such as working to understand the status of cash flow through a short-cycle rolling forecast and a review of unnecessary expenditures with the goal of securing profits. We have adopted a proactive operational system to monitor the status of highly urgent funds, accounts receivable and inventory on a weekly basis, and have taken flexible measures such as lending funds within the group under the leadership of the head office.

Regarding the financial condition of the entire company, in

ordinary times cash on hand is estimated to be two to three months of monthly sales. In the near term, we have prepared for emergencies such as the current pandemic and natural disasters by establishing a credit line with financial institutions, while also securing adequate liquidity on hand of approximately ¥200 billion, or four months of monthly sales through funding. In the future, we intend to utilize these funds on hand for investment in future growth, depending on circumstances.

Terumo will also be looking to capitalize on promising investment targets, such as capital investment and M&A activities with the potential to contribute to higher profits over the mid- to long-term. For this purpose, the Investment Committee, which is comprised of managers from specialized fields of production, 100th Anniversary and History of Value Creation

development, planning and finance, sets hurdle rates that are based on weighted average cost of capital and then adjusted to reflect risks from uncertainty with regard to specific investment targets. These hurdle rates are reviewed on an annual

basis. With the hurdle rate, we evaluate investments through

the use of net present value and the internal rate of return out

of consideration for business strategies, the Mid- to Long-term Strategy, and risk management from a Groupwide optimization perspective. Moreover, we continue to control capital investments companywide by revising quantity estimates, timing, and priorities, while implementing those capital investments required for future growth.

Foundation Supporting Value Creation

Toward FY2021

While the third and fourth waves and mutations of the COVID-19 pandemic are beginning to run rampant, vaccines are becoming more widespread, although the pace of vaccination differs for each country and region. Under these circumstances, we set targets in the fiscal 2021 Performance Forecasts with the assumption that demand continues to recover due to a certain percentage of vaccinations in the first half of the year, and that there will be a return to growth in the second half. Revenue and profit are projected to reach their respective record highs.

In the healthcare market, which was affected by the COVID-19 pandemic, pressures on pricing have multiplied due to a deterioration of healthcare financing. In global society after the COVID-19 pandemic, Terumo will have to work on improving profits in order to bring its competitive strength to continued

mid- to long-term growth. We will continue to incorporate this as part of our key strategies for the next Mid- to Long-term Strategy, which we intend to announce in fiscal 2021.

Fiscal 2021 Performance Forecast	ts	(¥ million)
Revenue	6,850 (11.6%)	
Adjusted Operating Profit	1,370 (18.2%)	
Operating profit	1,200 (22.0%)	
Profit for the year attributable to owners of the parent	920 (19.1%)	

Note: Figures in parentheses () are percentage change from previous year.

Considerations for Financial Management after the Global COVID-19 Pandemic

Strategy

Under the current five-year Mid- to Long-term Strategy which ends in fiscal 2021, we set management targets for growth, profitability and efficiency, and are working toward each of those targets. For shareholder returns, we believe that it's of the upmost importance to continue making disciplined investments, including development expenditures for sustainable growth, to enhance growth and profits, and to improve corporate value while maintaining consistency with the strategies. In addition, we are emphasizing a stable increase in dividends. If the conditions are met, we will consider the flexible acquisition of treasury shares. Through these steps, we will implement an appropriate and balanced cash allocation.

The funds thus allocated provide a foundation for operating

cash flow, but where necessary we will consider the balance between capital efficiency and financial soundness, combining borrowing from financial institutions, corporate bonds and other means to conduct optimal fund raising.

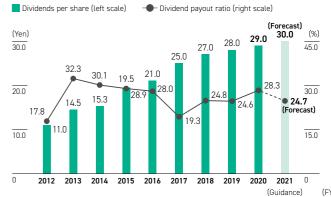
At the same time, we will pursue improved capital efficiency by developing a system by which the head office controls surplus funds within the Group via the implementation of Group cash management systems involving entities in Europe, the Americas, China, and other Asia regions. By consolidating management of the Group's cash flows within the head office, we will be able to adjust the balances of foreign currency-denominated assets and liabilities at individual bases and to mitigate foreign exchange rate fluctuation risks.

Shareholder Returns

Terumo adheres to a basic dividend policy of steadily increasing dividend payments, targeting a medium- to long-term dividend payout ratio of 30%. For fiscal 2020, we planned for dividends per share of ¥28, the same as in fiscal 2019, due to the spread of COVID-19. However, we were able to achieve an 11th consecutive year of higher dividends, as we decided to pay ¥29 per share, an increase of ¥1 per share over the previous fiscal year, given that we had begun to see signs of performance recovering at the end of the fiscal year.

We will ensure future growth and bolster corporate value to fully respond to the expectations of our shareholders and all other stakeholders. Going forward, I will continue to fulfill my responsibilities as CAFO.

Dividends per Share and Dividend Payout Ratio (As of March 31, 2021)



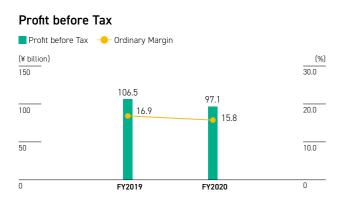
Notes: 1. Full-year dividend amounts have been adjusted to represent the impacts of a prior stock split.

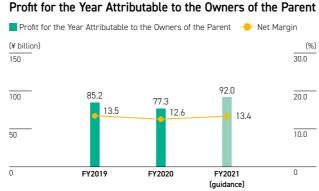
2. Figures for fiscal 2016 and prior are based on J-GAAP standards.

