

FY 2020-2022 Medium-Term Management Plan

(Update Due to the Upward Adjustment of Performance Targets)

**May 11, 2022
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Shimadzu Corporation**

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I. Overview of the Current Medium-Term Management Plan

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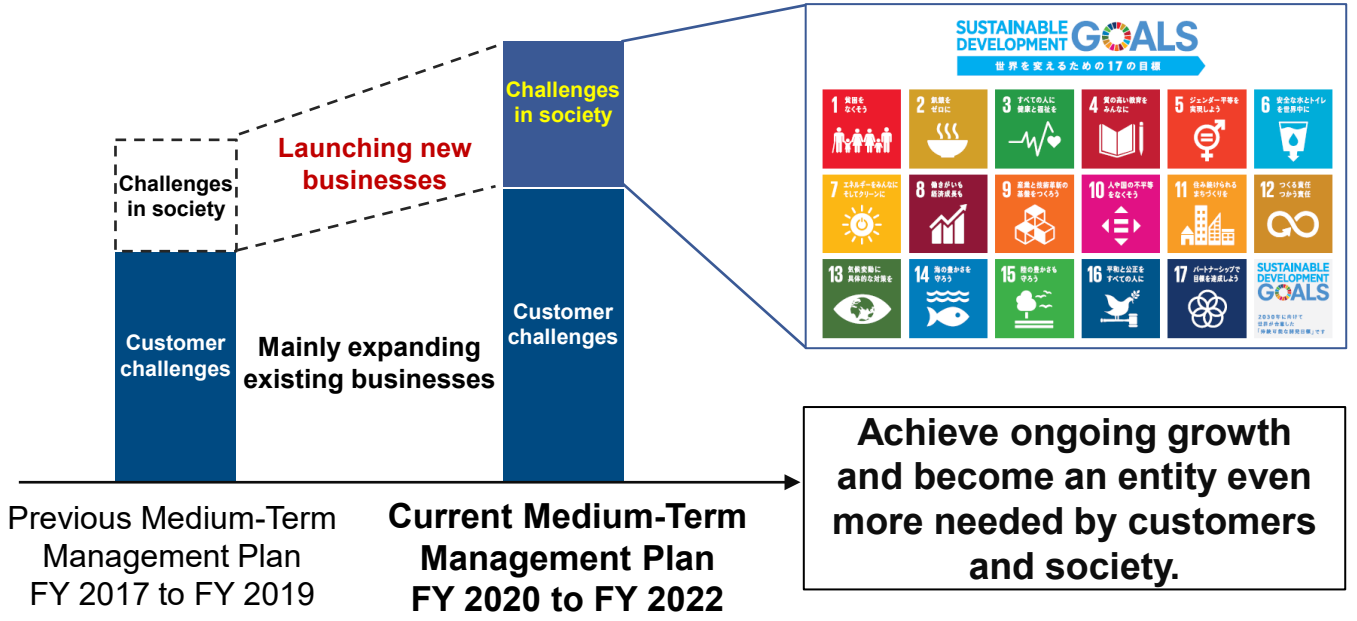
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I. Overview of the Current Medium-Term Management Plan—1/7

Basic Concept: Become a Company That Solves Challenges in Society in Collaboration with Partners All Around the World

- During the previous medium-term management plan, we started initiatives to “become a company that solves challenges in society in collaboration with partners all around the world” and deployed necessary investments and joint research accordingly.
- Based on those initiatives, the current medium-term management plan specifies creating systems for using Shimadzu products and services to solve challenges in society, commercializing businesses based on promoting those solutions in society, and thereby creating new markets.

Become a Company That Solves Challenges in Society in Collaboration with Partners All Around the World —Creating and Implementing Systems for Solving Challenges in Society—



Previous Plan

Current Plan

Engage in Solving Challenges in Society

Shimadzu **R&D partners**

Jointly develop and release new products.

Create Systems for Solving Challenges in Society

Establish businesses based on new products, technologies, or services.

Strategic Partners
Partners for strategically promoting solutions in society

Business Partners
Partners that actually use the new systems

Key Points of the Current Medium-Term Management Plan

Slogan ▶▶▶ **Become a Company That Solves Challenges in Society in Collaboration with Partners All Around the World**
—Creating and Implementing Systems for Solving Challenges in Society—

FY 2022 Performance Targets ▶▶▶ **New: Net sales of 455.0 billion yen, operating income of 68.0 billion yen, and operating margin of 14.9 %**
 Original: Net sales of at least 430.0 billion yen, operating income of at least 57.0 billion yen, and operating margin of at least 13.3 %

Ongoing Measures for Infectious Diseases ▶▶▶ **Infectious disease countermeasure projects**

Four Growth Strategies ▶▶▶

- Strengthen/expand key businesses
- Strengthen/expand businesses outside Japan
- Expand businesses with recurring revenues
- Expand businesses in four growth fields

Strengthen the Foundation for Growth ▶▶▶

- Strengthen/expand business portfolio
- Develop human resources and reform human resource systems
- Implement DX measures
- Strengthen financial and development functions
- Strengthen governance
- Implement sustainability management

Infectious Disease Countermeasure Projects—Progress after Second Year—

➤ We have implemented collaborations in and outside Japan for preventing infections, such as developing new testing methods and building testing data management systems.

