Mid-Long Term Management Plan
“MLMAP2023”

HORIBA, Ltd.

September, 2019
MLMAP2023

1. Looking back on the current plan (MLMAP2020)
2. Numerical Targets
3. Priority Measures
4. Segment Strategy
5. Regional Strategy
6. Capital Strategy
MLMAP2023

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20-Year Operating Results and Progress of MMLMAP2020

Achieved continuous sales growth and high profitability through proactive investments with a long-term perspective

1.8 times sales growth in 8 years from 2010

Sales  Operating income  Net income

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales</th>
<th>Operating income</th>
<th>Net income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>74.4</td>
<td>2.5</td>
<td>0.0</td>
</tr>
<tr>
<td>2002</td>
<td>105.6</td>
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<td>2004</td>
<td>118.5</td>
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<tr>
<td>2005</td>
<td>123.4</td>
<td>14.9</td>
<td>8.6</td>
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<tr>
<td>2006</td>
<td>170.0</td>
<td>19.3</td>
<td>12.8</td>
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<tr>
<td>2007</td>
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<tr>
<td>2015</td>
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<td></td>
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<tr>
<td>2016</td>
<td>210.5</td>
<td>28.8</td>
<td>22.3</td>
</tr>
<tr>
<td>2017</td>
<td>213.0</td>
<td>25.0</td>
<td>17.5</td>
</tr>
<tr>
<td>2018</td>
<td>25.0</td>
<td>30.0</td>
<td>20.0</td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Billions of yen)

MLMAP2020 Profit plan

- Operating income: ¥30bn ⇒ Achieved 96% in 2018
- Net income: ¥20bn ⇒ Achieved in 2018

[Change of Fiscal Year-end] For the year ended December 31, 2006, the accounting term for HORIBA, Ltd. and its domestic consolidated subsidiaries in Japan was only 9 months and 11 days or only 9 months as a result of a change in the fiscal year-end to December 31. The fiscal year ended March 2006 is stated as 2005, the fiscal year ended March 2005, as 2004, and the fiscal year ended March 2004, as 2003.

HORIBA, Ltd. and its domestic consolidated subsidiaries had formerly recognized revenue mainly on a shipping basis. However, starting from fiscal 2016, HORIBA, Ltd. and its domestic consolidated subsidiaries changed their revenue recognition method to a completion-date-of-installation or delivery-date basis under the terms and conditions of the relevant contracts. The amounts in or before fiscal 2015 are not retrospectively revised.
Main Topics, 2016-2019 [M&A/Capital Investment]

Investing to expand business scale and areas at a time of drastic change in industrial structure

New businesses acquired through M&As

- [UK] MIRA Ltd. Strengthening the engineering capability
- [DE] FuelCon AG Strengthening the battery measurement business
- [US] MANTA Instruments, Inc. Strengthening particle measurement business
- Micro-blood analysis system business acquired from ROHM Co., Ltd
Main Topics, 2016-2019 [M&A/Capital Investment]

Investing to expand business scale and areas at a time of drastic change in industrial structure

Strengthening development/production capabilities: ¥40bn invested in 3 years

- [US] Optical measurement technology
  Strengthened the production/R&D base

- [US] Semiconductor business
  Strengthened the R&D base

- [US] Process measurement
  A new base for facility business

- [US] Support to a new institute of the University of California

- [IN] Test center for automotive

- [KR] Consolidation of production/sales/service base

- [JP] Aso plant
  The 5th expansion

- [JP] Battery evaluation test facility

- [JP] HORIBA BIWAKO E-HARBOR

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Background in Launching MLMAP2023

Urgent need to respond to the accelerated changes in business environment

- Significant changes in the trend of automotive industry
  - Electrification/Autonomous driving
  - New entrants

- Accelerated advanced in technology development
  - AI/loT
  - Bio/healthcare
  - Advanced materials

- Increasing interest in solving social issues
  - Environmental protection
  - SDGs/ESG investments
  - Workstyle reform/Diversity

Open up a new era toward 2023, the 70th-anniversary year of HORIBA’s founding, by utilizing all HORIBA resources under its new management team from 2018

