

Security code: 6258 February 2025

# Financial Results Explanatory Materials

FY2024 (March 2025)
Third quarter



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# **Company Profile**

Company Name	HIRATA Corporation
Address	111 Hitotsugi, Ueki, Kita, Kumamoto, 861-0198 Japan
Representatives	Yuichiro Hirata, President
Date Established	December 29, 1951
Capital	2,633 million yen
Our business	Manufacture and sales of various manufacturing line systems, Industrial robot and logistic equipment
Stock Exchange Listings	Tokyo Stock Exchange, Prime Market (Symbol:6258)
Employees	Consolidated 2,413 Non-Consolidated 1,529 **As of December 31, 2024
Plants and office	7 bases in Japan(4 bases in Kumamoto 1 each in Tochigi, Shiga, Tokyo)
Subsidiaries	3 subsidiaries in Japan(2 in Kumamoto, 1 in Tokyo) 9 overseas subsidiaries(America、Mexico、Germany、Singapore、Thailand、 Malaysia、2 in China、Taiwan)



# I. FY2024 Third Quarter Results (Consolidated)



# Financial Summary \*\*Third Quarter Cumulative Period

• Order The order received for semiconductor sector is on a recovery trend and exceeds the previous year, but it could not cover the decline in other automatic labor-saving equipment, resulting in a decrease compared to the same period last year.

• Sales Sales increased compared to the same period last year, driven by the progress in production of orders received primarily in the automotive sector.

Operating The operating profit

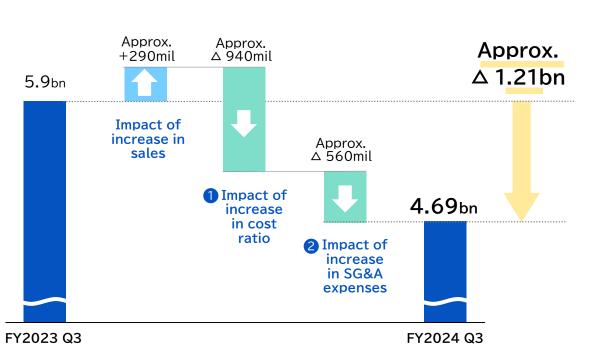
The operating profit decreased compared to the same period last year due to the early recognition of some expenses that were traditionally recorded in the fourth quarter, as well as increase in fixed cost, etc.

	FY2023 Q3	FY2024 Q3	YoY Change	
	Actual results	Actual results	Amount of +/-	Percentage of +/-
Orders Received	61,984	58,958	▲3,025	▲4.9%
Net Sales	61,008	62,323	1,314	2.2%
Operating Profit (Profit ratio)	<b>5,903</b> (9.7%)	<b>4,693</b> (7.5%)	▲1,210	▲20.5%
Ordinary Profit	6,103	4,502	<b>▲</b> 1,601	▲26.2%
Profit attributable to owners of parent	4,647	2,939	<b>▲</b> 1,707	▲36.7%
Backlog of Orders	62,980	62,040	<b>▲</b> 939	▲1.5%



## Factor Analysis on Changing Operating Profit

- Operating profit decreased approximately 1.21 billion yen from the same period of the previous year.
  - Main factors for increase: Increase in sales
  - Main factors for decrease: Increase in cost ratio in some projects and the selling and administrative expenses, etc.



# 1 Impact of increase in cost ratio

Cost ratio 77.3% ⇒ 78.8%

#### Main factors for increase in cost ratio

- Advance recognition of a portion of the bonus reserve that was traditionally recorded in Q4 (personnel expenses)
- Increase in labor costs due to wage hikes and staff increases
- Increase in depreciation expenses
- · The impact of rising prices.

# 2 Impact of increase in SG&A expenses

#### Main factors for increase in SG&A expenses

- Advance recognition of a portion of the bonus reserve that was traditionally recorded in Q4 (personnel expenses)
- Increase in labor costs due to wage hikes and staff increases



# Results by Segment

(Units in millions of Yen)		FY2023 Q3	FY2024 Q3	Amount of +/-	Percentage of +/-
	Total	61,984	58,958	▲3,025	▲4.9%
	Automobile	28,426	27,863	<b>▲</b> 562	▲2.0%
Received	Semiconductor	19,675	21,695	2,019	10.3%
orders	Other Automatic Labor- saving Equipment	12,081	7,741	<b>▲</b> 4,339	▲35.9%
	Others	1,800	1,658	<b>▲</b> 142	<b>▲</b> 7.9%
	Total	61,008	62,323	1,314	2.2%
	Automobile	26,842	30,061	3,218	12.0%
Net Sales	Semiconductor	20,126	21,409	1,282	6.4%
	Other Automatic Labor- saving Equipment	12,174	9,319	▲2,854	▲23.4%
	Others	1,864	1,531	▲332	<b>▲</b> 17.8%
	Total	5,903	4,693	<b>▲</b> 1,210	▲20.5%
	Automobile	1,917	2,688	770	40.2%
Operating	Semiconductor	3,652	2,544	▲1,108	▲30.3%
profit	Other Automatic Labor- saving Equipment	375	<b>▲</b> 525	<b>▲</b> 900	-
	Others (including elimination)	▲41	▲14	27	-
	Total	62,980	62,040	<b>▲</b> 939	▲1.5%
B. H. G.	Automobile	33,225	36,952	3,726	11.2%
Backlog of	Semiconductor	21,302	19,756	<b>▲</b> 1,546	<b>▲</b> 7.3%
orders	Other Automatic Labor- saving Equipment	7,927	4,716	▲3,210	<b>▲</b> 40.5%
	Others	524	614	90	17.2%