Products

Creating Systems

Virus Testing

New PCR testing reagent
(also detects variants)



PCR testing system




Displaying results



Rapid virus testing MALDI mass spectrometer



New virus testing method using blood and exhaled breath, prediction of progression to severe diseases, and healthcare methods using exhaled breath

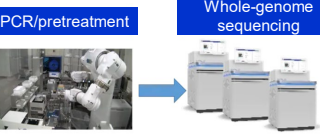


Support for Establishing PCR Testing Centers in Companies/Universities




Large-Scale Variant Analysis Based on Whole Genome Analysis

PCR/pre-treatment → Whole-genome sequencing



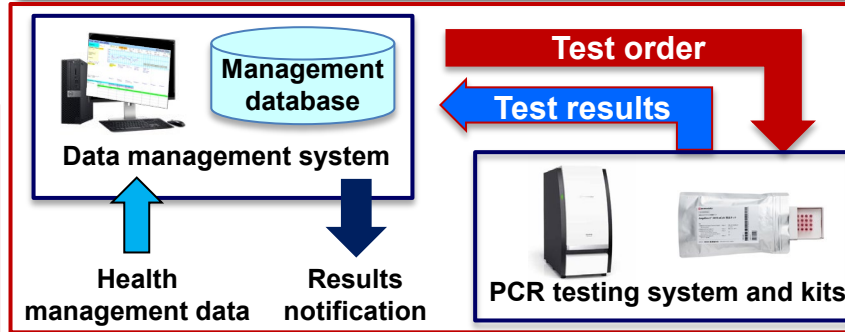
Pathological Diagnosis (Pneumonia Examination)

Mobile X-ray system (pneumonia examination)



Patients can be examined for pneumonia from their bedside in a patient room or ICU.

Testing Data Management System



Support for Preventing Infection

Standards testing for disinfectant ethanol




Patient self-interview system as infectious disease countermeasures



Therapeutic Drug Development Support

System for measuring blood concentration of candidate therapeutic drugs for the coronavirus

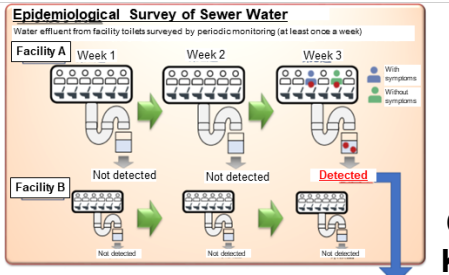
ALSACHIM
a Shimadzu Group Company



Virus Monitoring


Monitoring coronaviruses in sewer water to predict virus spread

Epidemiological Survey of Sewer Water
Water effluent from facility toilets surveyed by periodic monitoring (at least once a week)



Human Infection Testing
Identify infected subjects, including those tested positive without symptoms, and then use data to prevent infection spread.

Overview of Kyoto Model



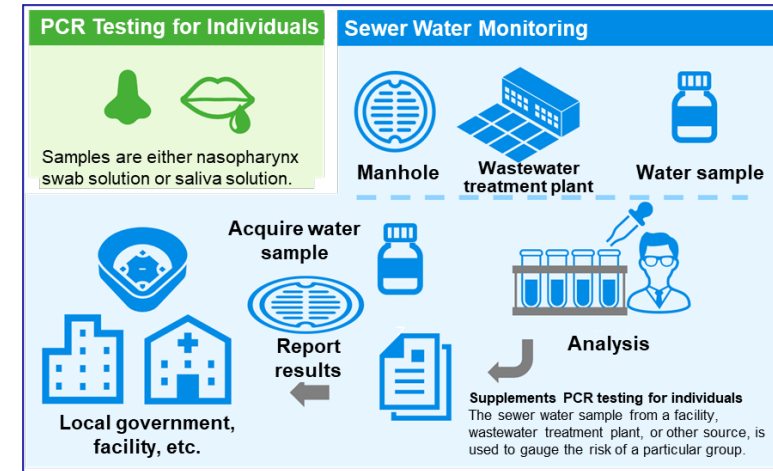
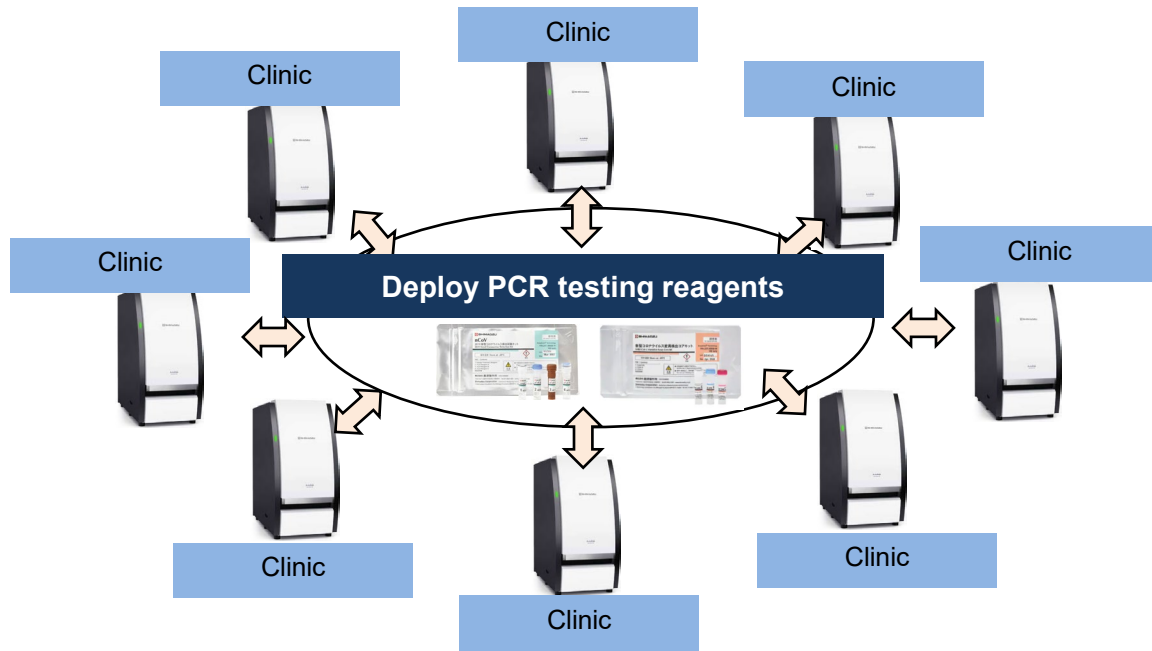
I. Overview of the Current Medium-Term Management Plan—3/7