MLMAP2023 Slogan ONE STAGE AHEAD
MLMAP2023

1. Looking back on the current plan (MLMAP2020)
2. Numerical Targets
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### Numerical Targets of MLMAP2023

<table>
<thead>
<tr>
<th>Metric</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>¥300.0bn</td>
</tr>
<tr>
<td>Operating income</td>
<td>¥40.0bn</td>
</tr>
<tr>
<td>Net income</td>
<td>¥30.0bn</td>
</tr>
<tr>
<td>EPS (Earnings Per Share)</td>
<td>¥711</td>
</tr>
<tr>
<td>ROE</td>
<td>10% or more</td>
</tr>
<tr>
<td>Total return ratio</td>
<td>Target around 30%</td>
</tr>
</tbody>
</table>

**Foreign exchange rate assumptions:** ¥110/US$, ¥125/Euro
Numerical Targets of MLMAP2023

Advancing to the next stage with continuous growth in sales and profit

1.5 times growth from 2018

Sales
Operating income
Net income

CAGR (Billions of yen)

Sales
2015→2018:7.2%
2018→2023:7.3%

Operating income
2015→2018:14.2%
2018→2023:6.8%

Net income
2015→2018:20.1%
2018→2023:6.1%

2001-2005
2006-2010
2011-2015
2016-2020
2019-2023

2015-2018
2018-2023

2015
2018
2023

Sales
Operating income
Net income


2019 (fore.)

2001-2023

MLMAP2023

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1. Market Oriented Business
   To develop analysis and measurement solutions, utilizing HORIBA's core technologies, in the leading three business fields of the mega trend

2. Solution Provider Beyond Life Cycle Management
   To support customers’ core businesses from all aspects – from product introduction to replacement

3. HORIBA Core Values “The Next Stage of Super Dream Team”
   To enhance the organizational structure that fosters resilient human resources, which are the driving force of all businesses
   BlackJack Project/Stained Grass Project/HORIBA Premium Value

MLMAP2023 Slogan “ONE STAGE AHEAD”
Concentrate R&D resources into specific analysis/measurement technologies. By applying the core technologies, develop products efficiently in our five business segments, which target different markets, and launch them.
## Priority Measure 1: “Market-Oriented Business”

To develop analysis and measurement solutions, utilizing HORIBA’s core technologies, in the leading three business fields of the mega trend:

<table>
<thead>
<tr>
<th>Market</th>
<th>Energy &amp; Environment</th>
<th>Materials &amp; Semiconductor</th>
<th>Bio &amp; Healthcare</th>
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</thead>
<tbody>
<tr>
<td>Mobility, Power generation, Environmental preservation, Water</td>
<td>Advanced materials, Materials for semiconductor</td>
<td>Clinical diagnostic, Pharmaceutical, Drug discovery, Cells, DNA</td>
<td></td>
</tr>
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### Main Targets

<table>
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</table>

### Corresponding business segments

<table>
<thead>
<tr>
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</table>

Aims to transform itself into an entity that accelerates innovation by "measurement" technologies.
Priority Measure 2: Becoming a “Solution Provider Beyond Life Cycle Management”

To support customers’ businesses from all aspects, from installation to replacement

Products/Solution Packages

Support the efficient operation of customers’ facilities
Accurate facility management utilizing data from operations

Consulting with analysis technologies
Offer new value via analysis of measured data

Data from operations

Measured data

Integrate equipment sales with high-value-added support

Always with you: HORIBA is always on the customer’s side
Priority Measure 3: “HORIBA Core Values”
The next stage of the Super Dream Team

### BlackJack Project

To bring about changes in our awareness and activities, the project has yielded a system for sharing front-line operating information with the management.

- The cumulative number of project themes exceeds 9,000; collectively they are an integral part of HORIBA’s corporate culture.
- Leads the activities to turn in profits from investments

#### Policy for 2023

- Expand the BlackJack Project overseas (Asia)
- Make it a group-wide project

#### Bring the management closer to the front-line globally

HORIBA’s World Cup goes to the best proposal from reps from several nations. In 2018, India won first prize.