## Results by Segment: Automobile-related

- Received orders remained at a high level, matching the same period last year, thanks to the receipt of large orders for EV battery charging and discharging related equipment and EDU assembly lines.
- Sales increased compared to the same period last year, driven by the progress in production of EV-related orders (mainly EDU and battery-related) and internal combustion engine projects received in the previous term.
- Operating profit increased compared to the same period last year, despite being pressured by the timing change in the recognition of some expenses (from Q4 to Q2 and Q3). However, strong revenue growth, along with the promotion of price pass-through in individual projects and the restraint of development costs, led to improved profitability.

		FY202	3 Q3	FY202	4 Q3	YoY C	hange
		Results	Segment composition	Results	Segment composition	Amount of +/-	Percentage of +/-
Receive	ed orders	28,426	-	27,863	-	<b>▲</b> 562	▲2.0%
	EV	21,481	75.6%	19,814	71.1%	<b>▲</b> 1,666	<b>▲</b> 7.8%
	Others	6,945	24.4%	8,049	28.9%	1,104	15.9%
Net Sal	es	26,842	-	30,061	-	3,218	12.0%
	EV	20,481	76.3%	19,774	65.8%	<b>▲</b> 706	▲3.4%
	Others	6,361	23.7%	10,286	34.2%	3,925	61.7%
Backlog (	of orders	33,225	-	36,952	-	3,726	11.2%
Operatin	g profit	1,917	-	2,688	-	770	40.2%
Operating p	profit ratio	7.1%	-	8.9%	-	-	-



## Results by Segment: Semiconductor-related

- Received orders increased compared to the same period last year, as orders related to wafer transport showed a recovery trend from Q2 onwards.
- Sales increased compared to the same period last year, as production related to wafer transport progressed due to the increase in orders.
- Operating profit decreased compared to the same period last year due to the reduction of high-margin projects, as well as the timing change in the recognition of some expenses (from Q4 to Q2 and Q3) which pressured profits. Additionally, the rise in material prices and delays in price pass-through worsened the cost ratio.

		FY2023 Q3		FY202	4 Q3	YoY Change	
		Results	Segment composition	Results	Segment composition	Amount of +/-	Percentage of +/-
Receive	ed orders	19,675	-	21,695	_	2,019	10.3%
	Wafer transfer	13,054	66.3%	17,672	81.5%	4,618	35.4%
	Others	6,621	33.7%	4,022	18.5%	<b>▲</b> 2,598	▲39.2%
Net Sal	es	20,126	-	21,409	-	1,282	6.4%
	Wafer transfer	13,842	68.8%	15,002	70.1%	1,159	8.4%
	Others	6,284	31.2%	6,407	29.9%	122	2.0%
Backlog (	of orders	21,302	-	19,756	-	<b>▲</b> 1,546	<b>▲</b> 7.3%
Operatin	g profit	3,652	-	2,544	-	▲1,108	▲30.3%
Operating p	rofit ratio	18.1%	-	oration All Rights Reserved.	-	-	-

# **Hirata**

# Results by Segment: Other Automatic Labor-saving Equipment

- Received orders decreased compared to the same period last year, supported by orders related to organic EL and home appliances. Additionally, the postponement of customers' capital investments also had an impact.
- Sales decreased compared to the same period last year, as production of orders received progressed, but was negatively
  affected by customers postponing their investments, leading to sluggish performance.
- Operating profit decreased compared to the same period last year due to the deterioration of cost ratios in certain projects, as well as the timing change in the recognition of some expenses (from Q4 to Q2 and Q3), which were contributing factors to the decline.