Infectious Disease Countermeasure Projects—Transitioning to Ongoing Measures—

- Strengthen reagent development and manufacturing.
- Start new measures for monitoring sewer water and facility effluent water.

■ **Strengthen Development and Manufacturing of PCR Testing Reagents**
 Develop and release testing kits for infectious diseases other than COVID-19, so that fully automatic PCR testing systems can be used as tools for quickly assessing the spread of other infections in respective regions.

■ **Build a Business for Monitoring Sewer Water and Facility Effluent Water**
 Engage in the sewer water and facility effluent water monitoring business via AdvanSentinel Inc., the company established in partnership with Shionogi & Co., Ltd.



AdvanSentinel

Four Growth Strategies

Four Growth Strategies	Key Measures
<p>Strengthen/expand key businesses</p>	<ul style="list-style-type: none"> ➤ Strengthen competitiveness and develop new applications/markets for key product lines, mainly liquid chromatographs (LC) and mass spectrometers (MS), and increase market share especially outside Japan. ➤ Strengthen high-end products with higher resolution and/or sensitivity. ➤ Expand/improve product line of fully automatic pretreatment systems and other products based on technologies such as AI, IoT, or robotics.
<p>Strengthen/expand businesses outside Japan</p>	<ul style="list-style-type: none"> ➤ Strengthen businesses outside Japan and expand businesses especially in pharmaceutical, chemical, healthcare, environmental testing, and government/academia fields. ➤ Offer various kinds of solutions globally by strengthening partnerships with strong partners in various regions of the world and by strengthening measures in pharmaceutical, food science, environmental, or other regulatory compliance fields.
<p>Strengthen businesses with recurring revenues</p>	<ul style="list-style-type: none"> ➤ Strengthen the product line of consumables and offer a diverse variety of solutions, such as new service packages. ➤ Develop business models based on new billing systems, attract new customers, and develop new fields.
<p>Expand businesses in four growth fields</p>	<ul style="list-style-type: none"> ➤ Advanced healthcare: Accelerate commercialization in preventive, diagnostic, treatment, and other fields, such as dementia and cancer treatment. ➤ Environmental/energy: Strengthen ability to offer solutions for electric mobility, storage batteries, and renewable energy. ➤ Materials: Promote materials informatics, which combines data from measuring materials and analyzing components. ➤ Infrastructure: Develop businesses that combine existing seeds with new technologies. ➤ Use Startup Incubation Center to accelerate commercialization of businesses in the four growth fields.

Investment in Capital Equipment and R&D

- **During FY 2020 and FY 2021, investment levels were impacted by the pandemic, but are now steadily recovering. During FY 2022, accelerate investments intended for achieving future growth.**
- **Capital equipment investment: Expand/improve the business base, mainly outside Japan, such as by strengthening sales bases and Innovation Centers, and invest in DX measures.**
- **R&D: Promote joint research/development projects globally.** Develop technology and strengthen competitiveness mainly for liquid chromatograph (LC) and mass spectrometer (MS) products, promote infectious disease countermeasures, and accelerate R&D in advanced fields, such as for advanced healthcare, food science, carbon neutrality, and innovative biotechnology.
- **M&A and capital participation: Strengthen mainly LC and MS businesses. (Expand reagent, consumable, and instrument product lines and expand sales/service networks.)**

■ **Capital equipment investment: 54.9 billion yen (54.0 billion yen planned)—14.5 billion yen actual in FY 2020, 16.4 billion yen actual in FY 2021, and 24.0 billion yen planned for FY 2022**

• **Strengthening the business base outside Japan**

North America Sales/service: Open Application Center (achieved within FY 2021), **strengthen application development functions,** and expand/strengthen functions of the application laboratory, collaboration laboratory, and training center.

Manufacturing: Expand analytical instrument manufacturing capacity.