### Stained Glass Project

HORIBA’s diversity promotion project

#### [Themes]

- 2014: Women’s empowerment
- 2017: Connect the Management/HR/Front-line

#### Diversity promotion

- Improvement in productivity, corporate competitiveness
- Job satisfaction
- Comfortable working environment
- Self-fulfillment
- Working environment improvement

#### Policy for 2023

- Promote personnel exchanges among group companies
- Promote activities globally
- Pursue both job satisfaction and comfortable working environment
- Lead the personnel system reform

Adopted a remote-work system in Jan. 2019

The Nadeshiko Brand award ceremony

Certified for the first time in 2019
Priority Measure 3: “HORIBA Core Values”
Improve asset efficiency with HORIBA Premium Value

Budgeting by using HORIBA’s unique KPI (subtracting “Cost of Capital” from “Operating Income”) that measures capital efficiency

HORIBA Premium Value

- Operating income
- Cost of Capital
  
  \[\text{Invested Capital} \times \text{Internal WACC}\]

A simple calculation method, easily adopted by group companies
Use of “Operating Profit,” monitored by business divisions every day
Evaluate in absolute monetary terms, easily capturing effects and targets achievement

Approach for the enhancement of capital efficiency

Flexible Procurement
Well recognized globally

Ultimate Supply Chain
Reform of entire production processes with partner companies

Proper Working Capital
Adequate global control of Accounts Receivable and Inventory

*CCC: Cash Conversion Cycle
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Vision of MLMAP2023

Application-driven business

Provide the best applications in four business areas.
Establish a position as an indispensable partner in the automotive development field.

- Emissions: Engine/exhaust gas
- Energy efficiency: Electrification
- CAV: Connected/autonomous driving system
- Enterprise Data Management for Development: Overall vehicle-related R&D

Target for 2023
Sales of ¥120bn; Operating Income of ¥12bn
Emissions: Strengthening the existing areas and challenging growth areas

### Solutions for fuel efficiency and exhaust gas regulations (Strengthening the existing areas)

<table>
<thead>
<tr>
<th>Globally, continuing tighter regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible applications for emission measurement</td>
</tr>
<tr>
<td>Exhaust gas analyzers</td>
</tr>
</tbody>
</table>

Providing diverse regulation-related line-ups from all directions

### Optimal powertrains (Challenging growth areas)

Electrification leads to an increase in system development, shifting away from single-unit (i.e., engine, battery, or motor) development

Propose a “package” to solve issues related to analysis and measurement

<table>
<thead>
<tr>
<th>Efficient application for RDE* is imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a lab environment for accurate Real Driving Emissions simulations</td>
</tr>
</tbody>
</table>

Provide systems that help shorten the development process

**Real Driving Emissions Regulations**

<table>
<thead>
<tr>
<th>Maximize the Group synergy and provide total solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel cell test system</td>
</tr>
<tr>
<td>Engine test system</td>
</tr>
</tbody>
</table>

*Real Driving Emissions Regulations*
Energy Efficiency: Maximize the electrification business

Contribute to optimizing the development process of electric vehicles

Establishment of the “CELL Zero” test facility for evaluation of batteries for electric vehicles (Scheduled to open in HORIBA BIWAKO E-HARBOR in 2019)

Objective of “Test in the Loop”
Proposal of a highly-efficient R&D environment for electric vehicles

- Data measurement in virtual environment of a real vehicle
- Performance verification, using a real vehicle with the embedded simulation model

Provide measurement solutions with new values with the “Test in the Loop” total evaluation system

2023: Achieve sales of ¥10bn in the electrification business
CAV*: Acquisition of Initiatives in Advanced Technology

* CAV: Connected and Autonomous Vehicle

“Drive/Turn/Stop & Protect” - Support R&D from all directions (HORIBA MIRA’s initiatives)

Drive/Turn/Stop

- Multi-purpose tests for autonomous vehicles
  - Verification of telecommunication function, vehicle safety/limit control range

Test facilities to verify an autonomous parking function

Open in 2020

Protect

- Opened the Vehicle Resilience Technology Centre
  - Support of R&D of autonomous driving technologies
  - Comprehensive approach that combines cyber security and EMC