	FY2023 Q3		FY2024 Q3		YoY Change	
	Results	Segment composition	Results	Segment composition	Amount of +/-	Percentage of +/-
Received orders	12,081	-	7,741	_	<b>▲</b> 4,339	<b>▲</b> 35.9%
Net Sales	12,174	-	9,319	-	▲2,854	▲23.4%
Backlog of orders	7,927	-	4,716	-	▲3,210	▲40.5%
Operating profit	375	-	<b>▲</b> 525	_	<b>▲</b> 900	-
Operating profit ratio	3.1%	-	<b>▲</b> 5.6%	-	-	-



## **Balance Sheet**

Assets	FY2023	FY2024 Q3	YoY change
Current Assets	88,554	89,017	463
Cash & deposits	10,652	9,629	<b>▲</b> 1,023
Trade receivables, etc.	59,504	61,527	2,023
Inventories	14,264	15,356	1,091
Others	4,131	2,503	<b>▲</b> 1,627
Tangible Assets	42,233	42,178	<b>▲</b> 55
Tangible fixed assets	27,437	26,605	<b>▲</b> 832
Intangible fixed assets	904	1,058	154
Investment & other assets	13,891	14,514	623
Total Assets	130,787	131,196	408

(Units in millions of Yen)

Liabilities	FY2023	FY2024 Q3	YoY change
Current liabilities	49,864	48,098	<b>▲</b> 1,765
Fixed liabilities	15,621	16,857	1,236
Total Liabilities	65,485	64,956	<b>▲</b> 529
Net Assets			
Total Net	65,302	66,240	937

#### Main factors for increase/decrease

- Cash and deposits decreased as payments for factory expansion costs and accounts payable progressed.
- Current liabilities decreased due to the reduction of accounts. payable and accrued expenses from factory expansion costs and bonus payments, as well as a decrease in contract liabilities resulting from the progress in production.
- Fixed liabilities increased due to the rise in large projects and long-term projects, leading to an increase in long-term borrowings.



# II. FY2024 Full Year Forecasts (Consolidated)



## **Full Year Forecast**

• We revised the full-year performance forecast for the fiscal year 2024 (ending March 2025).

	FY2023	FY2024	FY2024	YoY Change
	Results	Full year forecast (before revision)	Full year forecast (after revision)	Percentage of +/-
Net Sales	82,839	100,000	89,000	7.4%
Automobile- related	36,984	50,000	44,000	19.0%
Semiconductor- related	27,390	29,000	30,000	9.5%
Other Automatic Labor-saving Equipment	16,083	19,000	13,000	<b>▲</b> 19.2%
Others	2,381	2,000	2,000	<b>▲</b> 16.0%
Operating Profit (x)	6,047(7.3%)	7,500(7.5%)	6,400(7.2%)	5.8%
Ordinary Profit (x)	6,259(7.6%)	7,300(7.3%)	6,200(7.0%)	▲0.9%
Profit attributable to owners of parent (x)	4,344(5.2%)	4,700(4.7%)	<b>4,200</b> (4.7%)	▲3.3%



# Full Year Forecast - Highlights

- Sales forecast revised down from 100 billion yen to 89 billion yen, and operating profit forecast revised down from 7.5 billion yen to 6.4 billion yen.
- Still sales and profits are going to increase from the previous year.

## 1 Sales 100 billion yen → 89 billion yen

- The timing of revenue recognition for some projects has been pushed to the next fiscal year due to delays in customers' capital investment plans.
- In the field of other automation labor-saving equipment, several projects that were expected to have orders and sales in the current period have been excluded from the plan. Although efforts were made to recover through other projects, the initial plan was not met.

## 2 Operating Profit 7.5 billion yen → 6.4 billion yen

- Sales fell short of the initial forecast, resulting in insufficient revenue to cover fixed costs, which led to a decrease in profit margins.
- The cost ratio of some projects worsened.



# III. Capital Policy

# Transition and Forecast of Dividends and Dividend Ratio per Share

(Units in Yen)

	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024 forecast
Dividends per Share	40.00	65.00	65.00	90.00	100.00	120.00
Dividend Ratio (%)	23.8	16.6	25.2	21.9	23.9	29.6

Note: Dividend ratio is on a consolidated basis.

#### <Our approach to dividends>

We consider the return of profits to shareholders as one of the most important management challenges and strive to strengthen our financial position. Taking into account our consolidated performance and future business development, we aim for a consolidated dividend payout ratio of 20% or more as a general guideline, and we strive to provide stable and continuous dividends.

For the current fiscal year, we anticipate a year-end dividend of 120 yen.

Regarding future dividends, we will consider them within the framework of our capital policy, which includes shareholder return measures.



# **Acquisition of Treasury Shares**

• We have acquired treasury shares to improve capital efficiency, ensure returns to shareholders, and maintain flexibility and responsiveness in our capital policy in accordance with changes in the business environment.

Important matters	Contents
Type of shares acquired	Our common share
Total number of shares acquired	190,200 shares
Total acquisition cost of the shares	999,898,000 yen
Acquisition period	From November 11, 2024 to December 5, 2024 (contract date)

(For reference) Status of treasury share holdings as of December 31, 2024.

•Total number of issued shares 10,756,090

(including treasury shares)

•Number of treasury shares 559,293



# **Share Split**

 In order to improve the liquidity of our shares and further expand our investor base, we conduct a share split.

#### Method of the split

On the base date of March 31, 2025 (Monday), we will split the common shares held by shareholders recorded in the final shareholder registry as of that date at a ratio of 1 share into 3 shares.