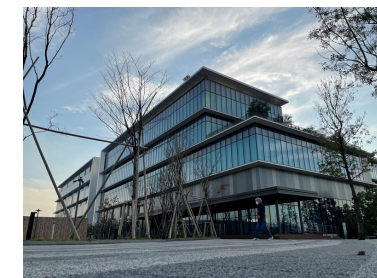
Europe Sales/service: Expand/improve clinical laboratory and establish new branch.

China Development: Establish joint laboratory for clinical software, etc.

Manufacturing: Expand analytical instrument manufacturing capacity.

Other Asian countries Manufacturing: Strengthen in-house manufacturing of analytical instruments.

- Other investments **planned for FY 2022: Open Shimadzu Tokyo Innovation Plaza, expand TMP production capacity, and invest in DX measures.**



SHIMADZU
Tokyo Innovation Plaza
(Scheduled to open in Oct. 2022)

■ **R&D: 51.0 billion yen (53.0 billion yen planned)—15.7 billion yen actual in FY 2020, 16.3 billion yen actual in FY 2021, and 19.0 billion yen planned for FY 2022**

• Investments in technology development and strengthening competitiveness: Mainly for key businesses (LC and MS)

• R&D topics: Infectious disease countermeasures, advanced healthcare, food science, carbon neutrality, advanced analysis, the brain/five senses and innovative biotechnology, AI, etc.

Performance Targets

FY 2022 Corrected Performance Targets

Net sales of 455.0 billion yen (25.0 billion yen higher than original), operating income of 68.0 billion yen (+11.0 billion yen), and operating margin of 14.9 % (+1.6 pt)

(Original targets: Net sales of at least 430.0 billion yen, operating income of 57.0 billion yen, and operating margin of 13.3 %)

New Targets

Units: Billions of yen		FY 2019	FY 2021	FY 2022 New Plan	Increase from FY 2019	Percent Increase from FY 2019
Net Sales		385.4	428.2	455.0	69.6	18.0%
Operating Income		41.8	63.8	68.0	26.2	62.5%
Operating Margin		10.9%	14.9%	14.9%	—	—
ROE		10.8%	13.2%	At least 10%		
Average Foreign Exchange Rate	US\$	¥108.78	¥112.43	¥115		
	€	¥120.86	¥130.60	¥130		

Comparison to Original Targets

Units: Billions of yen		FY 2022 Original Plan	FY 2022 New Plan	Increase from Original Plan	Percent Increase from Original Plan
Net Sales		430.0	455.0	25.0	5.8%
Operating Income		57.0	68.0	11.0	19.3%
Operating Margin		13.3%	14.9%	1.6pt	—
Average Foreign Exchange Rate	US\$	¥105	¥115		
	€	¥115	¥130		

Capitalization Policy

- Invest for future growth, mainly in R&D and capital equipment, provide value to stakeholders, and contribute to society.
- We will continue to maintain stable dividends based on a target 30 % total shareholder return.

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022 (Estimate)
Dividend (yen)	13	18	20	24	28	30	34	48	50
Total Shareholder Return	20.8%	22.2%	22.3%	23.7%	25.4%	27.8%	27.8%	29.9%	30.1%



Shimadzu Integrated Report
<https://www.shimadzu.com/ir/library/annual.html>



II. Strategic Measures in the Current Medium-Term Management Plan

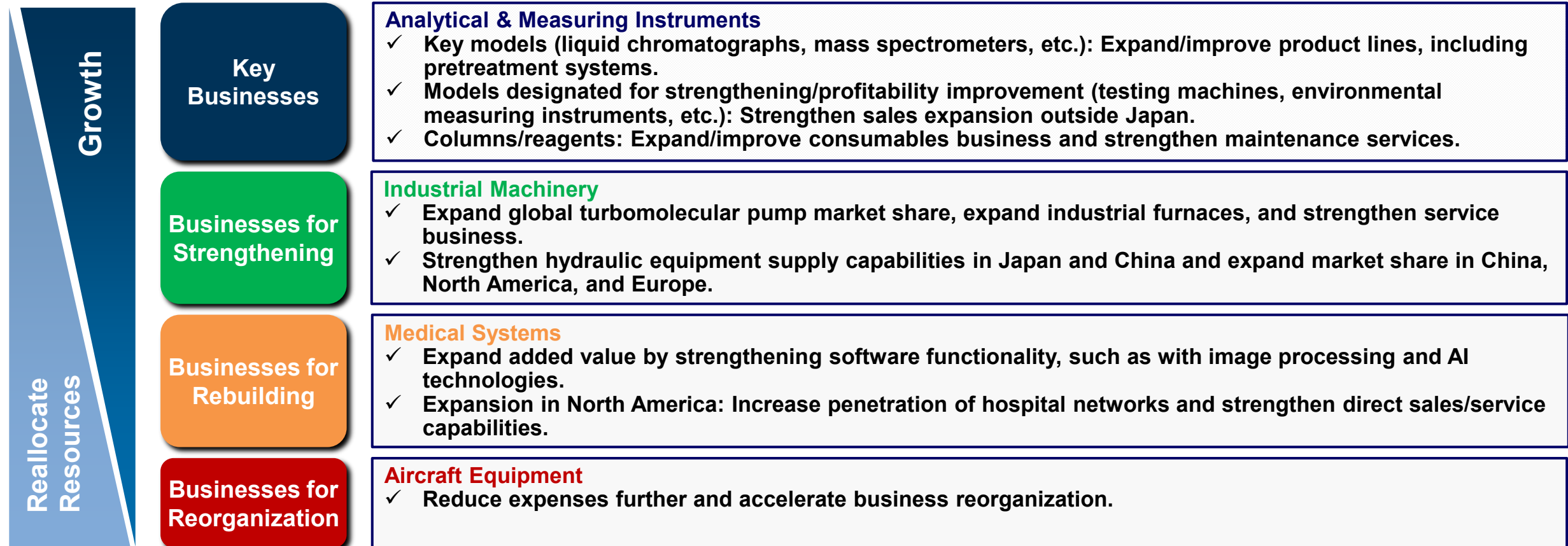
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- **Expanding Businesses in Four Growth Fields: Startup Incubation Center**
- **Measures for Achieving Carbon Neutrality**
- **Implementing Sustainability Management**

