



# **ARE Holdings, Inc.**

# **Mid to Long Term Plan & Aspiration**

April 26, 2024

These forecast performance figures are based on information currently available to the company's management and certain assumptions judged rationally. Accordingly, there might be cases in which actual results materially differ from forecasts of this report.

# ARE Mid to Long Term Plan & Aspiration

## *Overview of ARE Mid to Long Term Plan & Aspiration*

*Business environment surrounding ARE*

*Growth strategy*

*Precious Metal Recycling Business*

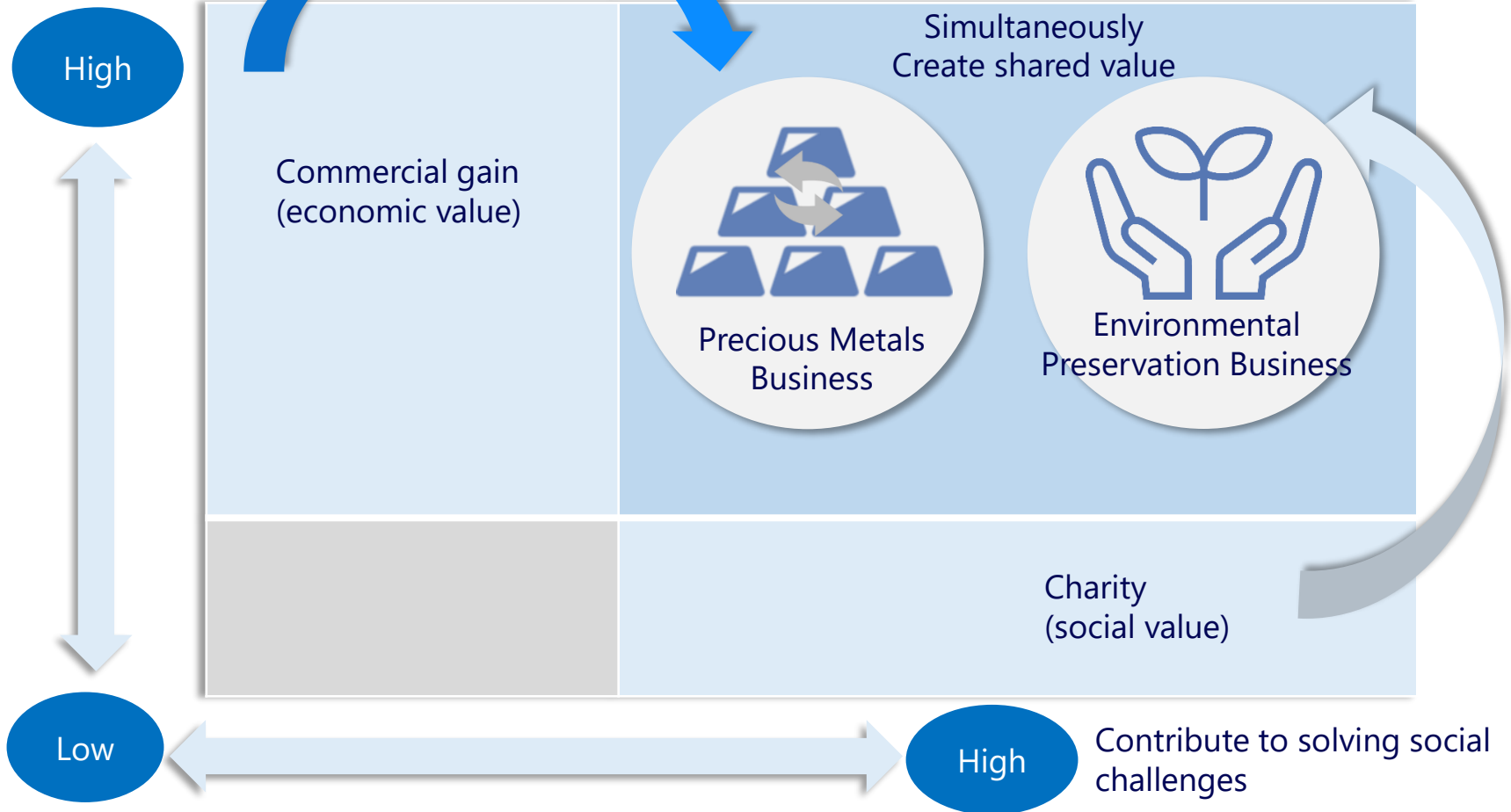
*North American Refining Business*

*Environmental Preservation Business*

*ESG*

Purpose:  
Totally Committed to Protecting the Natural  
Environment and Preserving

Seek shareholder  
values



### Social issues

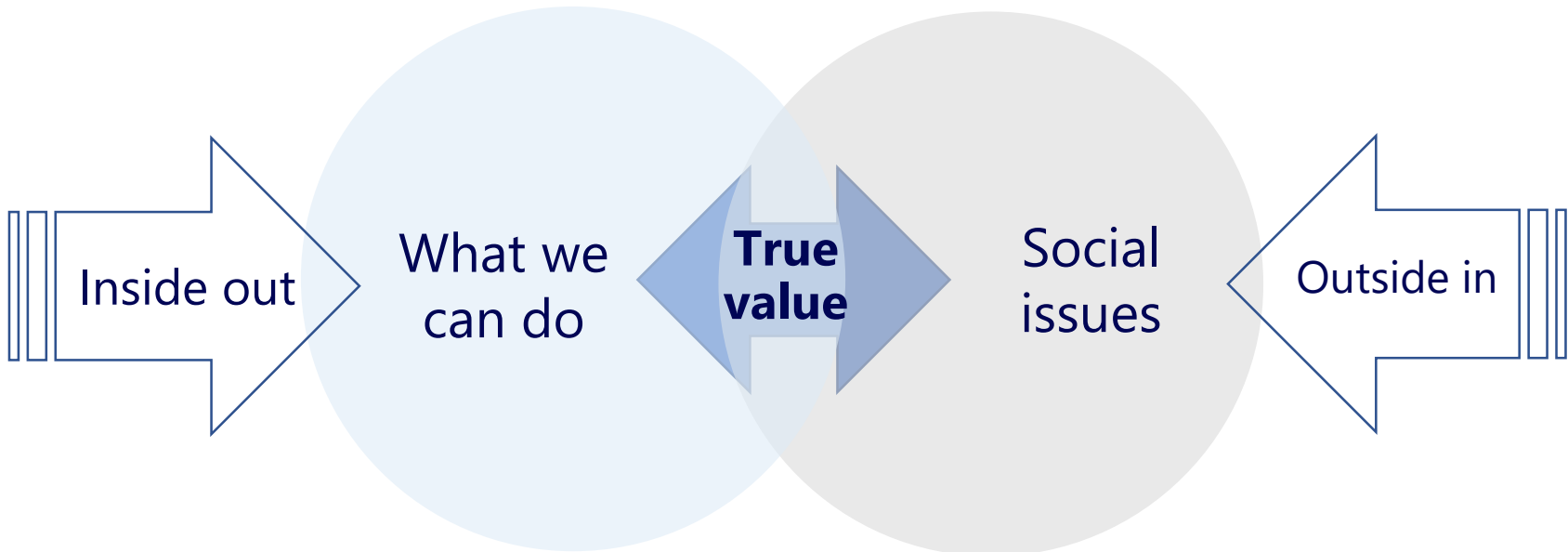
Promptly and simultaneously achieve circular economy and carbon neutrality

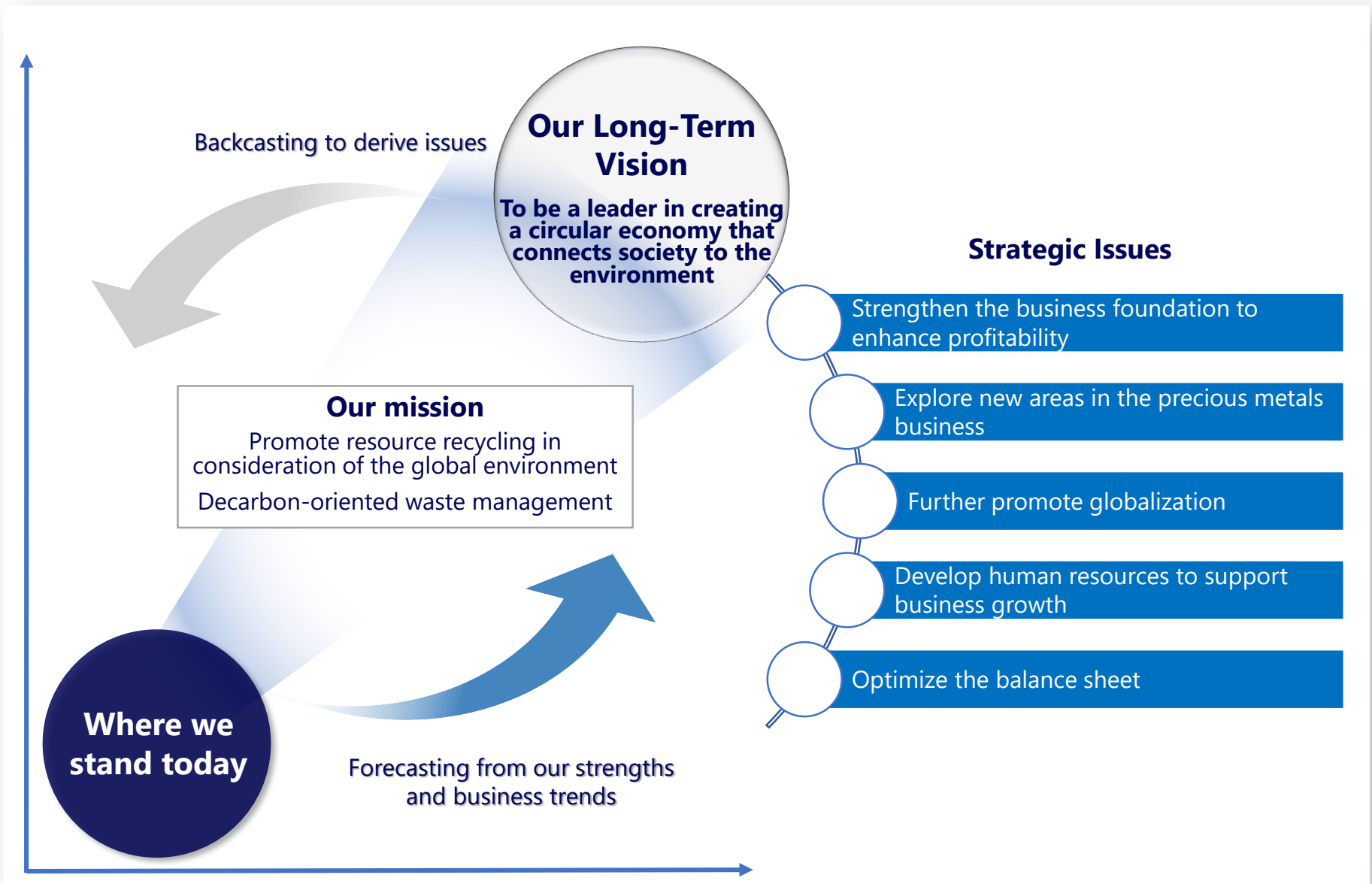
### Industry issues

Create large-scale solutions for social issues incl. digitalization jointly with industry peers and between the artery and vein of industries