## The number of shares increased due to the split

Total number of issued shares Before the split 10,756,090 shares After the split 32,268,270 shares (3-for-1 split)

Total number of shares authorized for issuance Before the split 37,000,000 shares After the split 111,000,000 shares

#### Schedule of the split

Scheduled record announcement date	March 14, 2025 (Friday)
Record date	March 31, 2025 (Monday)
Effective date	April 1, 2025 (Tuesday)



# IV. Topic



# Exhibiting at SEMICON Japan 2024

 We exhibited at SEMICON Japan 2024 to promote our semiconductor-related products and expand our sales channels and revenue.

		December 11(wed.) to 13(fri.), 2024	Exhibited products	PLP substrate transport robots, load ports, DD robots, etc.
	Venue	Tokyo Big Sight	Number of visitors to our booth	Approximately 2,000 people



Our booth



PLP substrate transport robot



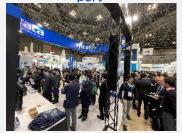
PLP substrate transfer load port



DD(Direct · Drive) Wafer atmospheric transport AI-equipped scara robot robot



Electric conveyer/ (panel display)



Many visitors

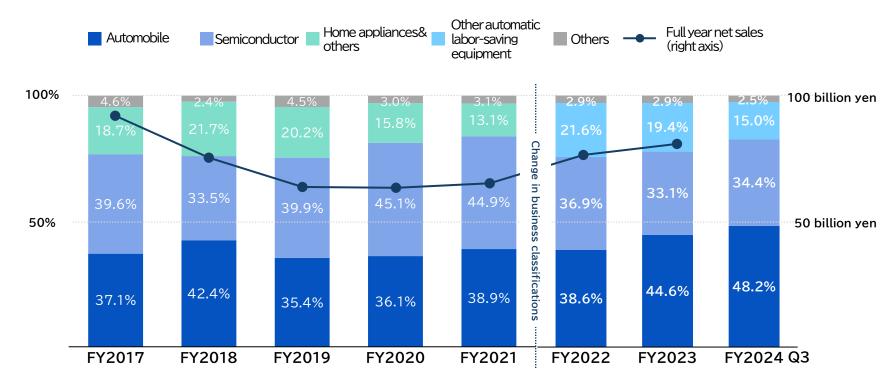
- Against the backdrop of increasing demand for generative AI, we exhibited products that inherit our air flow control technologies developed through wafer transport products, as the importance of PLP (Panel Level Packaging) technology in the later stages is on the rise.
- Additionally, we showcased direct drive robots for wafer substrates and electric conveyors for FOUP transport.
- Our booth was visited not only by industry professionals but also by institutional and individual investors, who listened attentively to our explanations.



# V. Reference Data



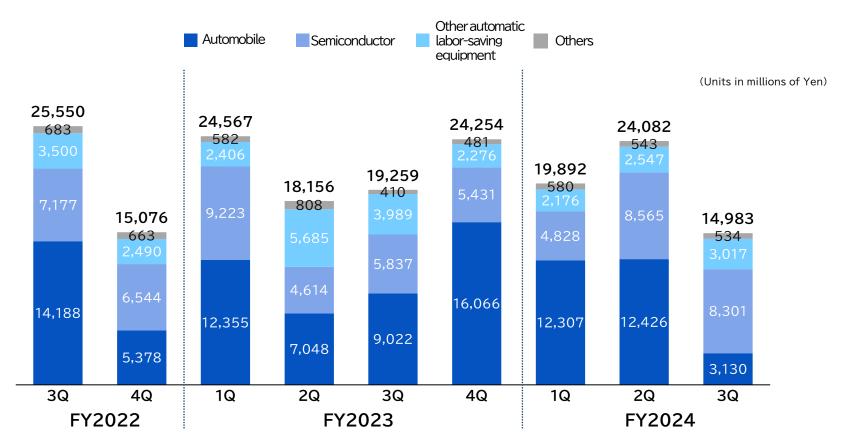
# Net Sales Composition Ratio by Business Segment



\*We changed our business classifications effective from FY2022.