II. Strategic Measures in the Current Medium-Term Management Plan—1/10

Strengthening the Foundation for Growth—Reforming Business Portfolios—

- Improve the profitability of current businesses and reassess the future growth potential of each business and business category.
- Create new businesses based on synergies between different business segments.



Net Sales by Business Segment—Plan—

- **Analytical & Measuring Instruments:** Given strong investment activity in pharmaceuticals and life sciences, expand LC and MS key models and recurring revenue businesses and strengthen carbon-neutrality measures.
- **Industrial Machinery:** Given investment in semiconductor field due to 5G, for example, expand TMP business, and expand market share especially at major semiconductor manufacturing equipment manufacturers.
- **Medical Systems:** Strengthen software and expand business in North America.
- **Aircraft Equipment:** Reduce expenses further and accelerate business reorganization.

Units: Billions of yen	FY 2019	FY 2021	FY 2022 Original Plan	FY 2022 New Plan	Versus Original Plan	Increase from FY 2019	Percent Increase from FY 2019
Analytical & Measuring Instruments	236.2	277.5	270.0	292.0	+22.0	+55.8	+23.6%
Industrial Machinery	43.0	56.7	60.0	63.0	+3.0	+20.0	+46.4%
Medical Systems	70.2	66.9	72.0	73.0	+1.0	+2.8	+4.0%
Aircraft Equipment	30.0	22.3	23.0	22.5	-0.5	-7.5	-25.1%
Other	6.0	4.7	5.0	4.5	-0.5	-1.5	-24.7%
Total	385.4	428.2	430.0	455.0	+25.0	+69.6	+18.0%

Strengthening Key Businesses for Analytical & Measuring Instruments Segment (1)

—Liquid Chromatographs (LC)—

Policies: (1) Expand line of pretreatment/detector products, etc., (2) Strengthen core products, (3) Expand/improve dedicated systems and consumables, and (4) Expand use of AI/networking

Points for Strengthening

Expand/Improve Product Lines



Increase MS Efficiency



Compliance with Regulations



Utilize AI Technology



Units: Billions of yen	FY 2019 Results	FY 2021 Results	FY 2022 Plan (Original Plan)	Increase (Versus FY 2019)	Percent Increase (Versus FY 2019)
LC Net Sales	63.9	77.2	87.0 (75.0)	23.1	36%

**Pretreatment System:
Expand New Product Line**

- Improve line of specialized pretreatment units.



- Strengthen multi-analyte pretreatment systems.



- Develop robotic pretreatment systems.



**Autonomous Lab
autonomous lab system
(at the Kobe University
biofoundry)**

**Strengthen Core Products:
Satisfy Expanding Demand**

- High-end LC: Drug discovery, nucleic acid medicines, CDMOs, etc.

Nexera XS inert



New Nexera Series



- Standard and integrated LC models: Generic drugs, etc.



i-Series

- Supercritical SFC: Drug discovery, etc.



Nexera UC prep

- Preparative LC



Nexera prep

Expand/Improve Specialized Systems and Consumables

- Specialized analyzers

- Application systems



Integrated HPLC systems that support slide-in columns

LC-Raman system

- Columns and consumable parts



Shim-pack Scepter series

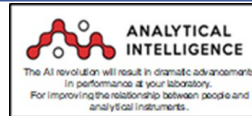


Monolithic columns



Vials (sample vials)

**Networking with IoT/AI
Compatibility**

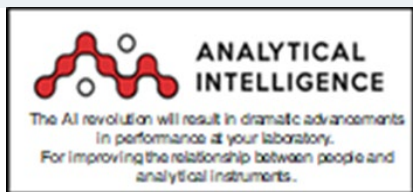


II. Strategic Measures in the Current Medium-Term Management Plan—4/10

Strengthening Key Businesses for Analytical & Measuring Instruments Segment (2)

—Mass Spectrometers (MS)—

Policies: (1) Expand product lines, (2) Strengthen application systems, and (3) Strengthen databases



Units: Billions of yen	FY 2019 Results	FY 2021 Results	FY 2022 Plan (Original Plan)	Increase (Versus FY 2019)	Percent Increase (Versus FY 2019)
MS Net Sales	40.5	46.6	53.0 (51.0)	12.5	31%