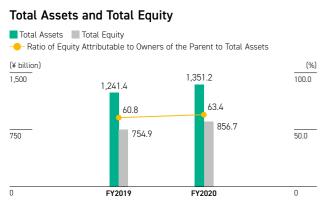
Financial and Non-financial Highlights





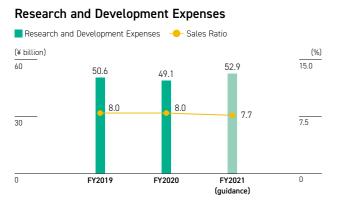


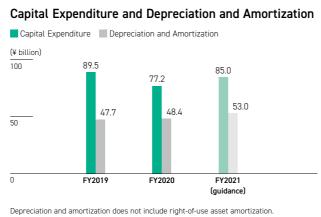






Free Cash Flow

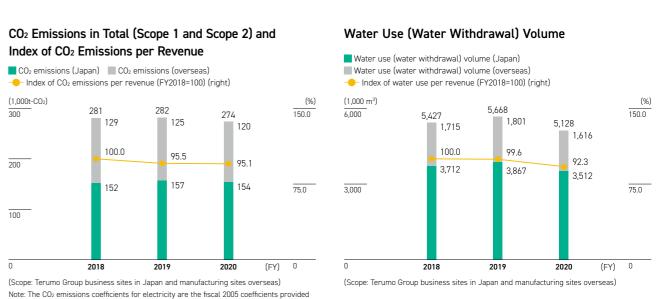


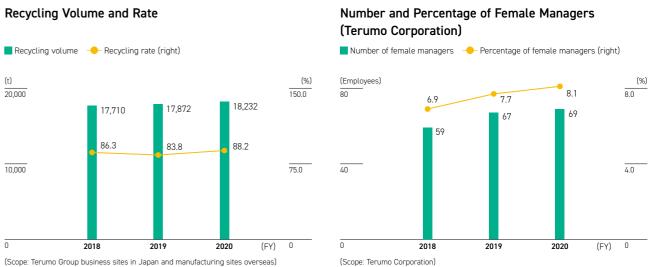


2018 Number and Percentage of Male Associates Taking Childcare Leave (Terumo Corporation) Number of male associates taking childcare leave --- Percentage of male associates taking childcare leave (right) (Employees) 100.0 53.9 50.0

by electric power providers.

100





(FY) 0

Strategy 100th Anniversary and History of Value Creation Strategy Foundation Supporting Value Creation Data Section

At a Glance

Terumo brings solutions of value to medical settings through three companies and seven businesses.

Terumo contributes to society through healthcare by doing business through three companies with seven divisions that operate in over 160 countries and regions around the world, providing patients, a variety of medical settings, and the pharmaceutical industry with over 50,000 products and services.

The Terumo mission includes not only bringing patients more effective and less burdensome treatments, but also providing medical professionals with safety and peace of mind so they can focus on giving care and supporting the research that will create future healthcare.

We face and work to understand the problems of medical settings so we can provide new value.

Cardiac and Vascular Company

Main Products

TIS Division (Terumo Interventional Systems)

Angiographic guidewires, angiographic catheters, introducer sheaths, vascular closure devices, PTCA balloon catheters, drug-eluting stents (DES), peripheral stents, intravascular ultrasound (IVUS) systems, and other products

Neurovascular Division (MicroVention)

Hydrogel embolic coils, flow diverters, aspiration catheters, clot retriever devices, and other products

Cardiovascular Division (Terumo Cardiovascular)

Hollow fiber oxygenators with integrated arterial filter, heart-lung machines, and other products

Vascular Graft Division (Terumo Aortic)

Surgical grafts, stent grafts



Outcome

Realizing minimally invasive treatments in vascular intervention and cardiac surgery

General Hospital Company

Main Products

Hospital Systems Division

Infusion pumps, syringe pumps, infusion sets, syringes, IV solutions, analgesics, nutrients, sprayable adhesion barrier gels, blood glucose monitoring systems, continuous glucose monitoring systems, blood pressure monitors, thermometers, and other products

Alliance Division

Contract manufacturing of pre-filled syringes, products for pharmaceutical companies (prefillable syringes, needles for drug kits), and other products



Outcome

Contributing to better patient care and transformation toward "yasashii" medical care for everyone involved

Blood and Cell Technologies Company

Main Products

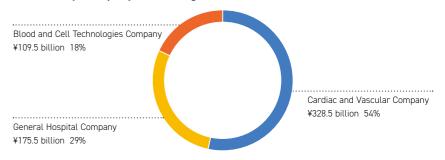
Blood bags, component collection systems, automated blood processing systems, pathogen reduction systems, centrifugal apheresis systems, cell expansion systems, and other products



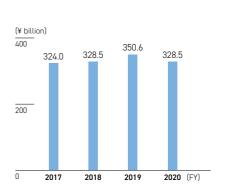
Outcome

Sustaining blood transfusions worldwide, contributing to the advancement of blood and cell treatments

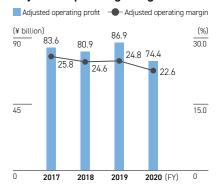
Revenue by Company/Percentage of Revenue (FY2020)



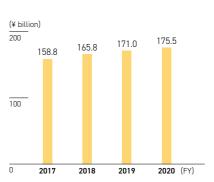
Revenue



Adjusted Operating Profit/ Adjusted Operating Margin



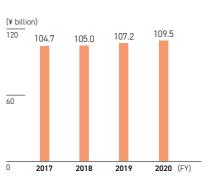
Revenue



Adjusted Operating Profit/ Adjusted Operating Margin



Revenue



Adjusted Operating Profit/ Adjusted Operating Margin



Strategies by Company

Cardiac and Vascular Company

The COVID-19 pandemic has increased attention on the healthcare provision system and healthcare finances, presenting an opportunity for us to support patients through pre- and postoperative treatments, expand our range of minimally invasive treatment options and speed up our approach to personalized and other digital health solutions. We will also bolster our operational infrastructure to ensure stable supplies and efficiency, and push forward changes including digital transformation. Together with customers, we strive to create the next standard of patient care and drive the evolutions of medicine on the front lines.



Mid- to Long-term Vision

Gain recognition from medical professionals worldwide as a leading brand in the cardiac and vascular business field

Be one of the top three players in each market we participate in Gain world-class trust from our customers through "Total Quality"

Revenue

Realize growth that drives Groupwide growth; near double-digit growth

Achieve profit growth that outpaces revenue growth; double-digit growth, maintain adjusted operating margin of 25% or above

Target

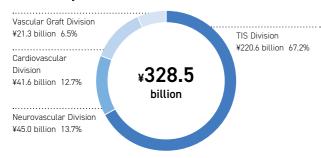
Fiscal 2020 Performance

Revenue ¥328.5 billion

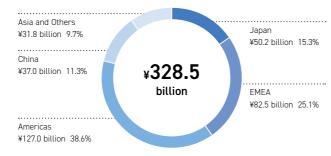
/ascular

Adjusted operating profit ¥74.4 billion

Revenue by Business



Revenue by Region



Percentages noted next to revenue for each business and region represent the percentage of total revenue

Environment

Opportunities	
Minimally invasive treatments Solid global market growth* Stronger needs for same-day discharge and shorter hospital stays More cancer patients due to the rise in life expectancy Diversified treatment options in the cerebral aneurysm field Growth of stroke market in neurovascular field following establishment of treatment evidence for thrombectomy and revisions to clinical guidelines	RE ti P ti n Tri
	Minimally invasive treatments Solid global market growth* Stronger needs for same-day discharge and shorter hospital stays More cancer patients due to the rise in life expectancy Diversified treatment options in the cerebral aneurysm field Growth of stroke market in neurovascular field following establishment of treatment evidence for thrombectomy and

Risks

- Responding to more rigorous European Medical Device Regulations (MDR)
- Preferential treatment for domestic manufacturers and distribution network reforms in China
- Tougher competition due to treatment evidence established by rival firms
- Market growth in the TIS Division field tapering off in the European and Japanese markets

Ongoing transition from surgical

due to trend toward minimally

treatment to vascular intervention

- Better performance of stent graft implantation technology and improved clinical outcomes for aortic aneurysms
- Spread of hybrid surgery*2
 Market growth due to improved treatment outcomes with extracorporeal membrane oxygenation (ECMO)
- Growing markets in emerging economies due to healthcare development and increase in lifestyle diseases resulting from more westernized lifestyles

*1 The TIS Division covers China, Southeast Asia, and Central and South America.