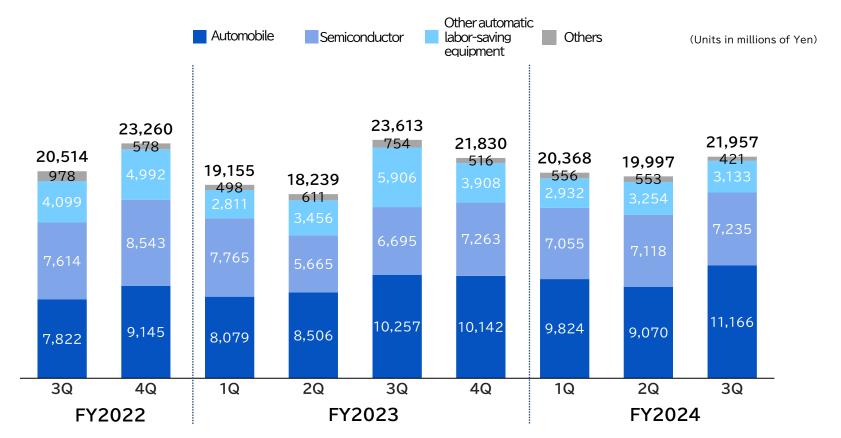
## Hirata

# Quarterly Trends by Business Segment [Received Orders]





# Quarterly Trends by Business Segment [Net Sales]



## Hirata

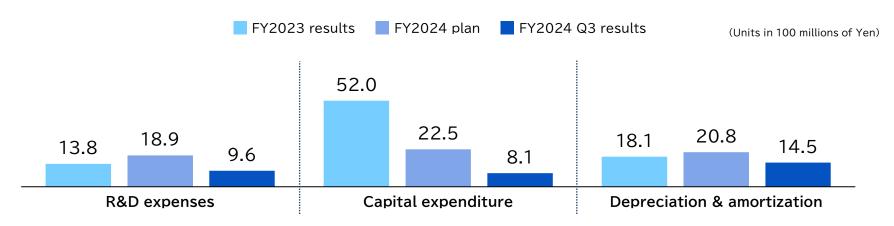
# Quarterly Trends by Business Segment [Operating Profit]

\*Others includes elimination





## R&D, CAPEX, Depreciation and Amortization

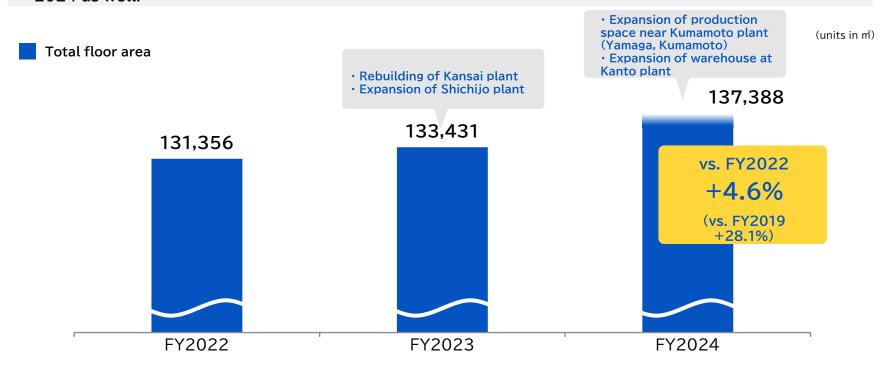


	Main contents	FY2024 plan	FY2024 Q3 results
R&D expenses	<ul> <li>Next generation product development in existing businesses</li> <li>Plant genetic resource related business, etc.</li> </ul>	Approx. 1.89 billion yen	Approx. 960 million yen
Capital expenditure	<ul><li>Plant rebuilding and expansion</li><li>Information system related, etc.</li></ul>	Approx. 2.25 billion yen	Approx. 810 million yen
Depreciation & amortization	<ul> <li>Factory reconstruction and equipment depreciation</li> </ul>	Approx. 2.08 billion yen	Approx. 1.45 billion yen



# Production space (Non-consolidated •End of period)

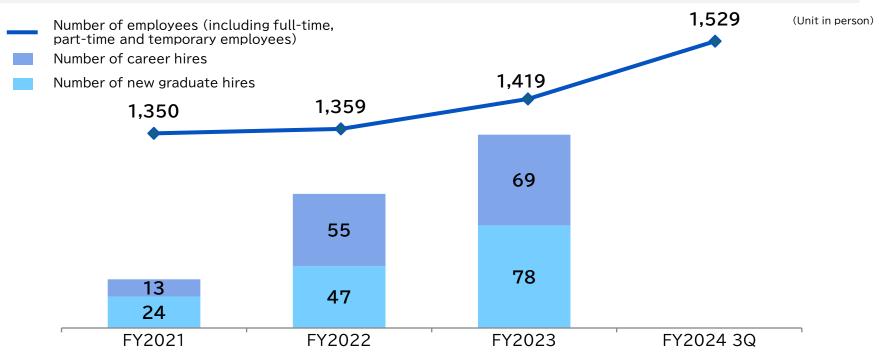
- We are actively working on the continuous expansion of production space to increase our production capacity.
- We secure production space in Yamaga City, which is adjacent to Kumamoto City, for the fiscal year 2024 as well.



# Hirata f period)

# Number of recruits · employees (Non-consolidated · End of period)

- In anticipation of business expansion, we are committed to ensuring a continuous supply of talented professionals.
- We are working on talent retention through various measures such as wage improvements, workstyle reforms, enhancing employee benefits, and providing quality education and training opportunities.