### Human issues

Empathy and engagement to solve social issues and to grow business; embark on activities that contribute to society





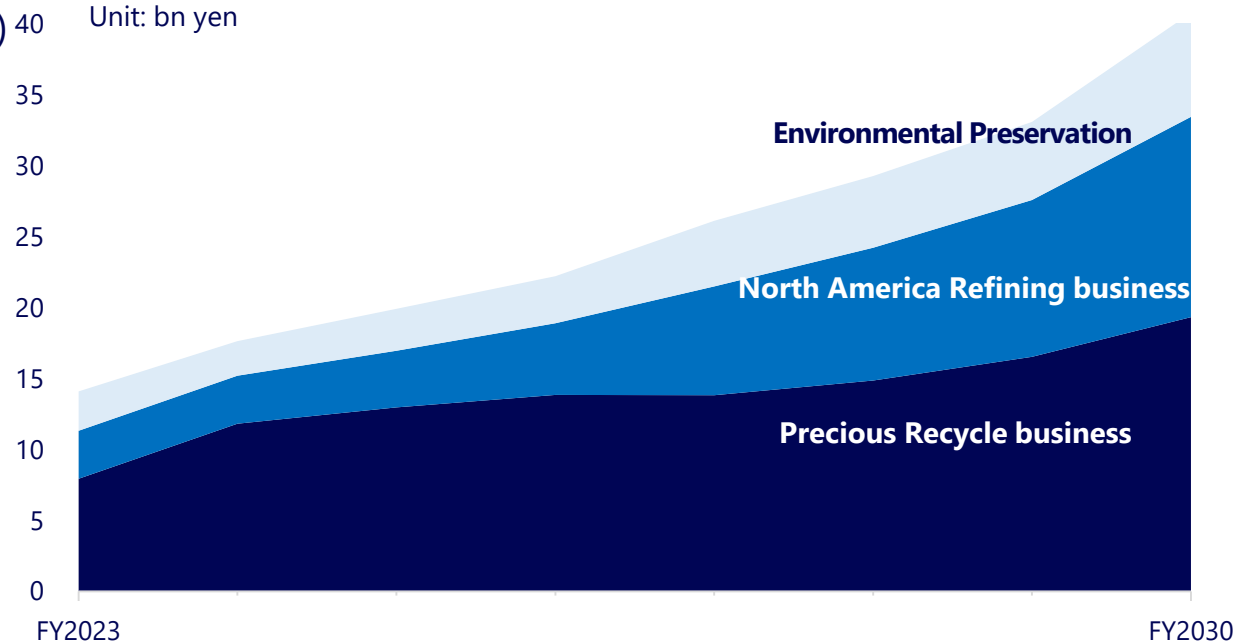
(Revenue and Operating profit)

Unit: bn yen

	FY2023	FY2024	FY2030
	Results	Forecast	Goals
<b>Revenue</b>	<b>322.3</b>	<b>370.0</b>	<b>540.0</b>
<b>Operating Profit</b>	<b>12.4</b>	<b>18.0</b>	<b>38.0</b>

(Operating profit trend)

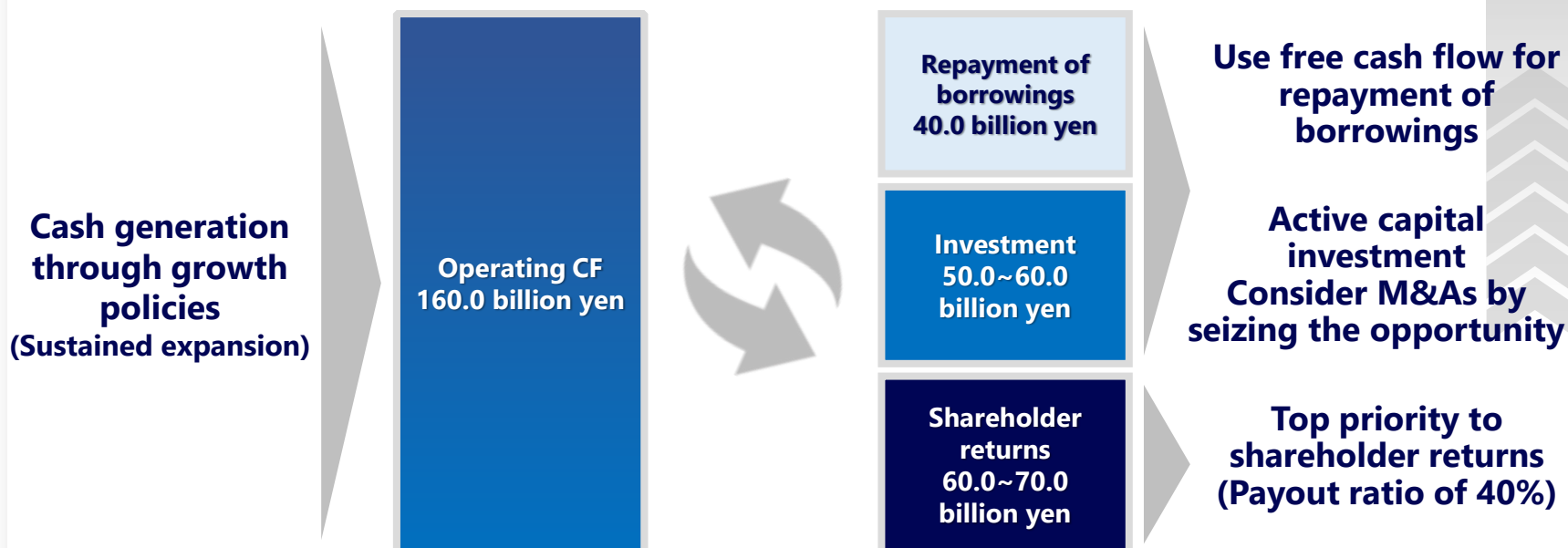
Unit: bn yen



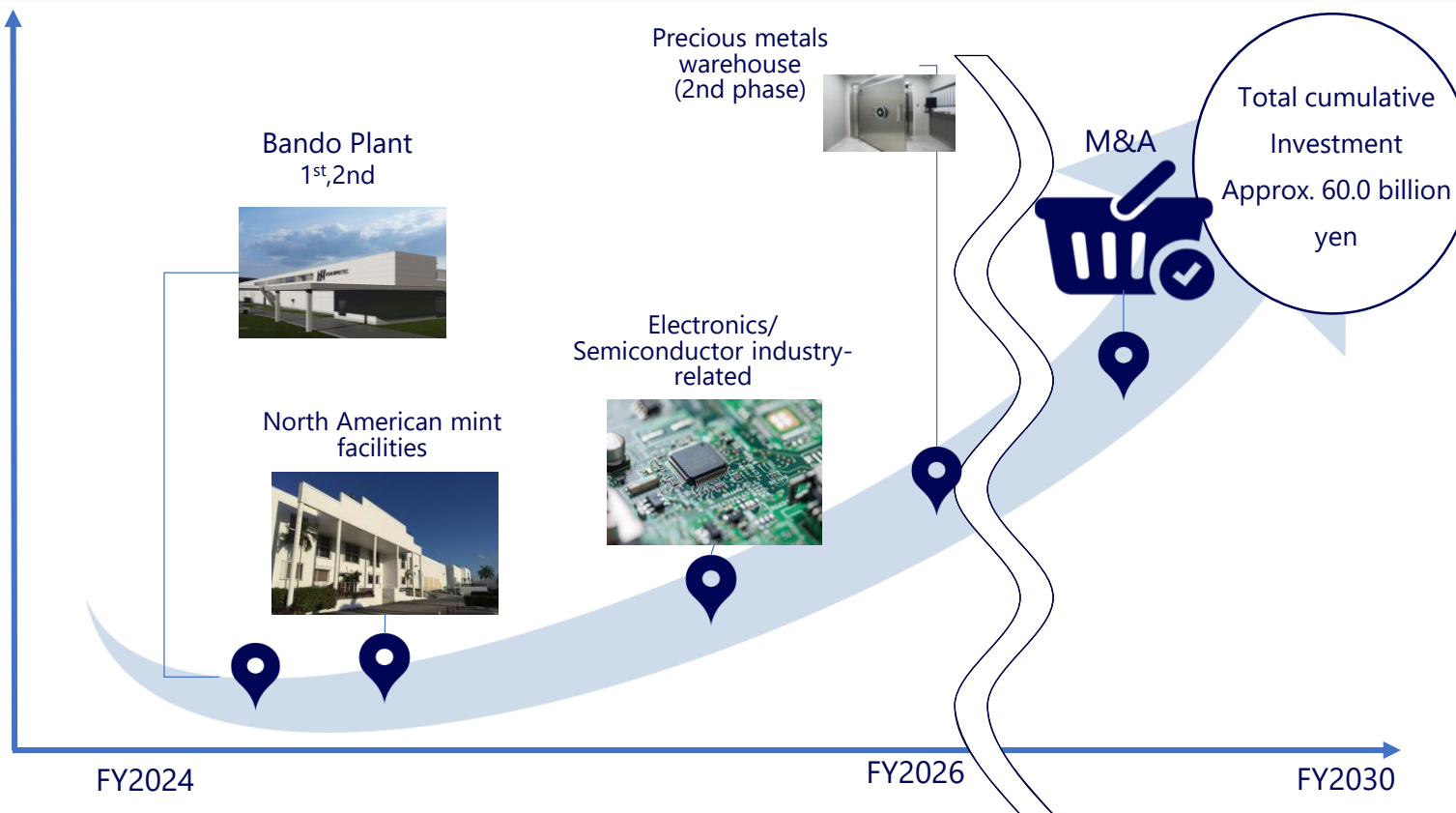
(Assumptions)

Gold	Palladium	Platinum	Rhodium
11,800 yen/g	5,000 yen/g	4,700 yen/g	4,600 \$/toz

	FY2023	FY2030	
ROE	9.4%※	13%	Improve profitability
Equity ratio	39.8%	50%~60%	Reduce total assets



ROE: Calculated by excluding the effect of share exchange gain.