Open in April 2019

In cooperation with the UK government and local universities, HORIBA aims to take initiative in the R&D domain of autonomous driving technologies

HORIBA MIRA’s initiatives were broadcasted in Japanese TV station KBS Kyoto’s news program "KyobizX". (Go to HORIBA’s website to see the program in Japanese at HORIBA’s official Facebook.)
Enterprise Data Management for Development: Contributing to optimizing overall vehicle R&D

Contributing to the front-loading of automotive development (reduction in man-hours from shorter development process)

Core system that integrates and manages analysis and measurement data

Knowledge in engineering and testing

Conventional development process

① Front-loading the peak of workload

Efficient R&D process

1. Front-load R&D processes
   - Centralize various data
   - Utilize applications with high reproducibility and simulation software
2. Improve man-hours efficiently by reducing the amount of rework

Start planning

Required workload

Man-hours for R&D

New car launch

Contributing to realizing efficient R&D processes
Vision of MLMAP2023

HORIBA as a worldwide player who analyzes the entire earth

Provide various solutions in the global market: ranging from approaches to environmental regulations, to raising production efficiency

Business growth in emerging countries [Approaches to environmental reg.]
Open up markets in developed countries [Improve industrial processes]
Grow globally in the water monitoring business

Target for 2023
Sales of ¥28bn; Operating Income of ¥2.8bn
Global Trend and Growing Needs of Environmental Measures

Increased awareness on global environmental preservation
⇒ contribution to productivity improvement

Phase to improve industrial processes

Phase for improving the environment

Approaches to environmental regulations

Product sales/Repair/Maintenance

High productivity/Optimization/Data management

Developing countries
Emerging countries
Developed countries

Phase of social growth

Demand
Growth in Emerging Countries/Developed Countries

Emerging Countries (Southeast Asia, etc.)

**Needs**

- Improve air pollution
- Enhance localization of production and engineering
- Develop business with local partners

**Gas**

- Respond to local needs
- Stack gas analyzers
- Air pollution analyzers

**Water**

- Improve water quality
- Automatic total nitrogen/phosphorus monitoring system

**Developed Countries**

**Approaches to environmental regulations**

- New measurement solutions for production processes
- Capture demand for factory-related water quality/gas measurement
- Comprehensive support in semiconductor manufacturing

**Industrial process improvement**

- Higher productivity in the petrochemical sector
- Improve combustion efficiency in power plants
- Realize a skill transfer and reduction in manpower in facility management

**Approaches to env. reg. + Industrial process improvement**

- Industrial process measurement
- Electronic industry/market
- Data management

**Improve local production and engineering**

- New measurement solutions for production processes
- Capture demand for factory-related water quality/gas measurement
- Comprehensive support in semiconductor manufacturing

**Improve air pollution**

- Higher productivity in the petrochemical sector
- Improve combustion efficiency in power plants
- Realize a skill transfer and reduction in manpower in facility management

**Enhance localization of production and engineering**

- Industrial process measurement
- Electronic industry/market
- Data management

**New measurement solutions for production processes**

- Industrial process measurement
- Electronic industry/market
- Data management

**Capture demand for factory-related water quality/gas measurement**

- Industrial process measurement
- Electronic industry/market
- Data management

**Comprehensive support in semiconductor manufacturing**

- Industrial process measurement
- Electronic industry/market
- Data management

**Realize a skill transfer and reduction in manpower in facility management**

- Industrial process measurement
- Electronic industry/market
- Data management

**Develop business with local partners**

- Automatic total nitrogen/phosphorus monitoring system
- Water monitoring system for water supply facilities

**Bring successful business models to other countries**

- Automatic total nitrogen/phosphorus monitoring system
- Water monitoring system for water supply facilities

**Enhance air pollution**

- Automatic total nitrogen/phosphorus monitoring system
- Water monitoring system for water supply facilities

**New measurement solutions for production processes**

- Industrial process measurement
- Electronic industry/market
- Data management

**Capture demand for factory-related water quality/gas measurement**

- Industrial process measurement
- Electronic industry/market
- Data management

**Comprehensive support in semiconductor manufacturing**

- Industrial process measurement
- Electronic industry/market
- Data management

**Realize a skill transfer and reduction in manpower in facility management**

- Industrial process measurement
- Electronic industry/market
- Data management
Global Growth in the Water Measurement Business

Integrated into HORIBA Advanced Techno Co., Ltd.