## Potential opportunities/risks from the main external environment and countermeasures

Assumed main external environment	Assumed opportunities / risks	Main countermeasures	
Foreign exchange Fluctuation	Change in price competitiveness against overseas competitors  Change in the effective purchase price of overseas procured goods	<ul> <li>Aggressive expansion of orders for overseas projects</li> <li>Promotion of local production overseas</li> </ul>	
Trends of the new US administration	Refraining from investment due to concerns about EV market trends Impact of tariff policies	<ul> <li>Understanding investment trends through close information exchange with customers</li> <li>Securing new customers and projects by expanding the scope of services</li> <li>Diversification of core business and optimization of resource allocation</li> </ul>	
Mass-production of new type batteries	Oppor tunity  Risk  Expanding business opportunities through the pursuit of new technologies and the ability to mass-production  Deterioration in profitability due to the burden of development factors	<ul> <li>Participating from the research and development stage of our customers and developing and proposing that meet their requirements</li> <li>Reducing R&amp;D expenses through external sourcing/procurement</li> </ul>	
Trends in the generative AI market	Oppor tunity  Risk  Increase in demand related to semiconductor related business  Missing orders due to lack of production capacity and human resources	<ul> <li>Improvement of QCD to obtain continuous inquiries from existing customers</li> <li>Resource investment in semiconductor field         <ul> <li>Pre-investment in human resources and production capacity in anticipation of an expansion in orders</li> </ul> </li> </ul>	
Concentration of semiconductor-related industries in Kumamoto and Kyushu	Oppor tunity  Risk  Increase in demand related to semiconductor related business  Intensification of the competition for talent acquisition	<ul> <li>Improvement of QCD to obtain continuous inquiries from existing customers</li> <li>Resource investment in semiconductor field         <ul> <li>Pre-investment in human resources and production capacity in anticipation of an expansion in orders</li> </ul> </li> <li>Recruiting new talent actively</li> <li>Implementing wage revisions and retention measures taking into account societal trends</li> </ul>	



# Topic: Receipt of large project orders

#### The list of large-scale purchase order projects we disclosed started from FY2023 and onwards

Business segment	Disclosu	ıre date	Outline of the equipment	Amount
	2023	June	EDU assembly equipment for EVs	More than 8 billion yen
Automobile -related	2024	January	Battery charging and discharging related equipment for EVs	More than 4 billion yen
		February	Engine assembly equipment for internal combustion engines	Approximately 13 billion yen
		May	Battery charging and discharging related equipment for EVs	Approximately 2.5 billion yen
		August	Battery charging and discharging related equipment for EVs	Approximately 5.6 billion yen
		August	EDU assembly equipment for EVs	Approximately 8.7 billion yen

- •The cumulative order amount of battery charging and discharging related equipment since the fiscal year 2022 has exceeded 15 billion yen.
- Our ability to handle large-scale projects and the track record of delivering battery charging and discharging related equipment for EVs have been highly evaluated, leading to continuous order acquisition.



# Strengthening our efforts in ESG management

2022	Oct.	Human Rights Policy is formulated and Procurement Basic Policy is revised.	
2023	Apr.	The Sustainability Promotion Committee is established.	
		Sustainability page is established in our web page and the dissemination of ESG information is been strengthened.	
	Sep.	We sign the UN Global Compact.	
	Oct.	Human rights due diligence is implemented.	
	Nov.	We express our support for the Keidanren's "Charter of Corporate Behavior."	
2024	Jan.	Code of Conduct of the Hirata Group is established.	
		Human Rights Respect Working Group within the Sustainability Promotion Committee is established.  FTSE Blossom Japan Index	
	Jun.	Selected as a constituent stock for:  [FTSE Blossom Japan Index]  [FTSE Blossom Japan Sector Relative Index]  FTSE Blossom Japan Sector Relative Index]	
	Nov.	We have endorsed the Keidanren Declaration for Biodiversity and Guideline.	

#### Hirata Business Overview: Main products of automobile-related business

 We continue to receive orders from North American automakers (Big three), North American emerging EV manufacturers, domestic electronic components manufacturers, focusing on EV related.

#### Main/Expansion Fields of EV-related business

#### Production equipment handled by Hirata



\*Completed product image

EDU assembly equipment

Main field

We manufacture EV-drive parts assembly equipment called EDU (Electric Drive Unit) combined with in-vehicle motors and gearboxes





2 IGBT·Inverter assembly equipment

Main field





We manufacture in-vehicle electronic components mounted on EVs and transmissions such as IGBT and inverters

Battery-related assembly equipment Expansion field





(Cell charging / discharge process)

We manufacture conveying equipment for charging and discharging processes that are part of the battery cell progress.