	FY2024	FY2025	FY2026	Total
<b>Precious Metals</b>	<b>12.9</b>	<b>8.6</b>	<b>9.0</b>	<b>30.5</b>
<b>Domestic</b>	<b>6.9</b>	<b>5.2</b>	<b>2.0</b>	<b>14.0</b>
<b>Overseas</b>	<b>6.0</b>	<b>3.4</b>	<b>7.1</b>	<b>16.5</b>
<b>Depreciation</b>	<b>2.5</b>	<b>3.4</b>	<b>4.1</b>	<b>10.0</b>

Unit:bn yen

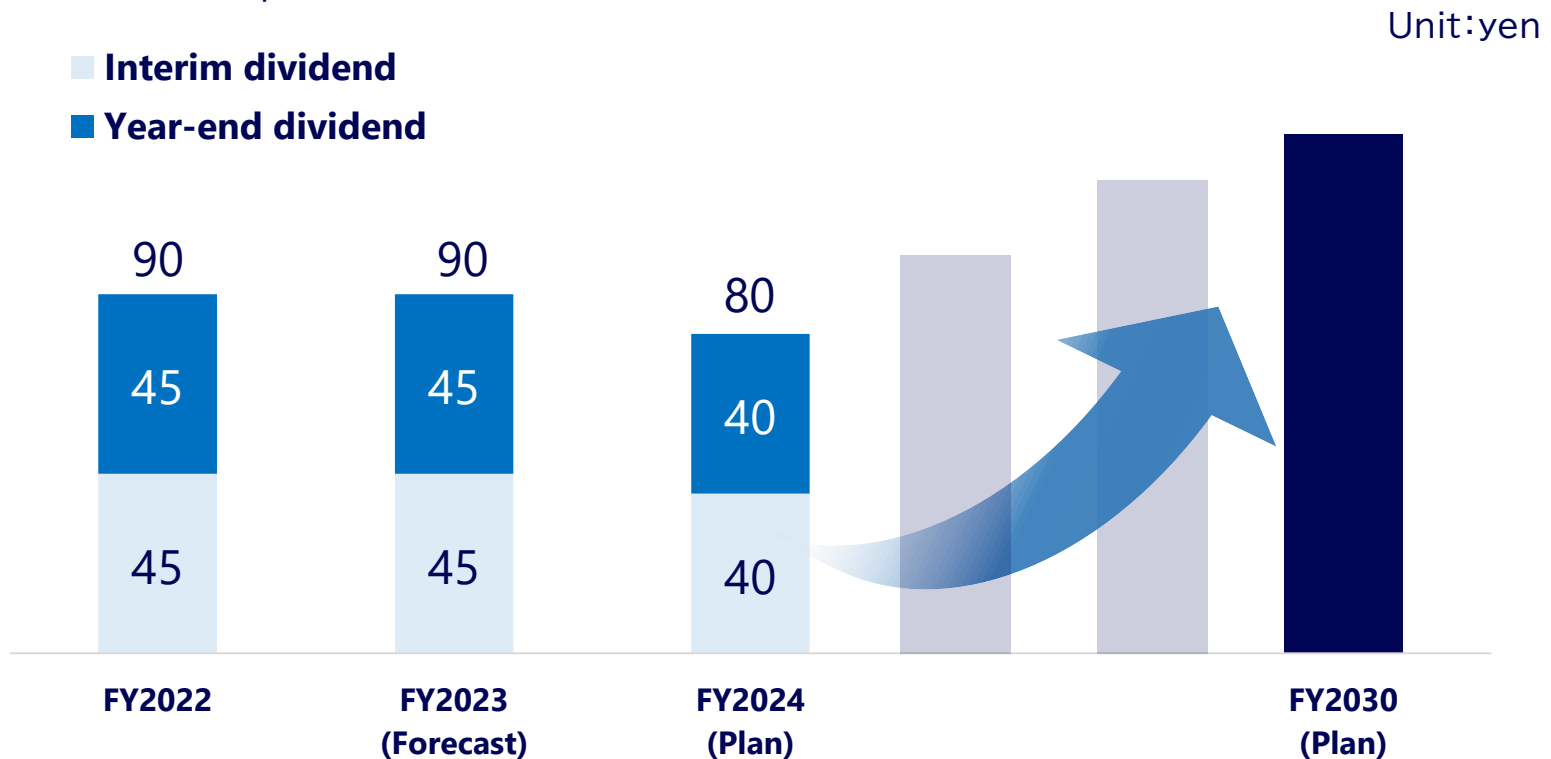


## Basic policy:

We aim to maintain a dividend payout ratio of approximately 40%, while retaining sufficient internal reserves for capital investment and M&A for future growth. In addition, we will consider the acquisition of own shares while monitoring financial results, cash position, and share price conditions.

## FY2024:

We plan to pay an annual dividend of 80 yen per share (payout ratio 46.4%) in FY2024. The total return ratio\* is expected to be 54.0%.



\*This estimate includes dividends for FY2024 and planned own share acquisition amount (up to 1 billion yen).

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*Precious Metal Recycling Business*

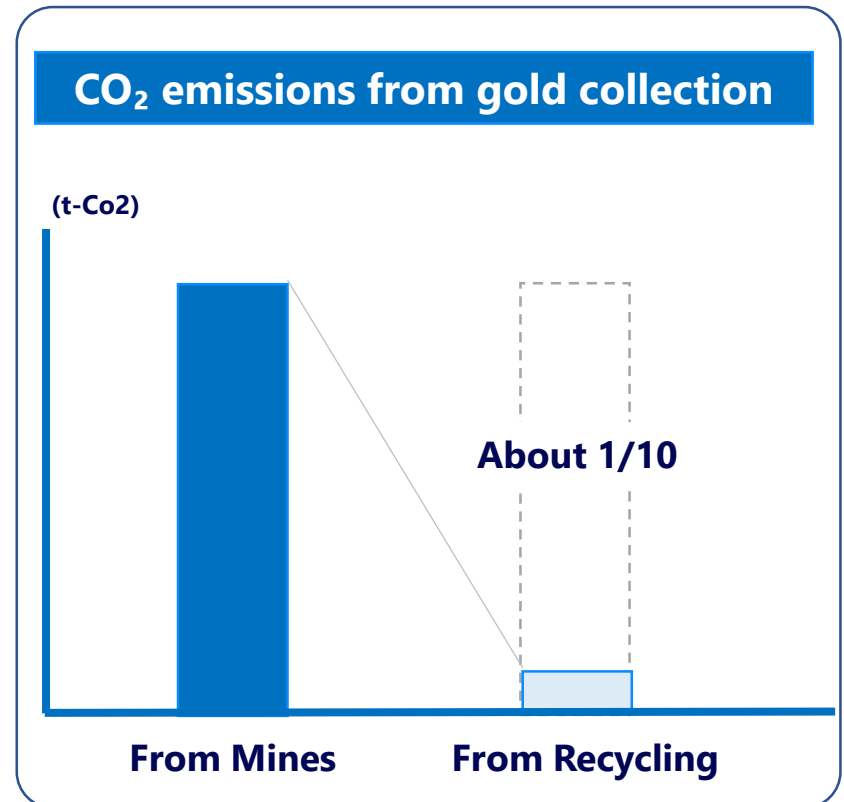
*North American Refining Business*

*Environmental Preservation Business*

***ESG***

- Japan : “Proposed Act on Advancement of Recycling Business, etc. for Promotion of Resources Recycling” (MOE)  
“Growth-Oriented, Resource-Autonomous Circular Economy Strategy” (METI) ▶ Circular Partners Launch
- Global trend: Environmental concerns (CO<sub>2</sub> emissions, etc.) of jewelry brands, etc. and the spread of recycling premiums

Company	Commitments
Tiffany	- Use 50% or more recycled precious metal materials by 2025
Apple	- Aim to manufacture products using only recycled or recyclable materials - Eight products were made of 20% or more recycled materials as of 2021; promoting the use of recycled materials for 14 items that account for 90% of products (18% of materials used were recycled materials as of 2021)
Microsoft	- Aim to have zero waste by 2030 and to make their devices 100% recyclable by 2030
BMW	- Announced the use of plastics made of approx. 30% recycled materials from fishing equipment for the interiors/exterior of their new model, Neue Klasse, scheduled to be launched in 2025