*2 Procedure that involves implanting a combined surgical and endovascular devices

The Neurovascular Division covers the global market, mainly Europe, the Americas, Japan, and China.

- Promote dissemination of proper product use and develop and propose new treatment solutions by providing training for medical professionals
 - Global sales networks, clinical development and regulatory affairs systems
 - Global sales networks, clinical development and regulatory affairs system
 Production systems building on local characteristics

Opportunities

Strong partnerships with key opinion leaders

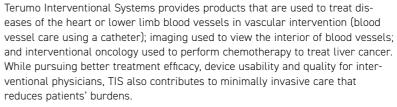
Vascular treatment

- Minimally invasive treatments that reduce the physical and economic burden placed on patients
- Comprehensive access device solutions ranging from puncture to hemostasis
- Global recognition as a leader in transradial intervention (TRI)*3 for brand reputation and quality products
- Development capabilities for a broad range of vascular treatment devices and innovative products
- Extensive lineup of innovative stent graft products, including custom-made products

Surgical treatment

- Comprehensive portfolio of products to treat aortic disease
- In the Cardiovascular Division, competitiveness, high quality, and brand power underscored by our No. 1 position in Japan, the United States, and Asia, and our No. 2 position*4 in the global market
- Product development and production capacities positioning Terumo as the sole manufacturer for in-house production of oxygenators from the fiber*5 phase

Terumo Interventional Systems Division



Neurovascular Division

MicroVention pioneers the development of catheter-based, minimally invasive, neuroendovascular technologies that provide therapeutic advantages for neuro-vascular disorders. Terumo collaborates with this U.S. based subsidiary to provide innovative solutions to treat these diseases that can be devastating for patients, specifically ischemic stroke (a type of stroke caused by a blockage of blood flow within the brain), brain aneurysms (a weak, bulging area on the wall of an artery). Particularly a wide range of access device portfolio, including catheters and guidewires contributes healthcare professionals to gain easy access to the lesion to treat as well as improve patients' quality of life.

Vascular Graft Division

Terumo Aortic is the group's vascular business, providing products including surgical grafts and stent grafts that are used by surgeons and interventional radiologists to treat patients with aortic disease, which includes thoracic and abdominal aneurysms and aortic conditions such as dissection. The company's comprehensive product portfolio helps to save the lives of many patients in more than 90 countries. Future plans include the development of products utilizing digital technology to deliver products optimized for individual patients, as Terumo Aortic continues the development of innovative and unique products to treat complex aortic pathologies.

Cardiovascular Division

Terumo Cardiovascular develops and manufactures medical devices such as Heart-lung Machines that circulate blood outside the body to replace the function of the heart and lungs that have been stopped during the open heart surgery; oxygenators which are responsible for gas exchange of the blood; ECMO systems that assist the cardiopulmonary function of patients in emergency cases; and surgical devices that support the progress of cardiac surgery performed without stopping the heart. By collaborating with the HeartSheet division which develops the world's first regenerative medicine product that is expected to be a new treatment option for patients with severe heart failure, the division contributes to the improvement of the QOL of heart disease patients with innovative technologies.









^{*3} Solutions for approaches via the radial artery

^{*4} Source: Terumo Corporation

^{*5} One of the materials used in oxygenators

Fiscal 2021 Priorities

■ Terumo Interventional Systems Division

The COVID-19 pandemic has boosted the need for minimally invasive treatment. Viewing this as an opportunity, we will push forward with providing a broad range of solutions for medical settings.

- Evolve and promote radial access, building on TRI's brand reputation and quality access devices
- Deploy a broad product portfolio in the oncology field, such as microcatheters which we have No. 1 share globally, radiation-emitting microspheres from Quirem Medical B.V., which was acquired by Terumo in fiscal 2020
- Promote digital marketing initiatives
- Expand and disseminate TLA*6 accessing and targeting the lesion smoothly.



QuiremScout microspheres for pre-therapy and QuiremSpheres for selective internal radiation therapy

Neurovascular Division

We will strive to make further progress in disseminating new products, mainly in the Americas and Japan.

- Further disseminate and promote products including WEB 17, a broader range of sizes of our WEB
 intrasaccular device which will begin sales in fiscal 2021 in the United States, the Woven EndoBridge
 intrasaccular device launched in Japan in fiscal 2020, the CASPER RX carotid stent, and the FRED
 flow diverter stent, in order to broaden treatment options.
- Rebuild our sales agent network in China to rapidly boost and stabilize sales



Intrasaccular device (rendering)

■ Vascular Graft Division

We will strengthen our global product portfolio by launching stent grafts and other new products to provide aortic treatment.

- Launch the RelayPro thoracic stent graft system in the United States and accelerate launch in other global markets
- Offer the TREO abdominal stent graft system to more hospitals and begin sales in key centers in Japan
- Offer a broader range of aortic solutions with the upcoming launch of the Thoraflex Hybrid stent graft in the United States
- Improve supply chain management to achieve a more stable, efficient supply system



Left: RelayPro thoracic stent graft Right: TREO abdominal stent graft

Cardiovascular Division

We aim to build a strong foundation for future contributions to healthcare by further promoting optimal operations for our diverse product portfolio.

 Further promote optimal operations in each region based on the production system to maintain stable supply, product development process, product cost, and global brand and positioning.



CAPIOX FX hollow fiber oxygenator with integrated arterial filter

*6 Therapeutic Lesion Access (therapeutic guide wires, support catheters, balloon catheters, etc.)

TOPICS

TRI Top Brand for Minimally Invasive Treatment throughout the Body

Vascular intervention is widely used today as a minimally invasive treatment method for treating heart and vascular diseases. Meanwhile, interventional treatment continues to improve. Terumo has actively promoted development and dissemination of minimally invasive TRI for around 30*7 years. Today, Terumo is known as the top brand of leading TRI in medical settings throughout the world.

Vascular intervention as a means for treating blood vessels around the heart is increasingly being employed throughout the body, for example in abdominal arteries and peripheral arteries in the lower limbs. Terumo focuses on developing devices facilitating the use of TRI transradial approach everywhere in the body.