#### Main customers, competitors, superiority

#### EDU assembly equipment

North America

#### Customers

- North American automakers (Big three)
- North American emerging EV manufacturers

#### IGBT·Inverter assembly equipment

Japan

#### Customers

Domestic electronic components manufacturers

#### Battery-related assembly equipment

(cell charging/discharging process)

Japan

#### Customers

Domestic battery manufacturers

#### Hirata's superiority

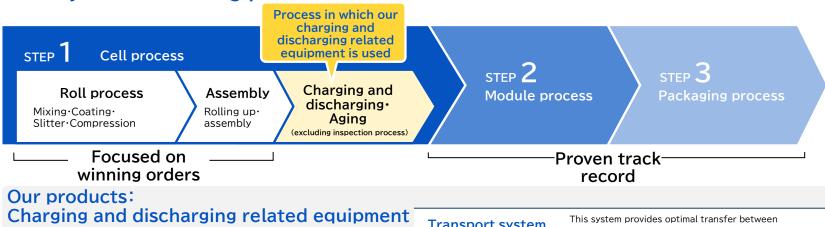
- Technical capabilities to handle large facilities, some of which exceed 1 km in total length, solely in-house
- A vast factory that allows us to build the customer's production line in our factory and install it on site after verifying the production capacity and quality
- Integrated system from development to production and maintenance
- Engineering ability to respond to customer requests

# Hirata

# Business Overview: Charging and discharging related equipment

- We have charge and discharge equipment that handles the final process of cell manufacturing, which is the "charging and discharging" process.
- We have a competitive advantage in systematization utilizing conveyance and stocking technologies.

### Battery manufacturing process



- The process of activating assembled cells (batteries) by repeatedly charging and discharging it to give it the functionality of a battery
- We deliver the system to the customer by incorporating the charging and discharging machines procured from external suppliers into the transport lines and automated warehouses manufactured by us.
- The differentiating factor is our conveying and storage technology.

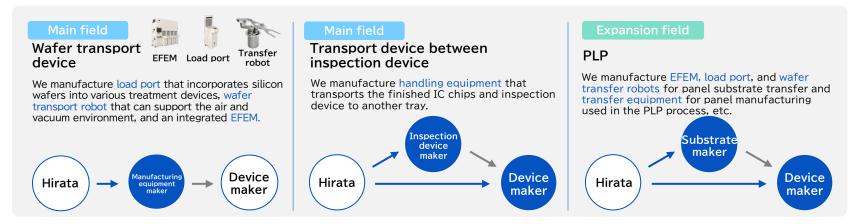
Transport system	This system provides optimal transfer between processes.
Warehouse system for aging	The system performs tests in high-temperature environments and measures the performance of cell voltages after a certain period of time in an automated warehouse.
Warehouse system for charging and discharging	It is used in a process in which a full charge and discharge are repeated several times. It takes several hours to set the charging capacity, charging speed, and number of repetitions.

# Hirata

# **Business Overview: Main products of semiconductor-related business**

• We continue to receive orders mainly for wafer transport devices for domestic device manufacturers and handling devices between inspection devices

#### Main/Expansion Fields of Semiconductor-related business



### Main customers, competitors, superiority

## Wafer transport device

Japan

#### Customers

Domestic manufacturing equipment manufacturers

## Transport device between inspection device

North America, Japan **Customers** 

- North American device makers
- Domestic inspection equipment manufacturers

#### **PLP**

North America, Europe, Japan

#### Customers

 North American device makers
 Domestic/European substrate manufacturers

#### Hirata's superiority

- A wealth of component lineup
- Knowledge technology required for customization and optimization to meet customer requirements
- Integrated system from development to production and maintenance
- Engineering ability to respond to customer requests



# **Business Overview : Wafer transport device**

 We design and manufacture load ports that take wafers into various processing equipment mainly used in the frontend process of semiconductor manufacturing, wafer transfer robots that transfer wafers, and EFEMs that integrate them.

#### Semiconductor manufacturing process

Process in which our wafter transfer devices are primarily used

Front-end process

#### Design

#### **Back-end process**

- Design for circuit and pattern
   Photomask creation
- Wafer fabrication
- · Making circuit pattern
  - Oxidation of wafer surface
  - ·Thin film formation
  - Pattern transcription of photomask
  - ·Ion implantation

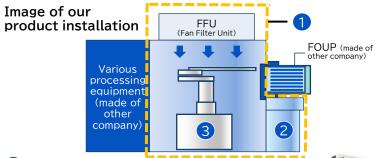
- Dicing
- · Die bonding
- · Wire bonding
- Packaging
- Commercialization and final inspection

#### Image of our product installation



Multiple EFEM/load ports are used on a single line because multiple EFEM/load ports are installed at each processing unit.

### Our main products



1 EFEM (Equipment Front End Module)
It is placed for each processing unit, with a wafer transfer robot inside and a load port on the front.

2 Load port

It opens and closes the lid on the back side of the FOUP  $\times$ , a device that makes up the EFEM, but is also sold as a stand-alone item.

3 Wafer transport robot

Wafers are removed from the FOUP and transferred to the processing equipment. After processing, the wafers are stocked back in the FOUP. It is a device that makes up the EFEM, but is also sold as a standalone item.







## **Business Overview: PLP**

• We design and manufacture conveyance equipment used in PLP, an advanced packaging technology that is expected to expand.