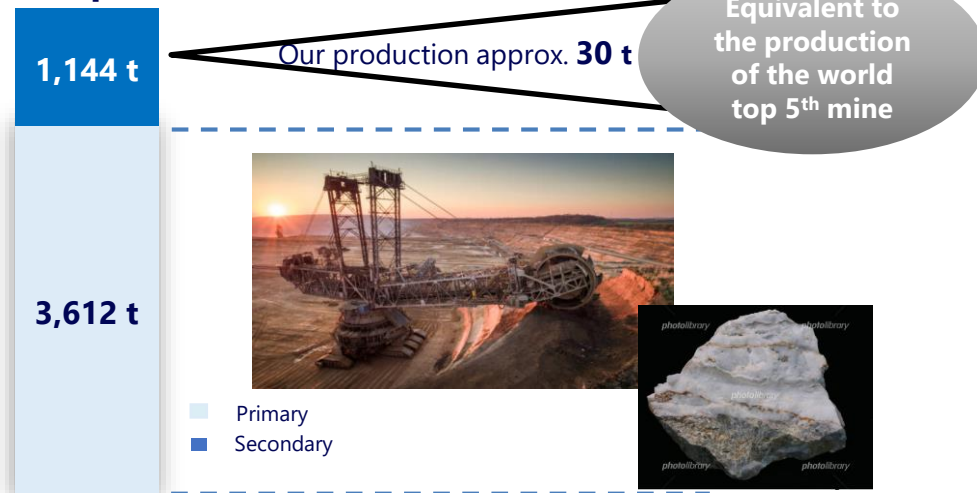


- From jewelry to other industries
- From gold to other resources



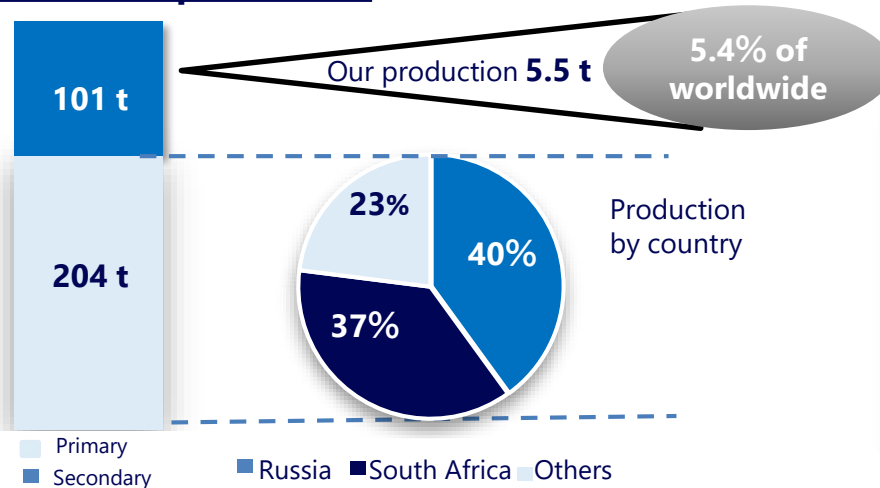
**Growing consensus on recycled value**

## Gold production

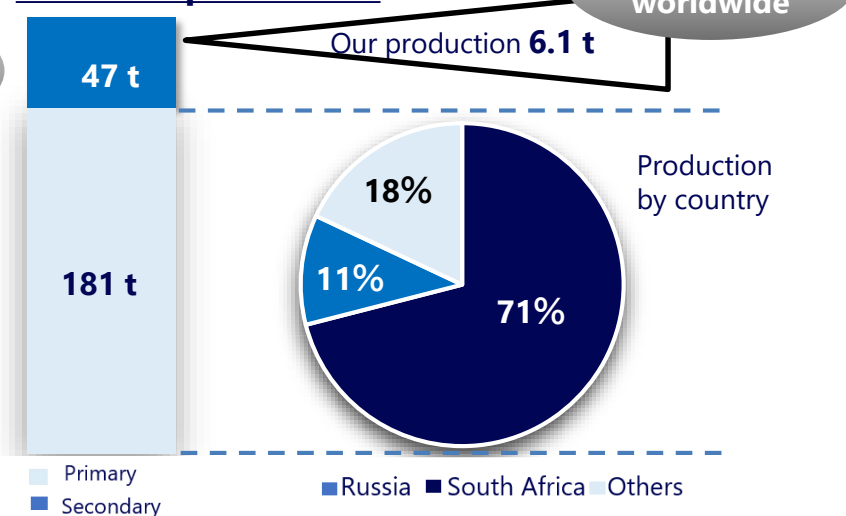


1	Muruntau	60.5トン
2	Gasberg	55.9トン
3	Carlin	48.9トン
4	Olimpiada	32.5トン
5	Boddington	24.8トン
6	Cortez	23.8トン
7	Kibali	23.3トン
8	Pueblo Vjejo	22.2トン
9	Lihir	21.8トン
10	Detour Lake	21.8トン

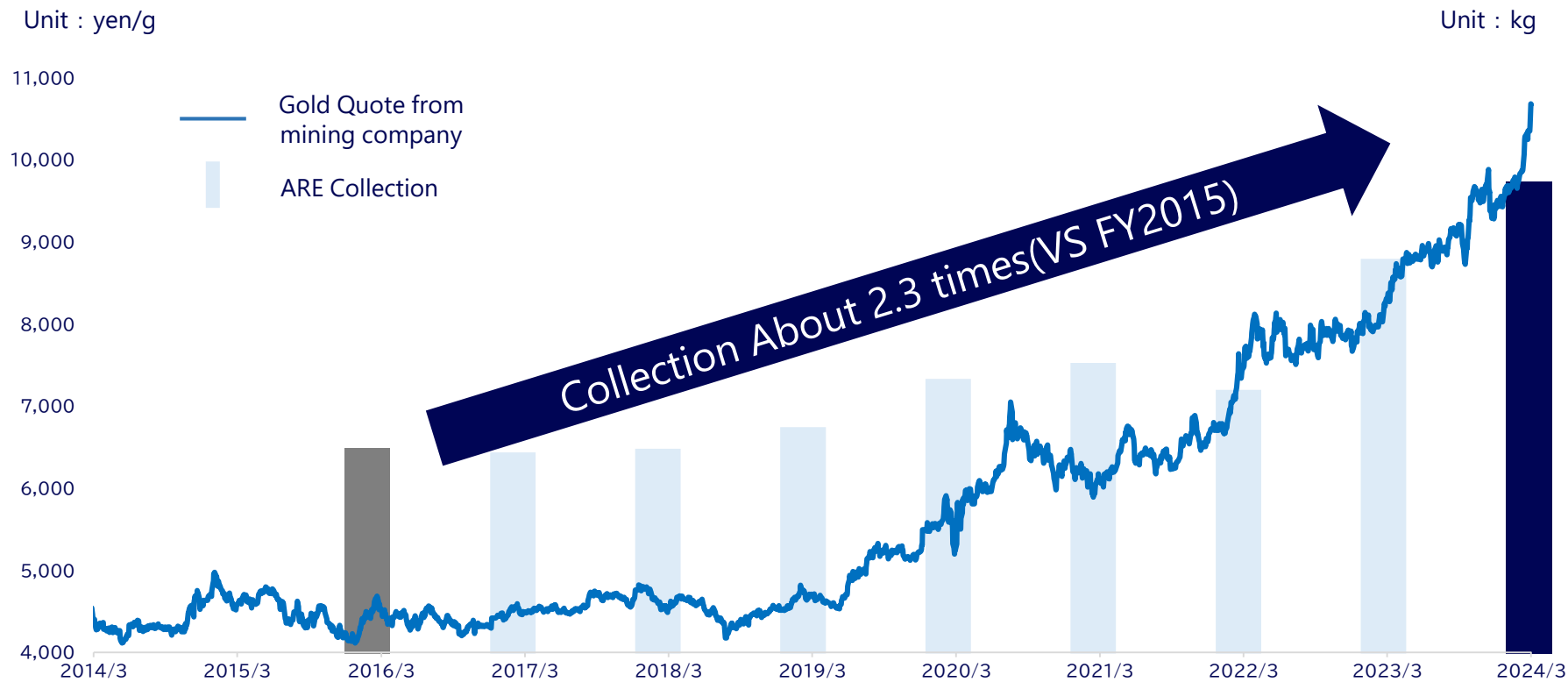
## Palladium production



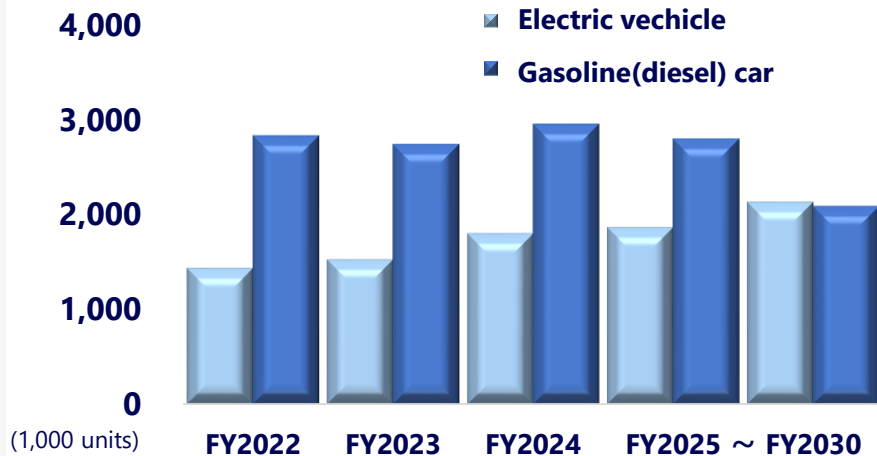
## Platinum production



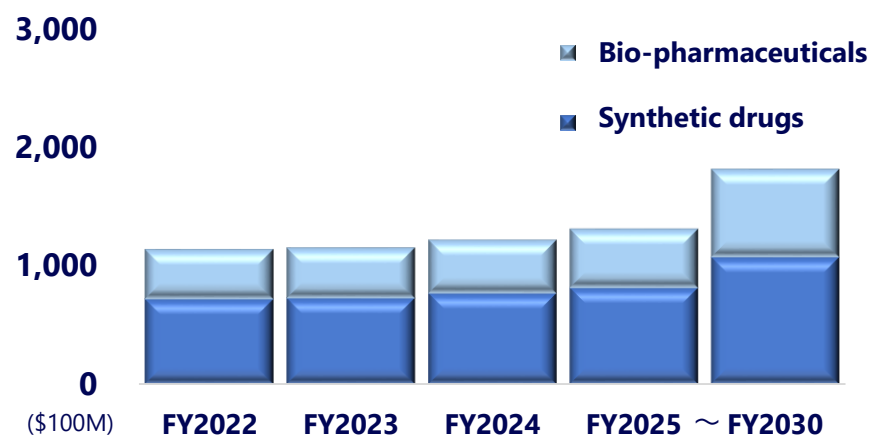
- With the rise in gold prices, our collection volume has increased by approximately 2.3 times compared to FY2015
- Higher gold prices lead to more recycling opportunities



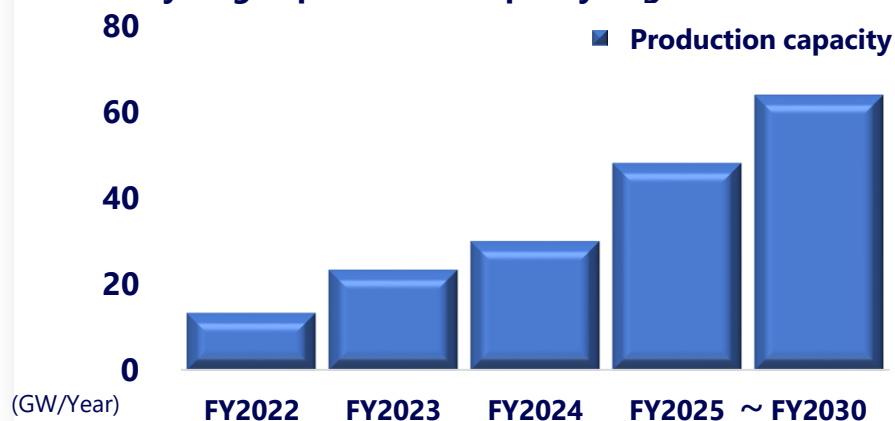
### xEV-related : Increase sales of domestic electric vehicles



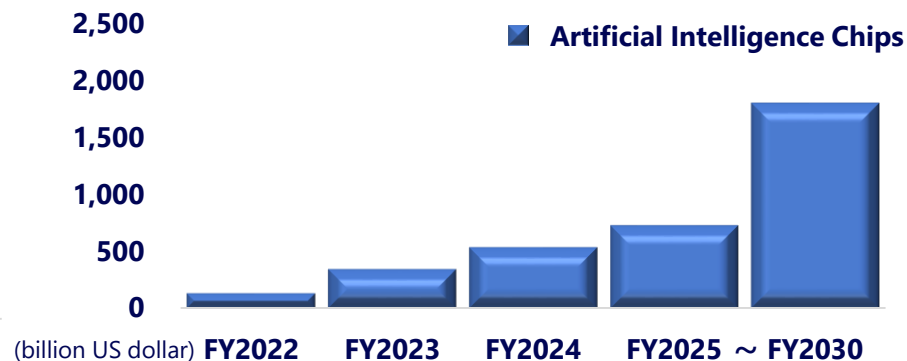
### Synthetic Pharmaceutical-related : Expand global market of pharmaceutical