Process & Environmental

Semiconductor

Scientific

Water measurement business

Sales expansion in the tap water monitoring market

Kuala Lumpur (Malaysia)

Sao Paulo (Brazil)

Tap water quality monitoring system

Monitoring of water discharge in the tap water infrastructure investment

Undertake data management and realize reduction in manpower

はかるEXpress

Free installment of analyzers ⇒ Charge for measured data

Utilize existing technologies and sales network and aim to grow globally
Vision of MLLMAP2023

To be a Preferred Partner

Expand product portfolio from small to large scale analyzers. Accelerate global business expansion.

- Enhancing strength: Sales development in the small- and medium-sized market
- Entering the large-scale market: Access to the hospital market
- Capturing emerging markets: Enhance business in India/China

Target for 2023
Sales of ¥40bn; Operating Income of ¥4bn
Expand Business Domains

Use of proprietary technologies and alliances for further expansion

<table>
<thead>
<tr>
<th>Test Category</th>
<th>Hematology</th>
<th>Clinical Chemistry</th>
<th>Immunology</th>
<th>Coagulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market size</td>
<td>¥0.35tn</td>
<td>¥2tn</td>
<td>¥2tn</td>
<td>¥0.2tn</td>
</tr>
<tr>
<td>(HORIBA's estimates)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hospitals**
- Large hospitals
- Testing centers
- Small- and medium-sized hospitals
- Alliance

**Private practitioners**
- Hospital units and surgery rooms (POCT)

**Small- and medium-sized market:** Expand application to clinical chemistry and Immunology. Hematology: Enter the large-scale market.

**Enhance strength in the small- to medium-sized market**

**Business environment**
- Increase in testing in the background of the aging society
- Increase in importance of clinical diagnosis by primal care doctors

**HORIBA’s strategy**
- Use μTAS* technologies, acquired from ROHM, to develop products with hematology plus extra functions
- Support process optimization at the customer site by introducing the data management system.
- Expand product line-ups in the clinical chemistry category through business alliance.

*μTAS: Micro Total Analysis System acquired from Rohm Co., Ltd.
Entering Large-scale Markets and Focusing on Particular Markets

Expand business in large-scale markets

Business environment
- European market: centralization of testing at large-scale laboratories and productivity improvement
- Emerging markets: increase in testing

HORIBA’s strategy
- Expand sales of HELO Solution, the first product for a new large-scale market
- Alliance with Siemens Healthcare Diagnostics Inc. to enter the large-scale market

Strengthen global network/supply chain

Markets to focus on
- R&D center
- Supply application
- Reagent factory

R&D: product development in Japan and France
Production/sales: enhance local capabilities in the markets to focus

Enhance HORIBA’s strength and expand into a new stage.
Vision of MLMAP2023

Shape the market, sell the solution

Evolve the company into a comprehensive supplier that provides high-value-added solutions in all semiconductor manufacturing processes, from R&D to aftermarket services.

Enhance the existing fields
Extend coverage
Taking up challenges in new fields

Establish a robust R&D network and supply chain

Target for 2023
Sales of ¥77bn and Operating Income of ¥17.7bn
Semiconductor Market Projection and HORIBA’s Market Share in Mass Flow Controllers (MFC)

HORIBA’s global market share in MFC (RH)

Market size by semi. device type (LH)

- Others
- Analog
- Discrete and Opto Electronics
- Flash Memory
- DRAM
- Logic

Semiconductor market projection: Data from VLSI Research, modified by HORIBA
Market share of MFC: HORIBA’s estimates (as of August 2019)
Extend Coverage and Take up the Challenges of New Fields

Provide high-value-added solutions in semiconductor manufacturing processes

**R&D**

Contribute to evaluation/analysis of next-gen materials

- Raman spectrometers
- Elemental analyzers
- Fully automated ellipsometer
- Nano particle analyzers
- X-ray analytical microscope
- Cathodo-luminescence measurement system

**CVD/Etching process**

- Increase in processes due to miniaturization and multi-layering
- Cope with a wide variety of materials

**Wet/Lithograph process**

- Deal with micro particles, pay attention to safety
- Extreme rays applied for EUV, etc.