## Semiconductor manufacturing process

Process in which our devices are primarily used

#### Design

#### Front-end process

#### **Back-end process**

- · Design for circuit and pattern
- · Photomask creation
- · Wafer fabrication
- Making circuit pattern ·Oxidation of wafer surface
  - Thin film formation
  - ·Pattern transcription of photomask
  - ·Ion implantation

- Dicing
- Die bonding
- Wire bonding
- Packaging
- Commercialization and final inspection

## Difference of packaging process

#### Conventional packaging

Circuits are formed on wafters, and after cutting the chips into smaller pieces, they are individually bonded and encapsulated onto substrates to complete the product.

#### **WLP** (Wafer Level Package)

After cutting the chips individually, only the good chips are rearranged on the wafer, and then they are bonded and encapsulated onto the substrate while the chips are still on the wafer. They are then cut individually.

#### PI P (Panel Level Package)

After cutting the chips individually, only the good chips are rearranged on a square-shaped panel, and then they are bonded and encapsulated onto the substrate while the chips are still on the panel. They are then cut individually.

#### What is PLP (Panel Level Packaging) about?

- The packaging process involves rearranging numerous chips that have been individually cut after circuit formation onto thin. square-shaped substrates and then collectively molding them. This is a packaging technology called "PLP".
- In PLP, panel substrates larger than the standard 300mm wafer size, such as 510x515mm square, are commonly used.
- The panel substrate uses printed circuit boards, glass substrates for LCD panel manufacturing, and copper plates.

The chips that have been rearranged.



200mm

300mm





# Hirata

# Business Overview: Other Automatic Labor-saving Equipment

• We manufacture products for various industrial fields such as organic EL vapor equipment, assembly equipment for home appliances, and medical physics and chemical equipment.

#### Main/New Fields of Other Automatic Labor-saving Equipment

#### Main field

# Medical physiology and chemical equipment

We manufacture a system for sample tests (pathological tissue specimen device and fully automatic continuous thinning device).

#### Main field

# Assembly equipment for home appliances

We manufacture all equipment, including motor assembly equipment built into high-performance home appliances.

#### **Organic EL Vapor Equipment**

We are contracted to manufacture vacuum evaporation equipment for OLED panels.

## New field for monetization

Focused ultrasound therapy equipment

- We are jointly developing a focused ultrasound treatment device targeting pancreatic cancer with SONIRE Therapeutics Inc (Headquartered in Shinjuku, Tokyo, hereinafter referred to as SONIRE).
- We aim for non-invasive cancer treatment that fuses SONIRE's Ultrasonic Technology with our robot technology.
- Clinical trials in humans have started, and we have begun development of the next generation of mass production equipment.

#### Main customers, competitors, superiority

# Medical physiology and chemical equipment

Japan

#### Customers

Domestic medical specialty manufacturers

## Assembly equipment for home appliances

Asia

#### Customers

Asian home appliance manufacturers

#### Organic EL Vapor equipment

Japan

#### Customers

Domestic manufacturing device manufacturers

#### Hirata's superiority

- Extensive knowledge and expertise in production facilities and equipment in various fields
- Integrated system from development to production and maintenance
- Engineering ability to respond to customer requests



### Business Overview: High-Intensity Focused Ultrasound (HIFU) cancer treatment device

• We are applying our experience in specimen examination automation and robotics technology in the medical and scientific equipment field to enter the "treatment" domain.

# Hirata's existing business Biotechnology equipment department

Automation technology for specimen examination



Over 20 years of experience in medical devices (Class I: General medical devices)

#### New partner SONIRE Therapeutics Inc. (SONIRE)

Clinical, clinical trial, and focused ultrasound technology

Technologies developed over more than 10 years in collaboration with Tokyo Women's Medical University, Tohoku University, and Tokyo Medical University

Hirata's existing technology Robot division

Robot technology

Achievements in industrial robotics

# Entering new fields of business

SONIRE conducts clinical trials, while Hirata establishes the manufacturing system.

Joint development of cancer treatment devices

Aim for sales launch and mass production (Class II: Highly managed medical devices)

- Hirata partners with SONIRE Therapeutics Inc. (SONIRE) in the medical and scientific equipment field.
- We conduct joint development of a cancer treatment device for clinical trials in humans (targeting inoperable pancreatic cancer)
- We develop device for minimally invasive treatment that does not involve skin incisions or organ removal.
- The devices are supplied to multiple domestic hospitals, and SONIRE are conducting domestic clinical trials. Hirata is providing after-sales service post-delivery.
- In the future, we aim to refine the device's safety, usability, and design, and work towards the development of mass-produced devices and the establishment of a mass production system.
- We are planning to expand overseas, aiming for early delivery to overseas hospitals and after-sales service at our overseas locations.



# Cautionary statement with this document

Please be aware that the performance forecasts and future predictions mentioned in this document are based on the information available to us at the time of its creation. They are subject to potential risks and uncertainties, such as changes in economic conditions, competition with other companies, and exchange rates. Therefore, please note that actual performance may significantly differ from the future outlook mentioned or described in this document due to various factors, including changes in the business environment.