### Hydrogen production-related : expand hydrogen production capacity in global



### AI·Semiconductor-related : Expand global market of AI chips



AI·Semiconductor-related Source: Estimated by ARE Holdings based on data from Gartner Press Release and newspapers  
 Synthetic Pharmaceutical-related Source: Estimates by ARE Holdings based on data provided by Evaluate Pharma®  
 xEV-related Source: Estimates by ARE Holdings based on data provided by the Japan Automobile Dealers Association  
 Hydrogen production-related Source: Estimate by ARE Holdings based on data from Global Hydrogen Review 2022 by IEA

## (World Economic Growth Outlook)

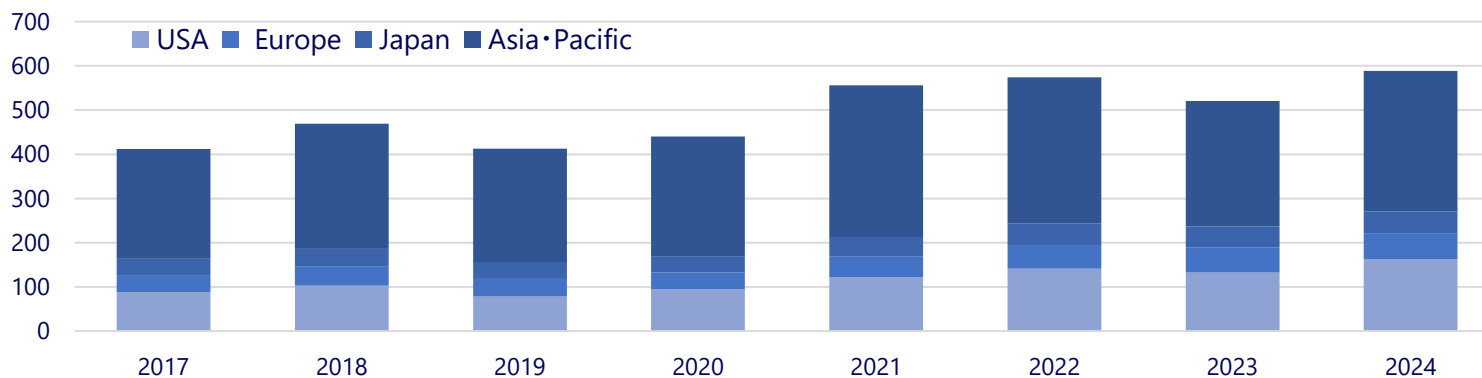
(Unit:%)

	2022	2023	2024	2025	2026	2029
<b>World</b>	3.5	3.2	3.2	3.2	3.2	3.1
<b>USA</b>	1.9	2.5	2.7	1.9	2	2.1
<b>Japan</b>	1	1.9	0.9	1	0.8	0.4
<b>China</b>	3	5.2	4.6	4.1	3.8	3.3
<b>India</b>	7	7.8	6.8	6.5	6.5	6.5
<b>ASEAN-5</b>	5.5	4.1	4.5	4.6	4.6	4.6

\*Created by ARE Holdings based on data from IMF documents.

## (Trend of semiconductor production)

(bn dollar)



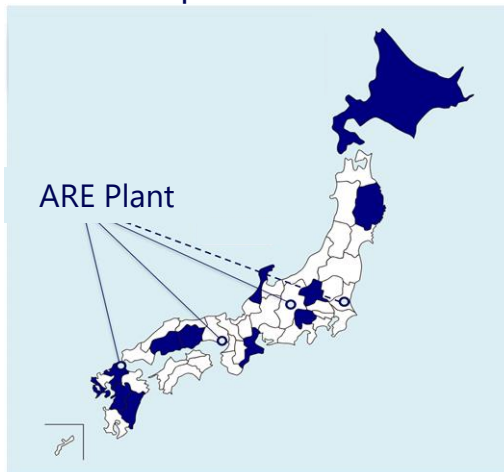
Ref : World Semiconductor Trade Statistics (WSTS)

\*Created by ARE Holdings based on "WSTS Semiconductor Market Forecast Fall 2023".

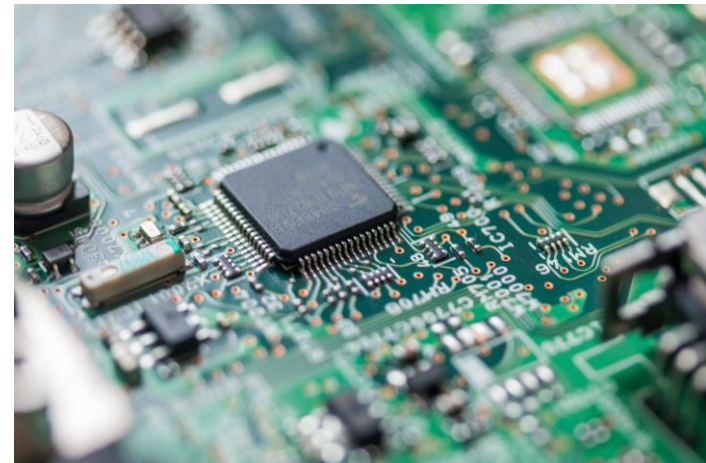
- Precious metal recycling is a buffer against the risk of an uneven distribution of resources.  
(Uneven distribution of precious metal resources)

Element	Recycling Source (Urban Mines)	Major country of origin (mine)
Platinum	Chemical Catalysts, Fuel Cells, Semiconductors	South Africa, Russia
Palladium	Automotive Catalysts, Pharmaceuticals, Dental	Russia, South Africa
Rhodium	Automotive Catalysts, Thermocouple, Reed Switch	South Africa
Ruthenium	Semiconductors (MRAM), HD, Ammonia Production	Russia
Iridium	Hydrogen production (electrode for electrolysis of H <sub>2</sub> O)	South Africa

(Semiconductor production returns to Japan)



Location of semiconductor plants





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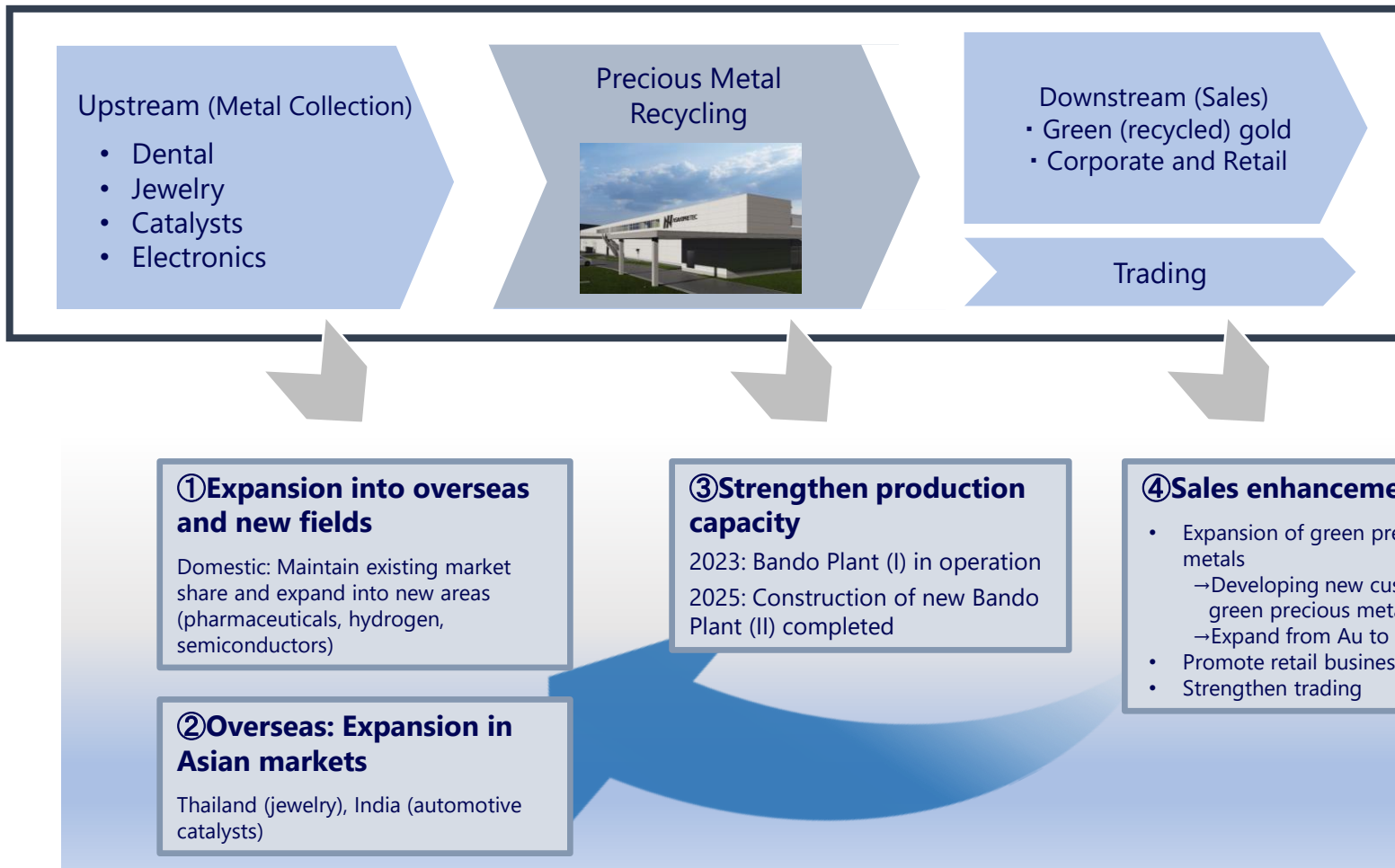
***Growth strategy***