**SPE’s controlling process**

Expand flow control applications as new solutions related to a vacuum chamber

- Pressure monitoring
- Gas/liquid flow control
- Measurement/Analysis

**Challenge to add new value**

- Various analysis and measurement technologies and experiences
- Use of big data for the process control of SPE to optimize manufacturing

Contribute to improving productivity in semi-manufacturing processes

Accumulate analysis and measurement data
Establish a Solid R&D Network and Supply Chain

Global R&D system

- Enhance R&D operations in Kyoto and Fukuchiyama (Japan), and Reno (US)
  - Reflect customers’ needs in R&D
  - Aim to gain higher market share
  - Advanced Technology Center

1. Research next-gen semiconductor manufacturing process
2. Standardize flow control

- Develop key components
- Capture local needs → cooperate with a Japanese team

Enhance supply capacity

- Production system in Japan
  - Accelerate local engineering in China

- Increase production capacity and supply timely
  - Facility expansion to boost production volume
  - Kyoto: production of high-end models
  - China: supply mass flow controllers tailored for local needs

Fukuchiyama Technology Center
Reno Technology Center
Beijing, China

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Vision of MLMAP2023

Core Technology Provider

Apply the technology cultivated as a founding business in the megatrend market. Leading “HORIBA in Technology” in cooperation with each segment

<table>
<thead>
<tr>
<th>Advanced materials</th>
<th>Bio</th>
<th>Energy, Semiconductor, Water</th>
</tr>
</thead>
</table>

Customized technology to meet all customer needs; Local engineering for local needs

Target for 2023

Sales of ¥35bn and Operating Income of ¥3.5bn
## Advanced Materials and Bio Field

Maximize synergies by effectively using resources from three global bases

<table>
<thead>
<tr>
<th>HORIBA FRANCE (France)</th>
<th>HORIBA (Japan)</th>
<th>HORIBA INSTRUMENTS (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A leading company in spectroscopic analysis</td>
<td>Utilizing various technologies as a &quot;headquarter of core technology&quot;</td>
<td>Deploy applications that satisfy customer needs</td>
</tr>
<tr>
<td>Increase market shares by more applications in various fields</td>
<td>Flexible product customization → Leading in industrial processes</td>
<td>Strengths in bio, healthcare, and nano technology areas</td>
</tr>
</tbody>
</table>

- Boasting a 30% global share* of Raman spectrometer
- Jobin Yvon (Horiba France at present) 200th anniversary in 2019
- Founding technology [pH meter]
- A wide range of technologies [Water monitoring/Particle-size distribution analysis/Elemental analysis]
- Opened a new base on the East Coast (2018) to strengthen R&D and production capacity
- Targeting the bio market [Fluorescence and absorbance spectrometer/Nanoparticle tracking analysis system]

Provide innovative solutions that support the technological progress in the world

**[Advanced materials]**
- Advanced nano-level spectroscopic analysis technology
- Approach to 2D materials and micro plastics

**[Bio]**
- Develop applications for analysis of cosmetics, pharmaceuticals, viruses, and vaccines

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*In-house survey as of August 2019

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Energy, Semiconductor, and Water

Collaborate with other segments to realize business expansion by using their sales channels

**Energy and automotive industry**
- Increase in demand for secondary battery material analysis

**Semiconductor**
- Growth of Chinese semiconductor manufacturers → Increase in demand for analysis and evaluation of semiconductor materials

**Water quality measurement**
- Efficient water management at water treatment plants
- Seek to contribute to solving environmental issues centered on water

**Profit from electrification in China**
- Increase in demand for battery material analysis
- Accelerate industry penetration of spectral analysis technology

Aiming to increase volume by expanding the range from R&D to production processes

- Raman spectrometer
- Nanoparticle analyzer
- Dissolved organic matter in water
- Fluorescence measuring device