The R2P*8 System Inserted Via the Wrist, for Minimally Invasive Treatment of Peripheral Artery Disease

Peripheral artery disease develops when lower limb arteries become clogged with substances like cholesterol, narrowing the arteries and impeding blood flow. In addition to numbness and pain, at the advanced stage the condition can lead to necrosis and force amputation of the affected limb. This condition is prevalent due to population aging, along with increasing instances of diabetes and lifestyle diseases. Together with drug and surgical treatment, vascular intervention is increasingly in the spotlight as a minimally invasive treatment option. Like coronary artery intervention, until now treatment for peripheral artery disease was conducted mainly by inserting a device through the femoral artery. In patients where this is difficult, and to minimize intervention for all patients, Terumo has developed the R2P system for transradial approach to treat peripheral artery disease. Medical society guidelines mention the risk of bleeding in peripheral artery disease patients. R2P helps address problems in medical settings by reducing the risk of complications from punctures.

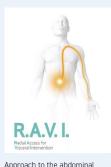


Approach to the lower limb peripheral arteries via the wrist

R.A.V.I.*9, a Useful Treatment for Abdominal Arteries in the Oncology Field

Terumo is also promoting the transradial approach when lesions are found in abdominal blood vessels. The R.A.V.I. system for abdominal blood vessels may also ultimately be used for minimally invasive treatment of liver cancer and uterine fibroids. In fiscal 2020, Terumo launched an angiographic catheter in a format especially for transradial approach for treatment of abdominal blood vessels. Unlike coronary artery treatment, treating lesions via the radial artery with R2P and R.A.V.I. requires a device with a reach of more than 1 meter. This distance means that our device must be improved to offer better control within the blood vessels. Thanks to our long experience with transradial approach product development, we have been able to offer products like this.

Endovascular treatment for abdominal blood vessels facilitates treatment by making it possible to focus more closely on the site of the cancer lesion when surgical removal is difficult. This treatment is now being deployed globally. In fiscal 2020 Terumo acquired Quilem Medical B.V., adding its radiation-emitting microspheres to our portfolio of treatment devices, which include embolization and drug elution microspheres. Together with these devices, we will continue expanding our line of R.A.V.I. products to provide minimally invasive oncology treatment.



arteries via the wrist

Building on our technologies, we have been evolving our treatment and developing access devices suitable for new approaches, to improve patient experience and quality of life and provide economical devices for the healthcare system.

24 Terumo Report 2021
Terumo Report 2021

^{*7} See "History of Value Creation" (p. 14) for details on TRI

^{*8} R2P: Radial to Peripheral

^{*9} R.A.V.I.: Radial Access for Visceral Intervention

Strategies by Company

General Hospital Company

The growing senior population means more patients with multiple diseases and chronic conditions and a corresponding increase in healthcare expenses. The COVID-19 pandemic has heightened awareness of infection control, and technological progress is also increasing the need for Personalized Solutions. To deal with more diverse and complex issues and needs in medical settings, Terumo will provide more and better solutions building on our strengths, to contribute to improving patient care quality, promoting changes in healthcare, and achieving sustainable growth.





Hikaru Samejima

Managing Executive Officer
President, General Hospital Company
Division President, Hospital Systems
Division, General Hospital Company

Mid- to Long-term Vision

Provide unique technologies and services to contribute to improvements in hospital care quality and efficiency as well as innovations in drug delivery

Shift gears to enhance revenue and achieve sustainable growth

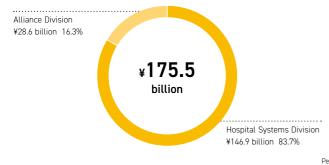
Revenue Mid-single-digit growth Achieve profit growth that outpaces revenue growth; high-single-digit growth, improve adjusted operating margin 2 to 3 percentage points

Fiscal 2020 Performance

Revenue ¥ 175.5 billion

Adjusted operating profit ¥25.7 billion

Revenue by Business



Revenue by Region



Percentages noted next to revenue for each business and region represent the percentage of total revenue

onment S

Opportunities	Risks	
Ongoing growth of global market due to aging population and individuals suffering multiple diseases and chronic conditions	Rising pressure to limit healthcare expenditures and lower prices around the world	
Rising infection control awareness stimulated by the global COVID-19 pandemic		
Development of digital, regenerative medicine, and other new technologies for prevention, diagnosis, and treatment	Increased competition as players in other industries enter the market,	
Accelerated drug innovation as seen in the shift to biopharmaceuticals and spread of immunotherapy	mainly in the areas of incipient disease and prevention	

Hospital Systems Division

The Hospital Systems Division meets many needs of medical settings—including healthcare safety, in-facility infection prevention, individualized medicine, and cost control—by reducing the burdens on patients and medical professionals, developing devices with greater usability, supporting the operation of medical devices, providing training programs for professionals, and many other solutions. Through these solutions that address issues not easily solved by products alone, the division contributes to improved treatment safety, workflow efficiency, and better patient quality of life, toward realizing sustainable healthcare systems.



Alliance Division

Using its unique prefilled drug product technology, Terumo offers solutions to pharmaceutical companies by proposing new drug delivery devices. The division leverages its material technology optimized for the characteristics of each drug and utilizes advanced manufacturing technology to design and produce drug-device combination products. Through alliances with pharmaceutical companies, Terumo provides a total solution from clinical trial drug manufacture to full commercialization, contributing to safer and more certain delivery of drugs patients need.



26 Terumo Report 2021 2 Terumo Report 2021

Fiscal 2021 Priorities

Hospital Systems Division (For hospital market)

We will address the following issues in order to improve hospital care quality and build a sustainable healthcare system.

We will establish a healthcare platform by proposing comprehensive solutions utilizing our diverse product offerings.

- Promotion of digital health solutions such as automated recoding, monitoring, and prescription data integration centered on the Smart Infusion System (smart pump) equipped with drug libraries that can be integrated with the IT systems of hospitals
- Provision of high-quality support through both products and services by bolstering our lineup of advanced infusion systems, including a new type of indwelling needle with a backflow prevention valve, and enhancing our medical equipment maintenance systems
- Utilization of robust lineup of analgesics, sprayable adhesion barrier gels, condensed liquid nutrition, and other products for the perioperative period and the oncology field to resolve issues pertaining to postoperative pain, complications, and adverse drug reactions
- Helping provide safe, reliable care for individuals with chronic kidney failure by promoting adoption of peritoneal dialysis making home care possible during the COVID-19 pandemic
- Contribution to improving diabetes patients' quality of life by introducing Japan's first insulin patch pump, an internally developed product, and a new type of continuous glucose monitoring system, and working with other firms to speed up development of digital
- Enhancement of operating room and hospital room environments with ultraviolet irradiation robots and promotion of hand sanitization and other infection control measures through increased production of syringes for vaccines and the provision of various sanitization-related products and services
- Provision of new value to measure and manage body temperature by expanding supply of contactless thermometers or thermometers designed for easier sanitization

We will proactively deploy initiatives in fields where we can leverage our strengths.