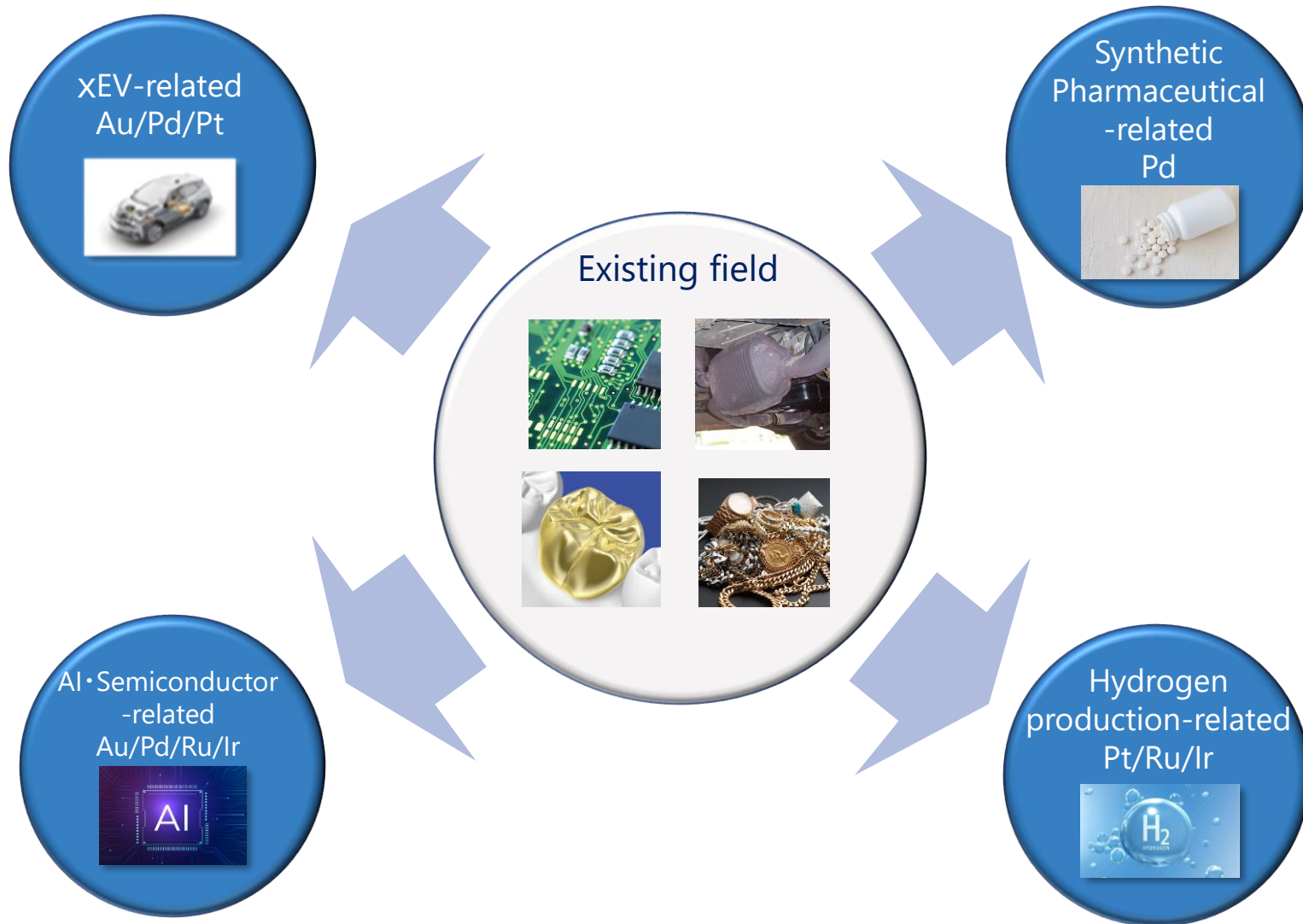
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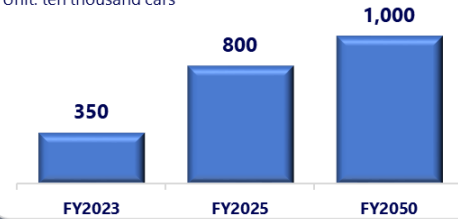
## India-Automotive Catalyst in India

Enter the market collaborating with automaker based on the government led "End-of-Life" vehicle policy.



Indian automotive catalyst scrap market

Unit: ten thousand cars



South Korea  
Asahi

Asahi Pretec

ASAHI G&S

Plans to build a new plant within ASEAN

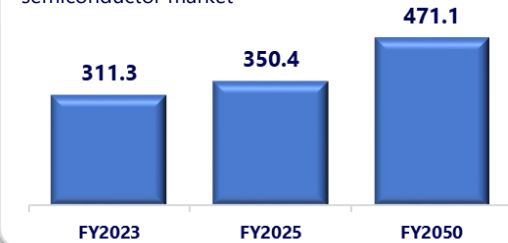
## ASEAN-Electronic Semiconductor

With a Malaysian subsidiary as a foundation Japanese European, American and Korean manufacturers



ASEAN electronics and semiconductor market

Unit: bn dollars

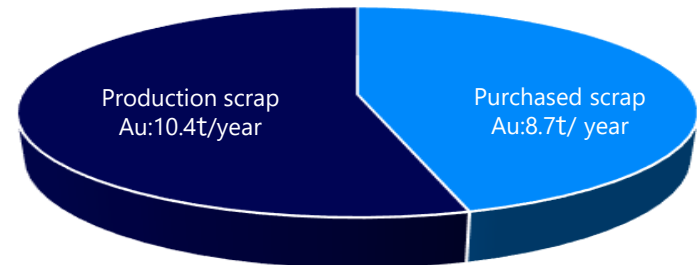


## Thailand-Jewelry Scrap

Respond to recycling needs  
Green Gold sales

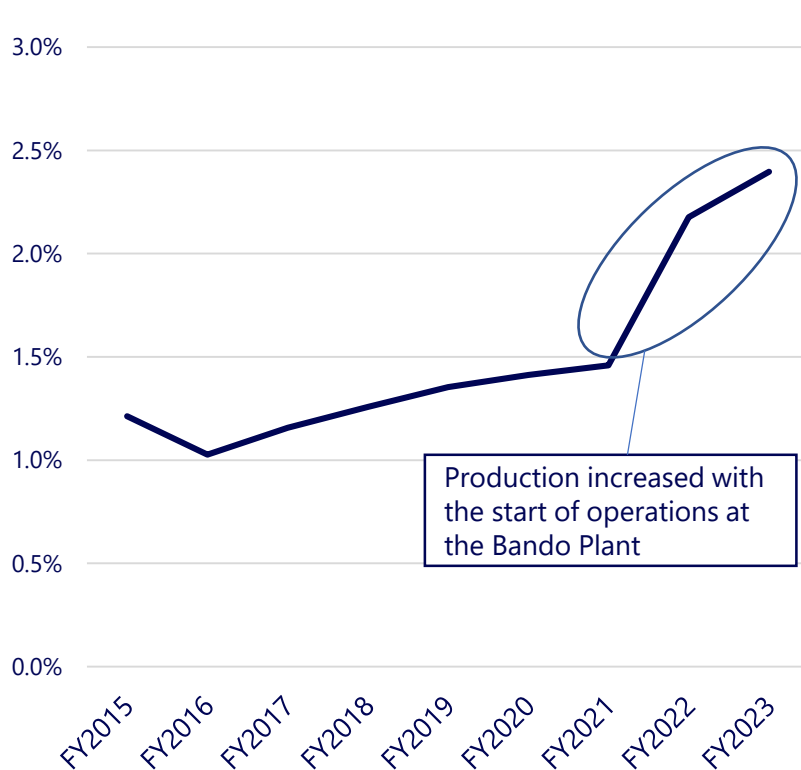


The volume of Thai jewelry scrap market in 2023  
(excluding ingot and mint production)

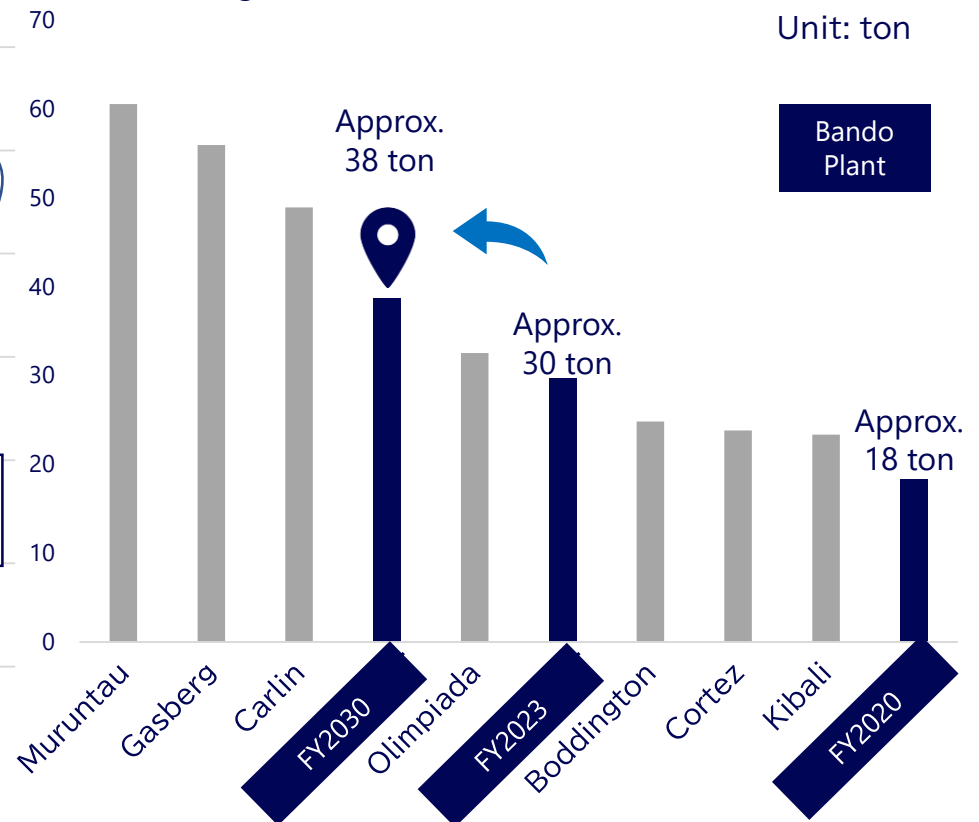


- Gold production has increased dramatically since the Bando 1<sup>st</sup> plant started operating in 2022
- Demand for green precious metals is strong, especially in the jewelry industry, and production capacity has been increased by revising production processes
- In the Bando 2nd phase, the recycling processes in the electronics and catalyst fields will be newly consolidated to improve production efficiency