Held the raman/fluorescence spectroscopy symposium
One-to-One Customization & Global Engineering

Accelerate product development for customer needs

One to One Customization
Customization & Engineering

Inline/online measurement
Contributing to improving production processes

Analysis efficiency enhancement
(work efficiency)

Efficiency through automation

Imaging
Efficiency by visualization of analysis data

Highly-difficult measurement samples
Proposal for analysis using a new method

Strengthen uniqueness in global engineering

Founding Technology
➢ Propose products for customers based on analysis of their needs
➢ Secure high profitability through diversity in production selectivity

Global Engineering

New pH meter (announced in August 2019)
Launch of global products, made in Singapore
Sharing light and passion
200 years of optical innovation

www.horiba.com/en_en/200years
MLMAP2023

1. Looking back on the current plan (MLMAP2020)
2. Numerical Targets
3. Priority Measures
4. Segment Strategy
5. Regional Strategy
6. Capital Strategy
Vision of MLMAP2023

Think Big. Grow Bigger.

Strengthen sales and the service network, rooted in the local society
Provide high-value-added analysis/measurement technologies

Enhance engineering/facility capability
- Establish local bases to strengthen engineering capability
- Provide products and technologies that meet local needs

Enhance supply network
- Capture demand in clinical testing along with population growth
- Enhance a supply network to maintain stable volume and quality

2023 plan
Sales of ¥13.0bn

<table>
<thead>
<tr>
<th>2023 MLMAP</th>
<th>ATS*</th>
<th>P&amp;E</th>
<th>Medical</th>
<th>Sci</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>¥7.5bn</td>
<td>+37%</td>
<td>+20%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 2015 Results | | |
| ¥3.2bn | +26% | +15% |

Capture demand in a volume zone and become a driver of future growth

*ATS: Automotive Test System

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Current Status and Changes in China Market

China: Rapid growth and changes in the market
Growth and technological improvement of local companies

HORIBA: Invest aggressively and realize further growth in China at the time of changing trends in technology

1. Strengthen “production capacity” for the Chinese market
2. Strengthen “R&D capability” for the Chinese market
   - Establish an application center
   - Collect cutting-edge information

Plan for 2023

Sales of ¥47.0bn

<table>
<thead>
<tr>
<th>2023 MLMAP</th>
<th>P&amp;E</th>
<th>ME</th>
<th>Semi</th>
<th>SCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATS</td>
<td>13%</td>
<td></td>
<td></td>
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</tbody>
</table>

2019 Result: ¥27.8bn

<table>
<thead>
<tr>
<th>2015 Result</th>
<th>P&amp;E</th>
<th>ME</th>
<th>Semi</th>
<th>SCI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+16%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2015 Result: ¥20.5bn

Implement the strategy at “China speed” and drive growth
MLMAP2023

1. Looking back on the current plan (MLMAP2020)
2. Numerical Targets
3. Priority Measures
4. Segment Strategy
5. Regional Strategy
6. Capital Strategy
Shareholder Return and Financial/Investment Strategy

Shareholder return policy

- Dividend payment + Share buyback = 30% of consolidated net profit* to be targeted
- Retained earnings will be used for strategic investment (i.e., CAPEX, M&A)

*In fiscal 2013, the policy was shifted from the non-consolidated dividend payout ratio, based on non-consolidated net income of HORIBA, Ltd., to the total return ratio, based on HORIBA’s consolidated net income.

Financial/investment strategy

1. Invest effectively from a long-term perspective
2. Utilize intra-group financing
   - Utilize financial group companies (US, Europe, UK and China)
3. Utilize HORIBA Premium Value (PV) to improve asset efficiency

Per-share dividend and total return ratio

Free cash flows for every five years

- Improve capital efficiency by utilizing the PV
- Invest effectively from a long-term perspective

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Thoughts on ESG investment and SDGs

Under the corporate motto "Joy and Fun," all HORIBARIANs understand the nature of ESG/SDGs investment and realize growth of each business.

[Basic Policy]
We contribute to realizing the sustainable society advocated by SDGs* by offering analyze and measurement technologies which lead technology innovation that supports security, safety, and health for people while contributing to global environmental conservation.