Points for Strengthening MS

Improve Basic Performance



Smaller Size



Utilize AI Technology



Compliance with Regulations



Expand/Improve Product Lines

Increase Competitiveness and Expand Market Share



LCMS-8060NX



GCMS-TQ8050NX

Expand Application Fields



MALDI-8030



DPiMS-2020
(direct MS)

Develop New Fields



IMScope QT
(imaging mass spectroscope)



**LCMS-2050
(compact MS)**

Strengthen Application Systems

Toxicological drugs: GCMS/LCMS; **Residual pesticides:** GCMS/LCMS;
COVID-19 testing
Fully-automated clinical: LCMS; **Dementia:** Amyloid MS;
Microorganism identification: MALDI

Strengthen Databases

Metabolites, lipids/disease markers, forensics, environmental pollutants, functionally-enhanced foods, residual pesticides, infectious diseases
novel coronavirus, aroma, and AI software



II. Strategic Measures in the Current Medium-Term Management Plan—5/10

Strengthening Businesses outside Japan

—Strengthening Innovation Centers and Manufacturing/Sales Functions—

- **Innovation Centers:** Create new value that can be offered by working together with customers to help improve understanding and solve customer challenges.
- **Strengthen manufacturing and sales:** Build the foundation for additional business growth by strengthening sales bases in North America and Europe and production locations in China.

Europe: Clinical, pharmaceuticals, and green innovation

Innovation Center



- Engaged in joint clean energy research with TotalEnergies SE and two European universities (FY 2020)

Sales and Service (Analytical/Medical)



- Strengthen sales bases

China: Address domestic product incentives

Innovation Center



- Established Environmental Innovation Center (FY 2020)

- Started contract analysis business for automotive industry with Foxconn (FY 2020)

Manufacturing (Industry)



- Completed new hydraulic equipment plant (FY 2020)

Manufacturing (Analytical/Medical)



- Strengthen production capacity to address domestic product incentives and local production for local consumption

North America: Pharmaceuticals, clinical, and green innovation

Innovation Center



- Jointly developed semi-preparative supercritical fluid LC system with a pharmaceutical organization in the U.S. (FY 2020)
- Opened Application Center (FY 2021)

Sales and Service (Analytical/Medical)



- Acquired Core Medical Imaging, Inc. as new SMS U.S. branch office (FY 2020)
- Strengthen sales bases
- Announced results from joint research with Providence Cancer Institute (Oregon State, U.S.) (FY 2021)
- Signed agreement with Rakuten Medical, Inc. (California State, U.S.) to jointly develop and commercialize medical equipment (FY 2021)

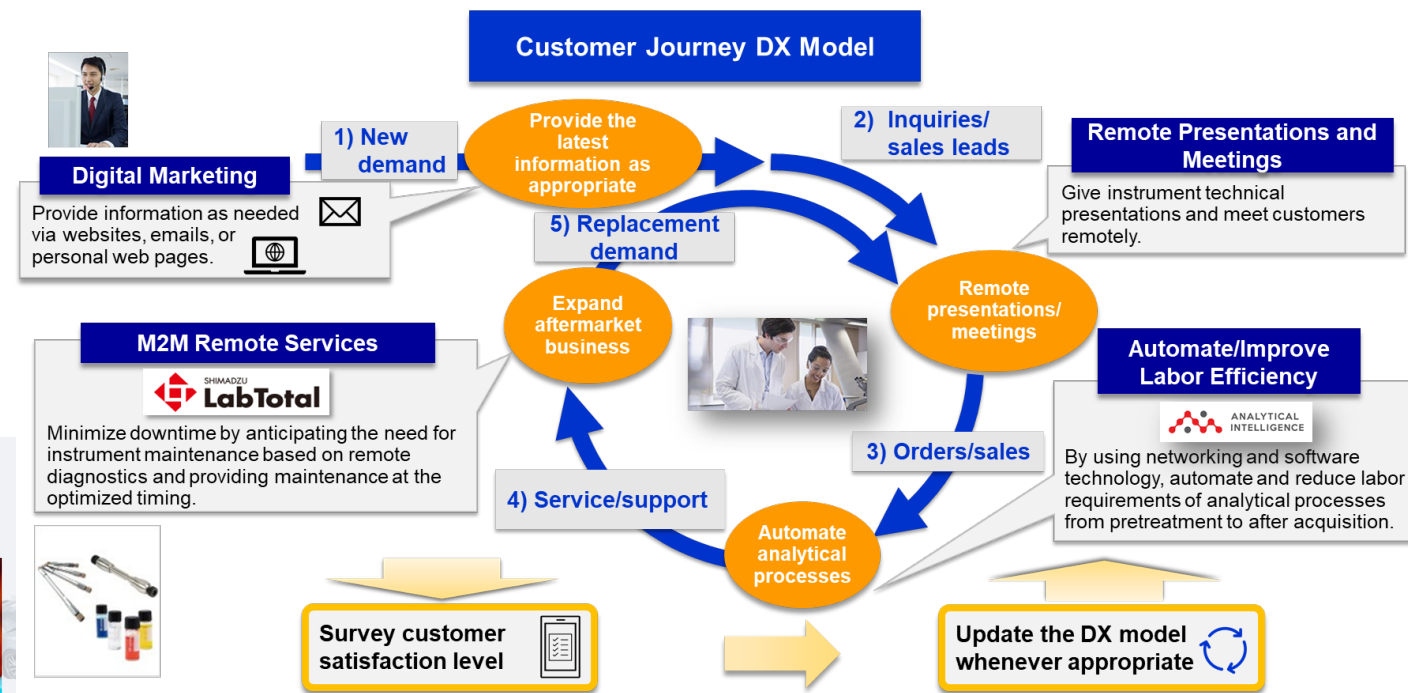
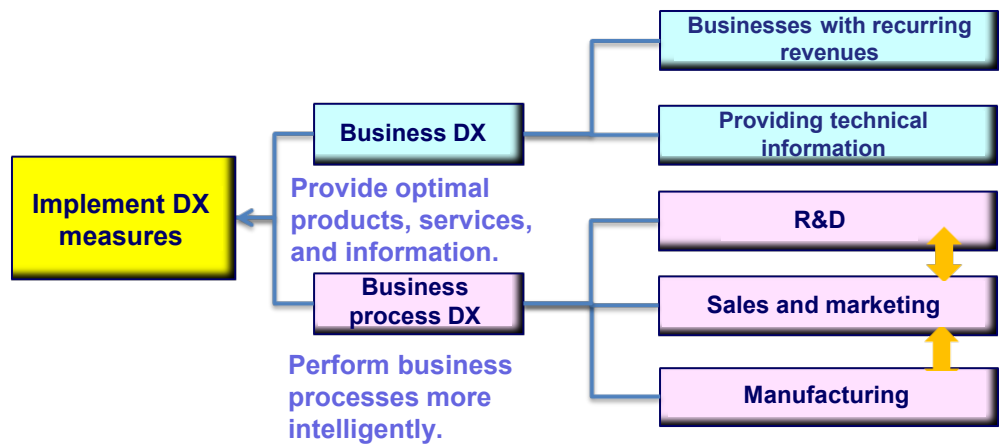
Asia: Mainly pharmaceuticals, clinical, and food safety