Changes in ARE Holdings, Inc. share of the global supply of recycled gold



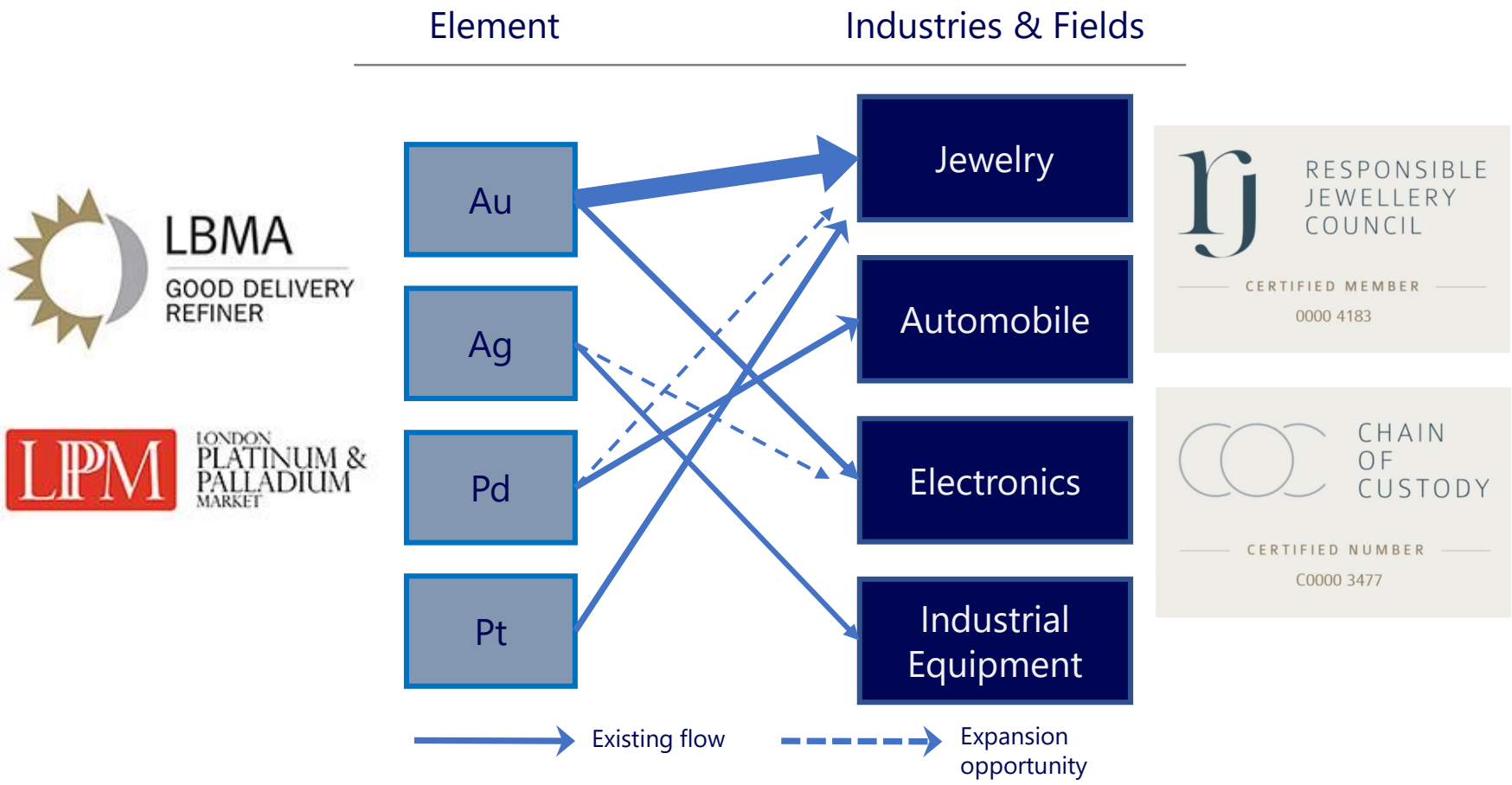
The Bando Plant aims to produce gold equivalent to the third largest mine in the world



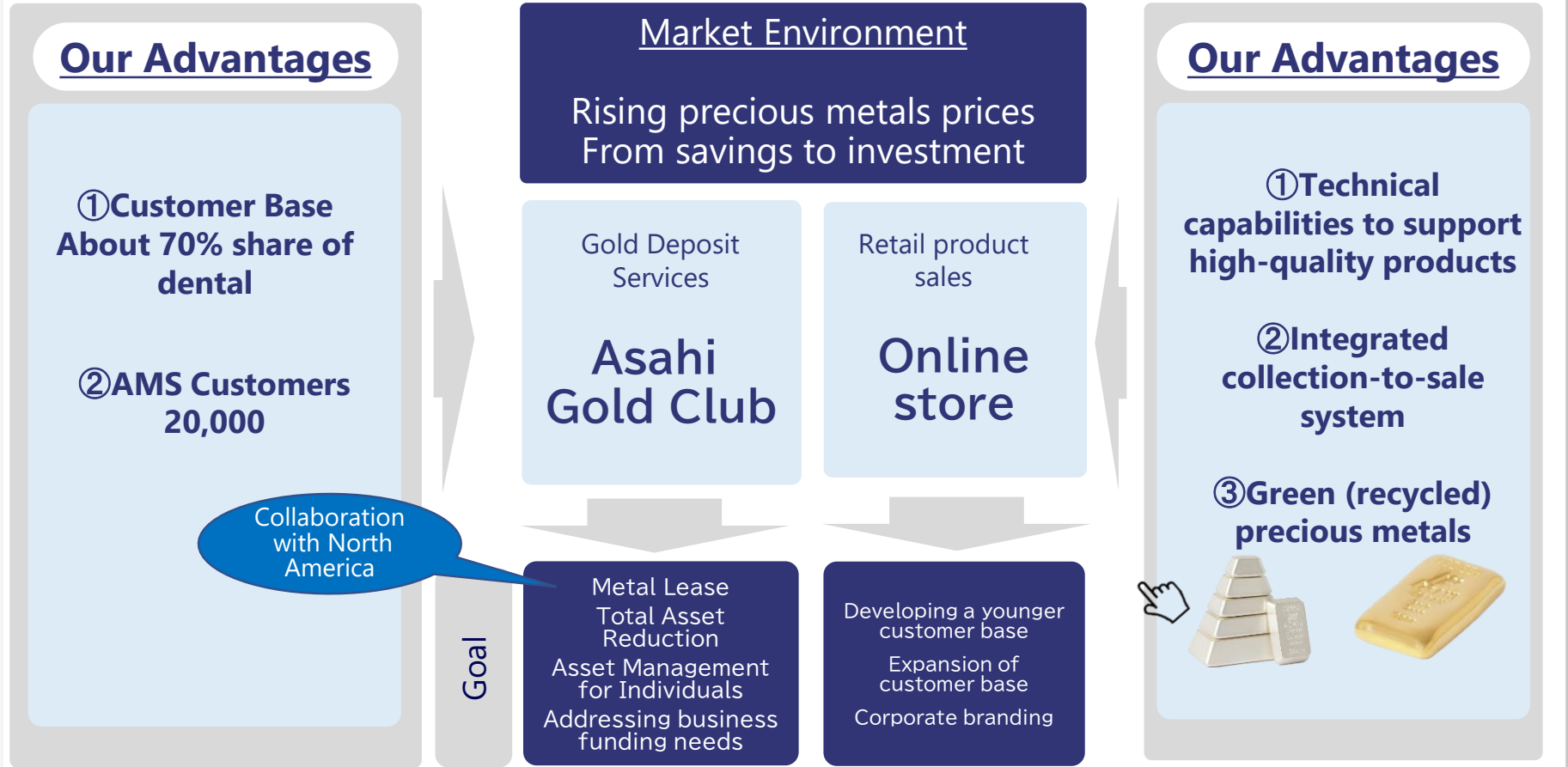
Unit: ton

Bando Plant

- ARE has advantages in CO2 emissions reduction, traceability, and international certification
- Expanding into new industries and fields based on the long cultivated trust in our quality, and expanding green added value

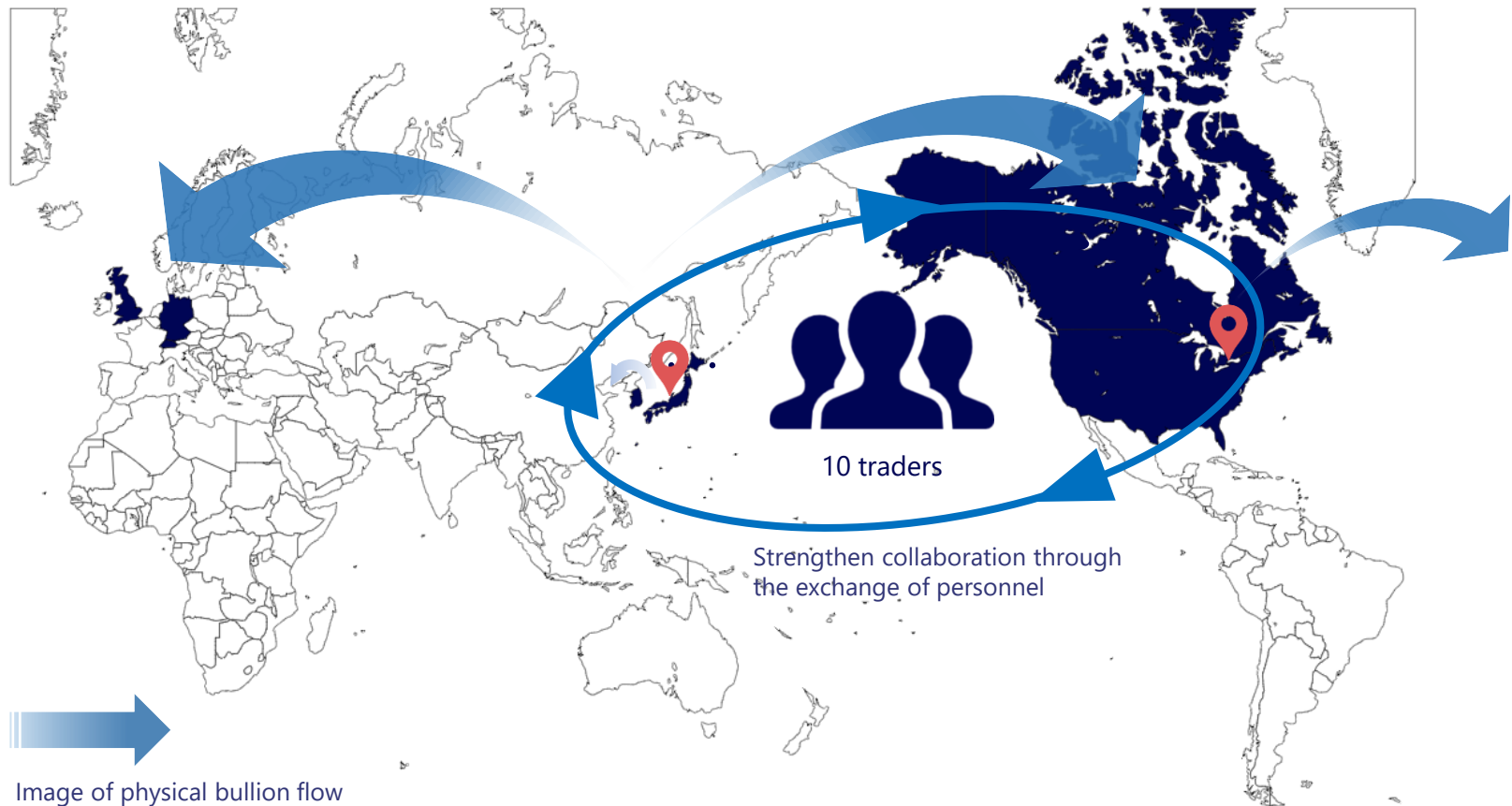


- Build a retail business that leverages our strengths, including our affluent dentist customer base and our integrated collection-to-sale system.