HORIBA supports ESG investment and SDGs to be active globally and strives to disclose clear information.

Symbol for MLMAP2023: Hawk

Find the targets from a heightened perspective
Accomplish the objectives at the fastest speed
Thank you
References
## Numerical targets (vs 2018, vs 2019)

(Billions of yen)

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>MLMAP2020</th>
<th>MLMAP2023</th>
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<tbody>
<tr>
<td></td>
<td>Results</td>
<td>Forecast</td>
<td>Plan</td>
<td>Plan</td>
</tr>
<tr>
<td><strong>Sales</strong></td>
<td>210.5</td>
<td>213.0</td>
<td>250.0</td>
<td>300.0</td>
</tr>
<tr>
<td><strong>Operating income</strong></td>
<td>28.8</td>
<td>25.0</td>
<td>30.0</td>
<td>40.0</td>
</tr>
<tr>
<td><strong>Operating income%</strong></td>
<td>13.7%</td>
<td>11.7%</td>
<td>12.0%</td>
<td>13.3%</td>
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<tr>
<td><strong>Net income</strong></td>
<td>22.3</td>
<td>17.5</td>
<td>20.0</td>
<td>30.0</td>
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<tr>
<td><strong>EPS (Yen)</strong></td>
<td>529</td>
<td>414</td>
<td>475</td>
<td>711</td>
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<tr>
<td><strong>ROE</strong></td>
<td>14.3%</td>
<td>10.5%</td>
<td>10% or more</td>
<td>10% or more</td>
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</tbody>
</table>
# Numerical targets (by Segment)

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<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Auto</td>
<td>79.6</td>
<td>85.0</td>
<td>100.0</td>
<td>120.0</td>
<td>+51%</td>
<td>7.7</td>
<td>8.0</td>
<td>10.0</td>
<td>12.0</td>
<td>+56%</td>
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<tr>
<td>P&amp;E</td>
<td>19.3</td>
<td>20.0</td>
<td>25.0</td>
<td>28.0</td>
<td>+45%</td>
<td>2.0</td>
<td>2.0</td>
<td>2.5</td>
<td>2.8</td>
<td>+38%</td>
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<tr>
<td>Medical</td>
<td>26.0</td>
<td>28.0</td>
<td>40.0</td>
<td>40.0</td>
<td>+54%</td>
<td>1.8</td>
<td>2.0</td>
<td>4.0</td>
<td>4.0</td>
<td>+119%</td>
</tr>
<tr>
<td>Semi</td>
<td>57.7</td>
<td>50.0</td>
<td>50.0</td>
<td>77.0</td>
<td>+33%</td>
<td>17.0</td>
<td>12.0</td>
<td>10.0</td>
<td>17.7</td>
<td>+4%</td>
</tr>
<tr>
<td>Scientific</td>
<td>27.7</td>
<td>30.0</td>
<td>35.0</td>
<td>35.0</td>
<td>+26%</td>
<td>0.2</td>
<td>1.0</td>
<td>3.5</td>
<td>3.5</td>
<td>+1,483%</td>
</tr>
<tr>
<td>Total</td>
<td>210.5</td>
<td>213.0</td>
<td>250.0</td>
<td>300.0</td>
<td>+42%</td>
<td>28.8</td>
<td>25.0</td>
<td>30.0</td>
<td>40.0</td>
<td>+39%</td>
</tr>
</tbody>
</table>

(Billions of yen)
Transition of Symbol

MLMAP
Mid-Long Term Management Plan
2006-2010

MLMAP
Mid-Long Term Management Plan
2011-2015

MLMAP
Mid-Long Term Management Plan
2016-2020

MLMAP
Mid-Long Term Management Plan
2019-2023
Thank you

감사합니다  Cảm ơn
ありがとうございます  Obrigado
Dziękuję  Σας ευχαριστούμε
Grazie  मनुष्यवाद
Merci  谢谢
ขอบคุณครับ  Tack ska ni ha
Σας ευχαριστούμε  Gracias
Danke  شكرا
Большое спасибо