- Expansion of sales of advanced infusion systems, such as smart pumps, and promotion of digital health solutions centered on Asia
- Acceleration of alliances with pharmaceutical companies for growing operations for disposable needles for pen-injectors on a global scale
- Contribution to improving diabetes patients' quality of life around the world by launching our insulin patch pump in overseas markets
- Working with other firms on promotion of digital diabetes treatment solutions in overseas markets, including Europe
- Beginning promotion of hand sanitizer and other infection control products in Asia

Alliance Division (For pharmaceutical market)

Utilizing unique technologies to add value to pharmaceuticals and contribute to better drug delivery.

- Utilization of material technologies and aseptic filling technologies and speeding up development and manufacturing through partnerships with pharmaceutical companies
- Focusing on disseminating intradermal devices to ensure effective, efficient vaccine administration

• Increasing adoption of packaged pharmaceuticals, such as safety syringes engineered to prevent needle stick injury, and PLAJEX prefillable syringes



PLAJEX prefillable syringe

Operations / Cost and Profit Management

- Building on the strengths of each factory to optimize production globally
- Strengthen the global supply chain
- Support sales growth and profit improvement by proactively making the investments necessary to achieve stable supplies, enhance quality and reduce costs over the medium to long term



infusion system (smart pump)



AdSpray sprayable adhesion



Clicksafe dialysis fluid exchange system



Medisafe With insulin patch pump



Needles for drug kit

TOPICS

Terumo Proposes Solutions in Response to Increasing Awareness of Infection Control

Given the heavy impact on hospitals' bottom line as the COVID-19 pandemic continues to spread, infection control in medical settings is more important than ever. But there are complex, multifaceted issues involved in thorough application and operation of infection control. To help deal with these issues, Terumo has set up the Infection Control Initiative, which provides comprehensive proposals to identify and act on the issues and provide follow-up, working mainly through the General Hospital Company. The General Hospital Company has been contributing to safety and reliability in medical settings for many years by providing numerous infection control-related products. Building on this experience, to support hospital management we will propose solutions to issues that cannot be dealt with simply by providing products.

Contributing to Improving the Medical Setting Environment

The SARS-CoV-2 virus can survive for several days on surfaces such as door knobs and bed rails touched by infected patients, making it necessary to sanitize surfaces in rooms used by these patients. Staff at hospitals treating infected patients spend hours cleaning such surfaces, imposing more physical and mental burdens on medical professionals. To lessen the burden on medical professionals and effectively maintain environments, Terumo sells ultraviolet irradiation robots and provides training for using them effectively and efficiently, and offers support for drawing up implementation protocols.



LIGHTSTRIKE® ultraviolet irradiation robot

Providing Information to Support Infection Control

In medical settings, infection control issues include how to implement hospital-acquired infection control methods or how to inform staff of those methods. Terumo has begun providing information, creating a special website page on infection control directed at medical professionals and sending out an email magazine. We support in-hospital infection control by providing information in the form of videos on infection control, know-how for improving compliance with hand sanitation, and tips on how to clean and

Providing New Value in Body Temperature Measurement and Management

Medical equipment is disinfected after use to eliminate pathogens. Thermometers, which come into direct contact with patients, and their storage cases are disinfected. But conventional sheath-type cases were a problem because they were hard to sanitize. We therefore designed a new, partially open case that facilitates cleaning and visual confirmation of soiling. We also launched a thermometer capable of measuring skin temperature without contact, in response to stronger needs for contactless thermometers for infection screening. This thermometer measures reliably and is easy to use. Since it is used in medical settings, it is also waterproof and resistant to chemical solutions, and can be wiped clean with a broad variety of disinfectants. By meeting needs in medical settings, we provide new value for safe, reliable healthcare.



Special website page on



Right: Terumo C207/217 Left: Fukitorun-case

thermometer storage case



Infection control mascot

Terumo CS101 contactless infrared thermometer

Contributing to Efficient Use of Vaccines

We developed a syringe to contribute to more efficient administration of SARS-CoV-2 vaccines. This syringe, developed for efficiently administering flu vaccines, comes with an embedded needle to minimize dead volume*. The syringe for flu vaccines comes with a 13mm-long needle, but this product has a longer 16mm needle for administering SARS-CoV-2 vaccines. Using automated integrated production technology, most processes, from plastic molding to product assembly, packing and sterilizing, are done on unmanned lines so that we can supply syringes to quickly deliver vaccines to as many people as possible.



FN Syringe

Terumo Report 2021 Terumo Report 2021

^{*} Dead volume: Fluid trapped in the gap between the rubber gasket and the tip of the syringe when the plunger is fully pushed in.

Strategies by Company

Blood and Cell Technologies Company

We strive to advance healthcare standards by innovating with customers to focus on patients' needs. The pandemic put a spotlight on our purpose, and we rose to the challenge. We are proud of our contributions to the healthcare community with innovative solutions to solve the toughest challenges, including treatment options; vaccine development support; and the uninterrupted supply of products for COVID-19 convalescent plasma collection and blood donations globally.



Antoinette Gawin

Executive Officer
President, Blood and Cell
Technologies Company
President and CEO, Terumo
BCT Holding Corp.

Fiscal 2020 Performance

Revenue ¥ 109.5 billion

Adjusted operating profit ¥ 19.1 billion

Targets

Revenue Return to growth;

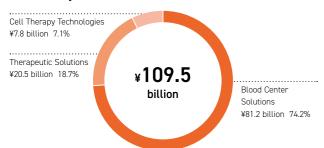
mid-single-digit growth

Adjusted operating profit

Achieve profit growth that outpaces revenue growth;

high-single-digit growth

Revenue by Business



Revenue by Region



Percentages noted next to revenue for each business and region represent the percentage of total revenue

Environment

Opportunities	Risks	
Heightened importance among pharmaceutical and biotechnology companies to establish stable manufacturing and build capacity to meet increasing number of commercialized cell and gene therapies	Implementation of more stringent regulations increasing the importance of clinical data and quality	
Increased opportunities for the adoption of new therapies in response to unmet medical needs in the therapeutic apheresis market	Decreased blood donations stemming from a decrease of donors	
Rising demand for medical solutions with optimized processes, better productivity, and data connectivity in response to soaring health-care costs as the population ages	Potential emergence of drugs, alternative treatments, and disruptive treatments to replace therapeutic apheresis and blood transfusion	
Development of precision medicine increasing demand for patient-specific medical information	Increased customer concern with protecting the confidentiality, integrity and availability of information and assets from cybersecurity threats	

 Sophisticated automated cellular and blood component manufacturing processes and data integration systems to deliver better treatment outcomes

Strengths

- Innovation utilizing a broad product portfolio and an expansive global sales and support network
- Partnerships with customers fostered by providing services and clinical support
- Expanded health data analytics capabilities to provide more treatment options to the market
- Strong brand reputation in the blood and blood component market

Blood and Cell Technologies Company

Blood and cells are indispensable in sustaining our lives, and at the same time, they hold the potential to treat cancer and other serious diseases. The Blood and Cell Technologies Company, which is headed by the subsidiary Terumo Blood and Cell Technologies, provides devices to safely and efficiently process donated blood into blood products and to collect blood components needed for transfusions and cell therapy. The company also offers automation and workflow efficiency solutions to support pharmaceutical company's manufacturing process for cell therapies. The company will continue to advance its unique technologies to provide patients with new treatment options.