- SAP and Changi General Hospital in Singapore opened joint research laboratory for clinical testing and individualized treatment (FY 2020)

- Application development
- R&D
- Major sales subsidiaries
- Manufacturing
- Sales and service
- ★ Innovation Centers

Implementing DX Measures

- Globally expand/improve offering of optimized products, information, and services (business DX) and continue performing business processes more intelligently to support such offerings (business process DX).
- Strive to further improve contacts with customers, increase customer satisfaction levels, and achieve high-quality real-time decision-making.



Train human resources that can utilize data science, AI, and other such technologies

II. Strategic Measures in the Current Medium-Term Management Plan—7/10

Strengthening Businesses with Recurring Revenues

—Deploying New Businesses with Recurring Revenues Using AI/IoT Technologies—

- Use AI, IoT, or other technologies to launch new forms of business that generate subscription income or other recurring revenues.
- Also build and maintain a foundation of data platforms necessary for such businesses.



Improve Quality of Life Using Body Data or Other Medical Information

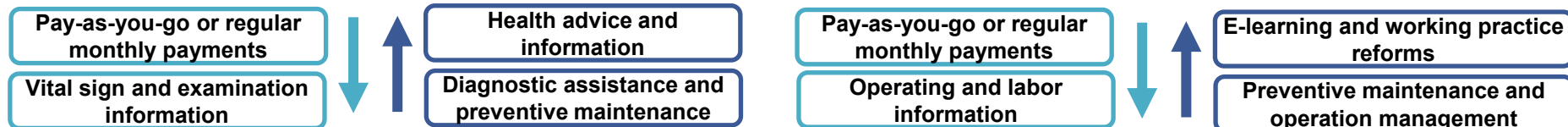


Individuals, medical institutions, etc.

Reduce Labor Requirements and Improve Productivity of Development, Manufacturing, and Inspection Processes



Companies and research institutions (measurement technicians, operators, etc.)



Start Businesses with Recurring Revenues

Data Platform
 —Use IoT/AI to collect/analyze data, expand customer contacts, and establish closer relationships—

Aim to offer consumables, software, and services optimized for the actual customer objectives and usage conditions.