■ Blood Centers Solutions

Realize better quality and efficiency in blood component collection and product preparation processes.

■ Therapeutic Apheresis and Cell Collection

Collect blood components needed for treatment or remove unwanted components.

Cell Processing

Process the cells needed for treatment or research efficiently to support cell therapy development and commercialization.

Autologous Biologics

Separate, concentrate, and formulate a patient's own plasma, bone marrow or adipose tissue for treatment.

Fiscal 2021 Priorities

We are committed to providing compelling and accessible innovations by going beyond blood, beyond equipment and deploying our full portfolio globally.

Beyond Blood:

- Collaboration with CSL Plasma, a leader in the source plasma market
 We are entering the source plasma market, which continues to grow rapidly, and we are building an entire ecosystem to address unmet needs.
- Accelerating initiatives targeting the cellular therapy manufacturing processes
 We are helping to realize the maintenance of consistent quality in, and automation of, manufacturing processes for pharmaceutical companies and R&D centers by automating complex manual processes and through our Quantum Cell Expansion System and our FINIA Fill and Finish System. We also provide support to customers to scale their manufacturing capabilities as their needs grow.



Quantum cell expansion system

FINIA cell therapy fill and finish system

Beyond Equipment

In conjunction with our wide-ranging product portfolio, we are also expanding our service and software support to help our customers excel:

- In blood centers, we are helping customers to increase blood component yield and productivity, while also reducing costs and improving margins.
- We provide training, data analytics and compliance management for the cell therapy products market.
- By providing unique software solutions for hospitals, blood centers and pharmaceutical companies, we are helping them to realize enhanced efficiency and data connectivity.

Full Portfolio Globally

- We are actively deploying our existing product portfolio to fast-growing markets.
- We are contributing to enhanced patient access by mobilizing our technology, clinical research, medical affairs and knowledge of relevant systems in individual countries and regions.

Continuous improvement of our operations

 We are committed to making our operations even more efficient and realizing operational excellence to bring further innovation to the market.



Trima Accel component collection system



REVEOS automated blood processing system

TOPICS

Using Terumo's Unique Innovation to Enter New Markets and Help Tackle the COVID-19 Pandemic

Collaboration with CSL Plasma, a Market Leader

In April 2021, Terumo Blood and Cell Technologies and CSL Plasma announced a collaboration to deliver a new plasma collection platform for the source plasma market. Plasma from human blood is used globally to create therapies crucial to treating patients with a host of life-threatening conditions, such as primary immune deficiencies, hereditary angioedema, autoimmune diseases, hemophilia and inherited respiratory disease. Plasma is also commonly given to patients experiencing trauma, burns and organ transplant surgeries. With increasing demand for plasma-derived therapies, a clinical trial of the investigational plasmapheresis device began in April 2021 to deliver the platform to CSL Plasma U.S. collection centers.

Our entrance into the source plasma industry with the market leader, CSL Plasma, demonstrates our leadership and expertise in collecting blood components and cells using apheresis technology on our Spectra Optia Apheresis System and Trima Accel Automated Blood Collection System. We are known for our best-in-class designs and innovations while improving the donor and operator experiences. CSL Plasma and Terumo Blood and Cell Technologies share a similar vision and passion for innovating and investing in the future of healthcare. Terumo Blood and Cell Technologies holds a continued commitment to solving customer problems and providing excellent service and support capabilities – making us an attractive choice for CSL Plasma.

Trima Accel Automated Blood Collection System

Blood from donations is processed at blood centers into products including platelets, plasma, and red blood cells, then supplied to medical institutions. Terumo provides blood centers with blood collection instruments, disposable kits, whole blood bags and devices used to process blood products.

Terumo Blood and Cell Technologies scaled up production by over 50% to support the increased demand for the collection of COVID-19 convalescent plasma (CCP). The Trima Accel Automated Blood Collection System plays a vital role in convalescent plasma by collecting blood components, including plasma, in any combination. Across the board, Trima Accel offers blood centers increased productivity by collecting more of the blood components that are needed, producing higher-quality blood components and improving the experience for donors and operators.

In 2021, the company was recognized by the Blood Centers of America with the Critical Infusion Award for our contributions to blood centers with training and the continued supply of Trima Accel collection kits.

Terumo Blood and Cell Technologies has consistently invested in growth areas with new product launches in cell and gene therapies, new service offerings and expansion into new geographies.



Spectra Optia centrifugal apheresis system



Convalescent plasma treatment using Trima Accel®

Strategy 100th Anniversary and History of Value Creation Strategy Foundation Supporting Value Creation Data Section

R&D and Intellectual Property

Looking to the future of healthcare, we will strengthen internal development capabilities by drawing on our own core technologies and promoting external collaboration. With these efforts, we will aim to develop solutions of value to medical settings, which will contribute to resolving medical challenges with significant social impact.

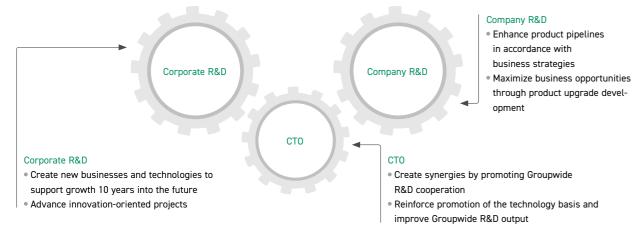
Basic Concepts

The Terumo Group's research and development activities fall largely into two categories. The first is Corporate R&D, where mid- to long-term research and development work is performed. With a future horizon of 10 years, Corporate R&D aims to create the new businesses and technologies that will support future growth for the Terumo Group. Those working on Corporate R&D projects coordinate with stakeholders such as medical settings and develop new technologies. The second category of Terumo Group research and development activities is Company R&D. Here, work focuses on supporting the growth of core business segments by strengthening short- to mid-term product pipelines in accordance with the business strategy of the individual business segments.

The Chief Technology Officer (CTO), who oversees R&D activities for the entire Group, concentrates on creating synergies by promoting cooperation across geographic, business, and organizational boundaries.

In leading the promotion of organic cooperation on a Groupwide scale, while associates in Corporate and Company R&D focus on their own activities, the CTO aims to continuously engender outstanding innovation in response to frontline medical needs.

Terumo Group R&D System



Corporate R&D Mid- to Long-term Strategy

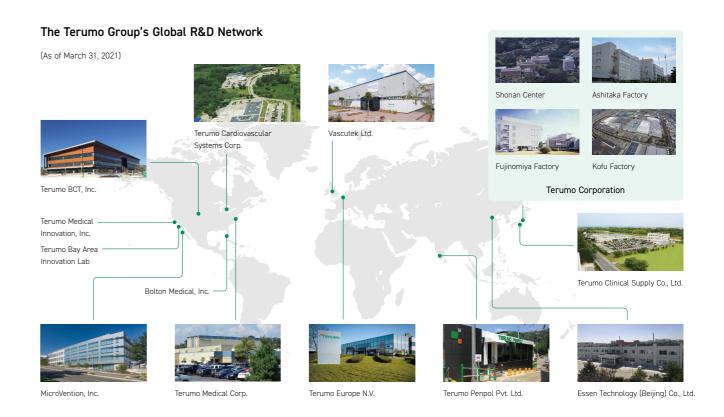
As pathological conditions and diseases that significantly affect society, such as chronic heart failure, stroke, and cancer, increase with the aging of society, innovations that contribute to the realization of longer healthy lifespans and efficient medical care are needed. To these ends, such innovations must adopt comprehensive approaches that encompass prevention and hospital care through to post-discharge prognosis control and recurrence prevention. In light of such social trends, the aim of our Corporate R&D activities is to gain insight into the future of medical care and provide new value.

In selecting R&D themes from among the medical care issues that significantly affect society, the Terumo Group gives priority to fields that promise market growth and in which it can realize competitive advantages. At the R&D concept planning stage, we take the initiative in conducting investigations on needs in medical settings and then discuss and verify the usefulness of our proposed solutions with medical professionals. Further, aiming to support its growth going forward and to create technologies and products with even higher added value, the Terumo Group is strengthening in-house development capabilities by evolving its core technologies and making optimal use of its technologies and infrastructure through in-house collaborations that transcend business boundaries. In conjunction with these efforts, we aim to anticipate technological trends and use external technologies flexibly to develop businesses.

Through such initiatives, the Terumo Group will support its growth in the coming generation while helping to address the medical care issues of tomorrow.

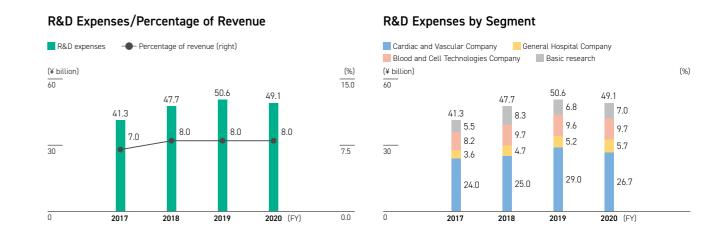
Terumo Group R&D Sites

Focused on the R&D Center in Japan, Terumo is pursuing next-generation research and development through internal development as well as through the development and unification of promising technological seeds from around the world. In recent years, we have been expanding the scope of R&D activities and accelerating these activities through the globalization of development via M&A activities and strategic partnerships and through coordination between R&D sites in the United States, Europe, Asia, and other locations across the globe.



R&D Expenses

Fiscal 2020 R&D expenses totaled ¥49.1 billion, or 8.0% of revenue. Of that total, the Cardiac and Vascular Company accounted for ¥26.7 billion; the General Hospital Company accounted for ¥5.7 billion; and the Blood and Cell Technologies Company accounted for ¥9.7 billion. Basic research expenses not allocable to any particular segment totaled ¥7.0 billion.



Strategy 100th Anniversary and History of Value Creation Strategy Foundation Supporting Value Creation Data Section

R&D and Intellectual Property

Open Innovation Initiatives

Basic Policy on Open Innovation

At Terumo, we have created new value by cooperating with other companies and outside organizations in various ways throughout our history of achieving diversification, mass production, and advanced functionality. Our open innovation initiatives started with the technology exploration we launched in the United States in the late 1990s, while we started conducting Groupwide initiatives around 2015 when we adopted the CTO system.

Medical devices integrate a variety of technologies. Incorporating optimal technologies available in the world is the best way to provide optimal solutions for the needs of medical settings. These technologies are not always just our own—they also require using a wide range of outside technologies. Our strengths include an in-depth understanding of medical settings, conceptual designs based on biological mechanisms, and the technologies to turn those concepts into reality. Leveraging these strengths, we connect the scientific output of outside research organizations with practical applications and use other companies' general-purpose and industrial technologies to accelerate development so that we can provide new products and medical solutions. Along with recent digital technology innovations, the digital field in particular has become an area where open innovation will be tapped even more.

In addition, we are acquiring technologies with competitive advantages and promoting faster development by appointing collaboration promoters at each division and corporate function departmental sites and accelerating internal collaboration and open innovation, aiming to mobilize and deepen our Group's core technologies.

Participation in Venture Capital Funds (U.S. East/West Coast and Shanghai, China)

One strategy that complements R&D and business development is the acquisition of new technologies and businesses. We first participated in the Emergent Medical Partners fund, a venture capital fund based on the West Coast of the United States, in fiscal 2013. We have assigned an associate to work at the fund, and from this foothold we have built our own network and evaluated more than 2,000 start-ups over the past six years. In addition to investing in this fund, we use the experience gained from it to also invest directly in start-ups. Through this initiative, we acquire new technologies that align with our business strategy and have enhanced our ability to identify innovative ideas at our own company.

In fiscal 2019, we began participating in a fund of West Coast-based Strategic Healthcare Investment Partners and a fund of East Coast-based Catalyst Health Ventures. By participating in funds on both the East and the West coasts of the United States, which are global hubs for innovation, and assigning associates to work at their offices, we are able to participate in a broader range of projects than before. Going forward, we will focus on new exploration and strive to fulfill unmet medical needs. In addition, in fiscal 2020 we announced our participation in a fund operated by CD Capital, a Shanghai-based venture capital firm, with the aim of becoming involved in new technologies and the start-up ecosystem in China from an early stage. This has led to the acquisition of medical device and digital health technologies suited to medical needs in China, the expansion of products manufactured in China, and the development of new business models.

Terumo Bay Area Innovation Lab. (TBAIL)

Terumo Bay Area Innovation Lab., located in San Jose, California, USA, utilizes the local healthcare development ecosystem to develop new devices.

Here, associates from Kalila Medical, which became a member of the Terumo Group through an acquisition from U.S.-based Abbott Laboratories in fiscal 2016, and associates from the corporate R&D development team in Japan work together on the development. Leveraging its location in a healthcare development base with ample development resources, it quickly provides innovative products to medical settings using a start-up development style, including developing devices that would be difficult to develop in Japan and conducting fast-tracked development.