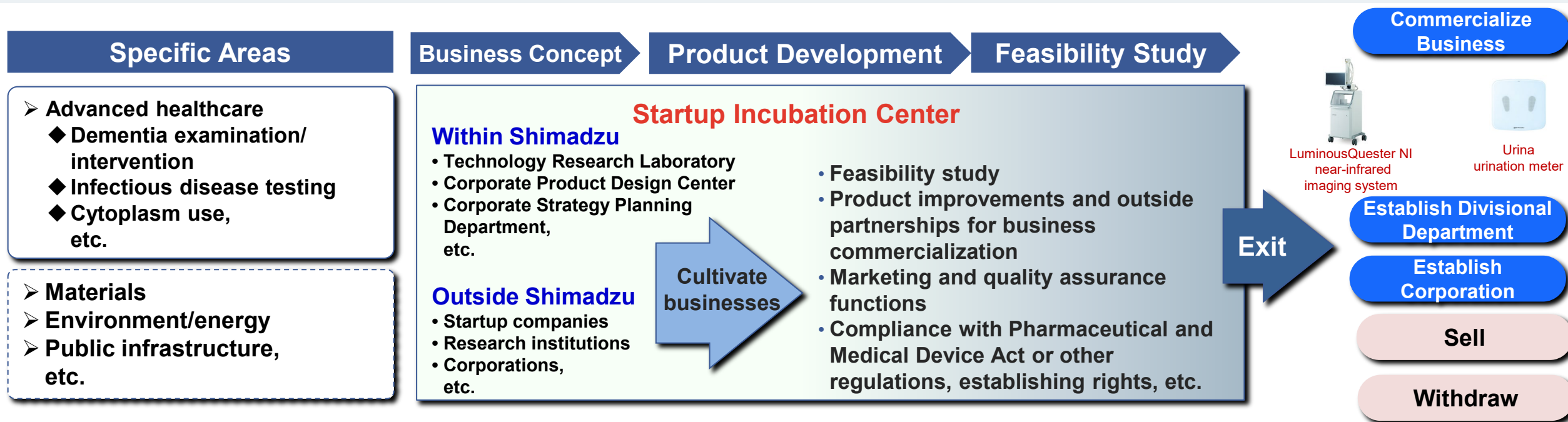
Expand/improve consumables product lines and services.
Build infrastructure, such as an e-Shop.

Strengthen partnerships with strategic and business partners.



Expanding Business in Four Growth Fields—Promoting Solutions in Society—

- Specify specific areas to target for creating new businesses, such as dementia examinations/interventions or infectious disease testing, develop products and perform feasibility studies involved in those target areas, and transfer the businesses to one of the business segments. Alternatively, also function as a gatekeeper that reviews exit strategies, such as selling or withdrawing from the business.
- Engage in open innovation intended to commercialize the business and create systems for actually solving challenges in society.



Accelerate Open Innovation

Work together with strategic partners or startups to ensure the products/technologies that solve challenges in society are actually implemented in society.



II. Strategic Measures in the Current Medium-Term Management Plan—9/10

Measures for Achieving Carbon Neutrality

Measures in Existing Businesses “Forming Global Partnerships” and “International Standardization”

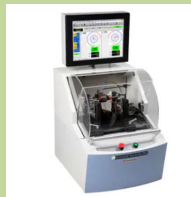
Electric Vehicle Applications (Batteries, Motors, and Lighter Materials)



Materials analysis



Materials testing



Dynamic balancing



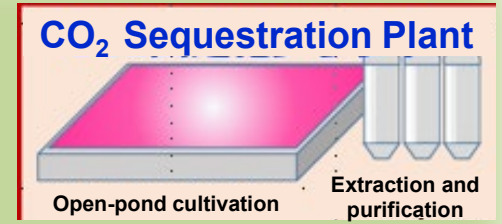
Degradation observation

Future Measures “CO₂ Capture and Storage” and “CO₂ Reuse (Bioproduction)”

CO₂ Capture and Storage



Establish and internationally standardize QC methods for CO₂-sequestering concrete.



Currently partnering with Symbiobe, a Kyoto University startup company, to research using photosynthetic bacteria for sequestering CO₂.

Hydrogen, Ammonia, Methanation, and Bio-Combustion



Analyzing gases and analyzing/testing materials for processing



CO₂ Reuse (Bioproduction)

Substitution of Petrochemical Resources with Biologically-Derived Raw Materials

Investment in and joint operation of Bacchus Bio innovation Co., Ltd., a Kobe University startup company with advanced biofoundry technology (biological production systems). The purpose is to avoid using fossil fuels and reduce carbon dioxide emissions.



II. Strategic Measures in the Current Medium-Term Management Plan—10/10

Implementing Sustainability Management

- Created the **Shimadzu Group Sustainability Charter**, and the **Sustainability Management Implementation Policy** with an emphasis on contribution through business activities.
- **Sustainability Committee established:**
The committee will approve and finalize each activity and KPI specified by the Sustainability Management Implementation Policy, manage its process, discuss reviewing it, and report the results to the Board of Directors.

Shimadzu Group Sustainability Management Implementation Policy

Supply Corporate Value to Society Based on Three Key Topics and Strengthen the Management Base in Terms of Both Organizations and Human Resources

Key Topics	Description of Main Measures		
Contributing to the Well-Being of Mankind	Contributing to clinical testing and infectious disease countermeasures	Contributing to drug development	Contributing to food development
Contributing to the Well-Being of the Earth	Addressing carbon neutrality	Contributing to new material development	Reducing the environmental impact of products
Contributing to Advancements in Industry	Contributing to manufacturing of semiconductor equipment	Contributing to maintenance and conservation of public infrastructure	Contributing to improving the efficiency of logistics
Corporate Governance Strengthening the Foundation for Management and Growth	Training global human resources, managing based on diversity and inclusion, implementing DX measures, managing employee health, ensuring governance and economic security, strengthening corporate compliance, and managing natural disasters		



Actual results may differ from forecasts about future performance indicated in this document, due to disasters, or fluctuations in economic conditions, exchange rates, technologies, or a variety of other external factors.