Fumihisa Hirose
Senior Executive Officer
General Manager, Strategic
Planning Dept.
Chief Technology Officer (CTO)

Message from the CTO

From my start in development in the cardiovascular field, I gained experience in a variety of fields including marketing and management of overseas subsidiaries before assuming the position of CTO in fiscal 2021. I also concurrently serve as the General Manager of the Strategic Planning Department. By devising and implementing a Mid- to Long-term Strategy for the next term, we will increase the R&D output of the Terumo Group.

We have implemented the following three specific initiatives.

Implementation of the next Mid- to Long-term Innovation Strategy

The next Mid- to Long-term Innovation Strategy creates an innovation strategy that covers not only the next five years but also looks ahead to the next 10 years. In order to achieve the strategy, we identify technology fields where we should reinforce our Group's capabilities, and then proactively advance development and acquisition of technologies, and support their implementation.

Further enhancement of collaboration

We will build a system for our Group to mobilize the technology assets that we have built up in our global R&D activities in a wide range of fields along with the Terumo Group's growth. We will further enhance our intra-Group collaboration, including with the R&D Promotion Department, corporate R&D, company R&D, global R&D bases, Pranex, and the DX Promotion Department, to develop systems and foster a culture able to heighten the creativity and applicability of our technologies and co-create new value. In fields such as sensing and digital technology that will require the acquisition of technologies, we will seek out collaboration with outside partners.

Creating a platform for R&D intelligence

We strive to improve the overall capabilities of our Group R&D by formalizing the experience, knowledge, lessons learned from failure, and other know-how gained in R&D base activities through a shared global system and sites.

For approximately 30 years since the 1990s, we have welcomed a number of unique global companies into our Group. By mobilizing throughout our Group, the various technological assets and know-how held by each company and generating synergies, we will enhance our Group's R&D output and contribute to sustainable growth over the mid- to long term.

R&D and Intellectual Property

Basic Stance on Intellectual Property Management

The Terumo Group strives to create intellectual property that will help strengthen its competitiveness. In doing so, we establish a priority for allocating resources, based on R&D and business strategies. Development directions are considered and intellectual property portfolios are built from a strategic perspective. In this perspective, development and intellectual property departments initiate development activities by collaborating in identifying other companies' patents and the characteristics of their products and services. As we expand our business operations globally, we are strengthening cooperation with overseas Group companies to further the effective application of the Group's intellectual property and taking steps to improve our management of intellectual property risk.

Company 41%

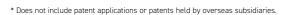
Patent Portfolio

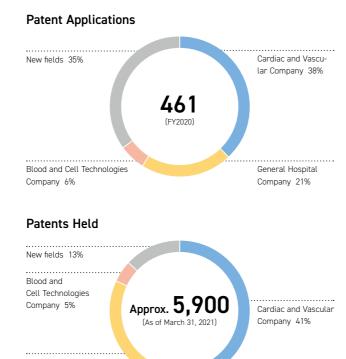
■ Patent Applications (by segment)*

In fiscal 2020, Terumo filed 461 patent applications (filed in the first country), with 65% related to existing businesses, and 35% related to new areas not associated with existing businesses. From these figures, it is evident that Terumo continues to enhance and improve existing products while also actively pursuing investments for future business expansion and new endeavors.

Patents Held (by segment)*

As of March 31, 2021, Terumo held approximately 5,900 patents issued in Japan and abroad. Patents related to existing businesses account for a relatively high 87% of the total, with patents related to new areas making up the remaining 13%. Reflected here is the impact of Terumo's earnings cycle, in which technology for "Advanced" products is also applied in "Platform" products. Even as we develop inventions in new fields, we use what we newly create to contribute to the businesses that comprise our existing operations. Patents held in Japan currently represent 41% of our patent portfolio, while patents held overseas represent 59%, illustrating an increase in overseas patents focused on those supporting overseas operations.





Digital Transformation (DX)

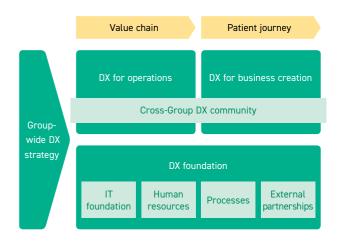
From a Group-wide perspective, Terumo aims to achieve further growth through DX for business creation to improve the value delivered to customers, and DX for operations to make operations more efficient and innovate the value chain, including production and logistics.

Basic Approach

High-speed mobile communications, cloud computing, artificial intelligence, and other technological advances have brought greater convenience to our daily lives and created a wide range of services offering added safety and security. They are rapidly changing the world in which we live. The wave of change is also touching healthcare, where the application of new technologies is expanding, not only in medical devices and pharmaceutical products but also in making healthcare more efficient and in services designed to improve the patient experience.

Terumo is leveraging digital technologies to cohesively integrate products and services, aiming to provide comprehensive solutions with medical value in the patient journey. For example, we are developing a system that integrates subcutaneous glucose concentration measured in real time by a continuous glucose monitoring system to continuously administer insulin from an insulin pump in the dosage needed according to the patient's state. We are also working on a digital treatment system for the purpose of supporting diabetes treatment based on the individual's blood glucose level and data such as meals, activity level, and medication use, as well as a service capable of centrally managing data relevant to diabetes treatment, including blood glucose levels and insulin dosages. These projects are progressing through alliances with partner companies, and we intend to create new solutions through more open innovation projects in the future as well.

While new business opportunities are emerging, the market competition is intensifying, and competitors are leveraging digital technologies to engage in overseas production, optimize their global logistics systems, and conduct marketing remotely during the COVID-19 pandemic. The velocity of DX for operations is accelerating. At Terumo, we are making steady progress on building out our global IT foundation to bring greater efficiency to the entire value chain from R&D and production to delivery to customers. Using data obtained from the IT foundation, we are innovating our strengths, including advanced production technologies, wide-ranging points of customer contact, and training programs for healthcare professionals to deliver new value to customers.





Shinji Omori General Manager, DX Promotion Department

Message from the General Manager of the DX Promotion Department

The DX Promotion Department was established in April 2021 as the organization that plans the overall DX strategy for the Terumo Group and implements DX for business creation and DX for operations. Many DX projects are already underway within the Terumo Group, but we lacked a system to centrally manage information obtained from the projects, discuss Group-wide issues that encompass more than one organization or business, and share expertise. As a first step to building this system, the DX Promotion Department has launched a community that brings together associates from each region, business, and functional department who are demonstrating leadership in the area of DX. Bringing together expertise from businesses and departments, this community discusses global, Group-wide issues and shares best practices to pursue the optimum DX for Terumo. The DX Promotion Department is also coordinating with relevant divisions to build the foundation to support DX Promotion, including the IT foundation, human resources, internal processes and systems, and external partnerships.