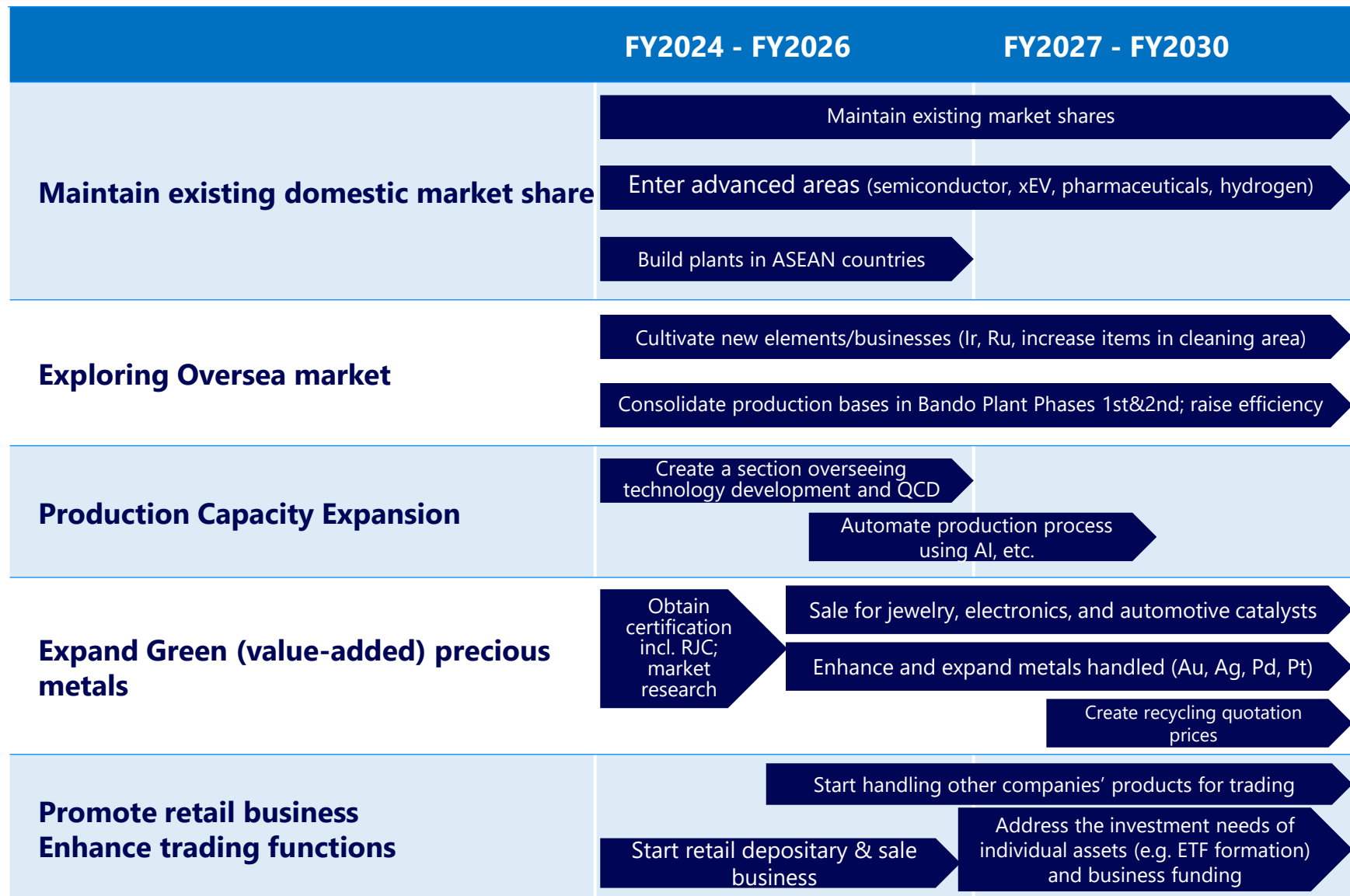


※AMS: Asahi Metal Account System

- Collaborate between trading teams in Japan and Canada to take advantage of global trading markets
- Take a leap forward from traditional trading that focusing on physical transactions, and seek to expand revenues by enhancing various customer services, such as options trading
- Traders familiar with market practices in Japan, the U.S., and Europe work together to seek global arbitrage opportunities







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***Growth strategy***

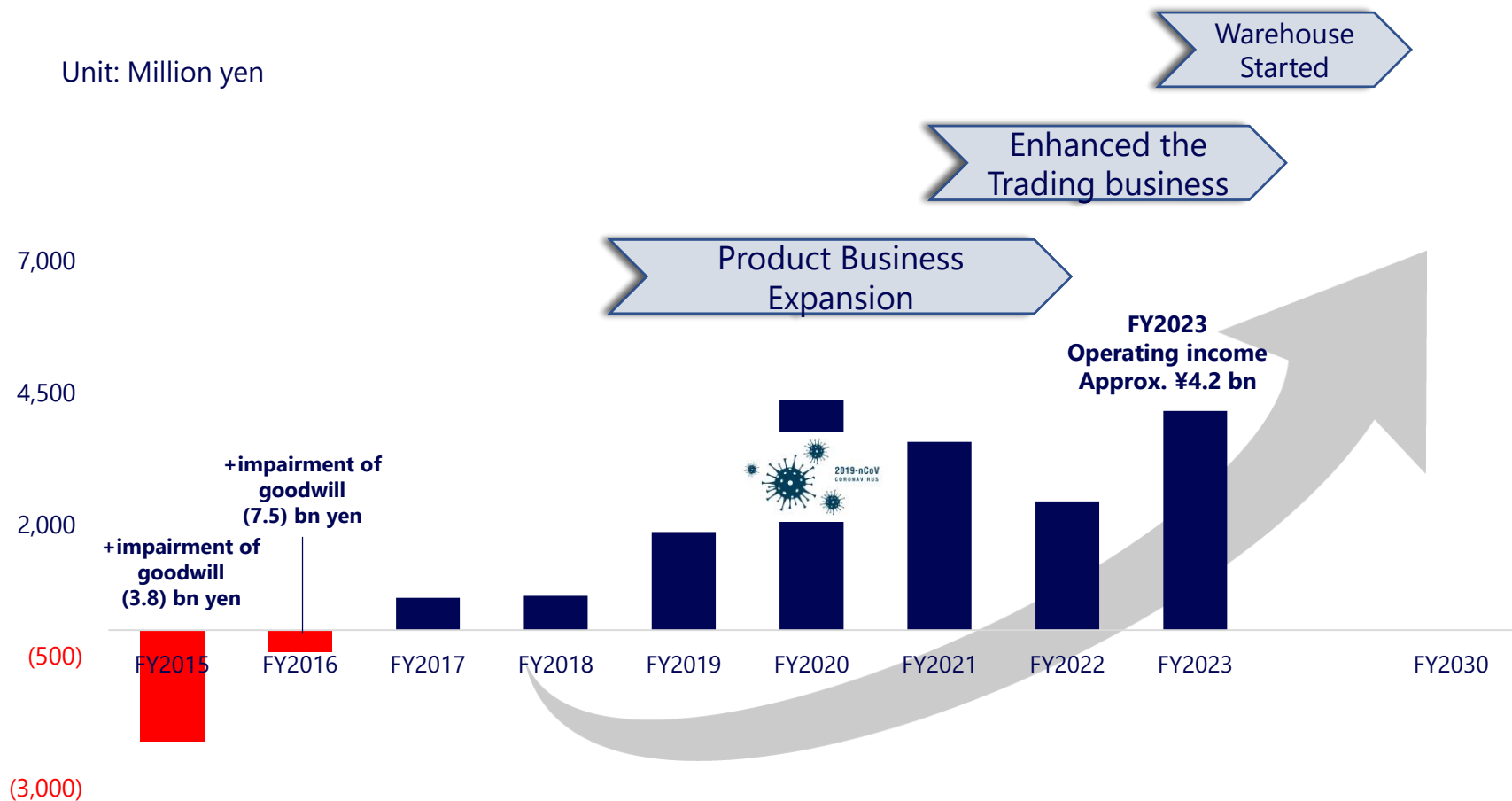
*Precious Metal Recycling Business*

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- Earnings levels have improved since the 2015 acquisition as the company has diversified its business to include products, trading, and precious metal warehousing
- Targeting further growth with a view to going public



## Business structure that positions the warehouse business as the core strategy and going public

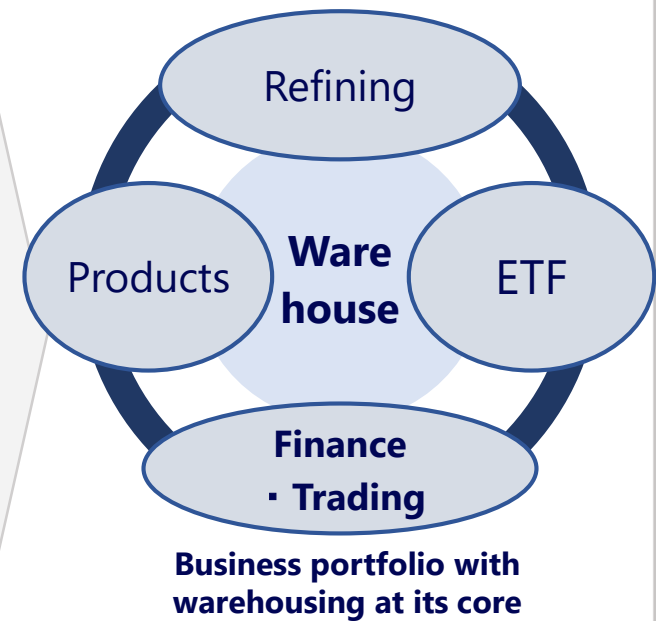
### Expanded earnings through diversification



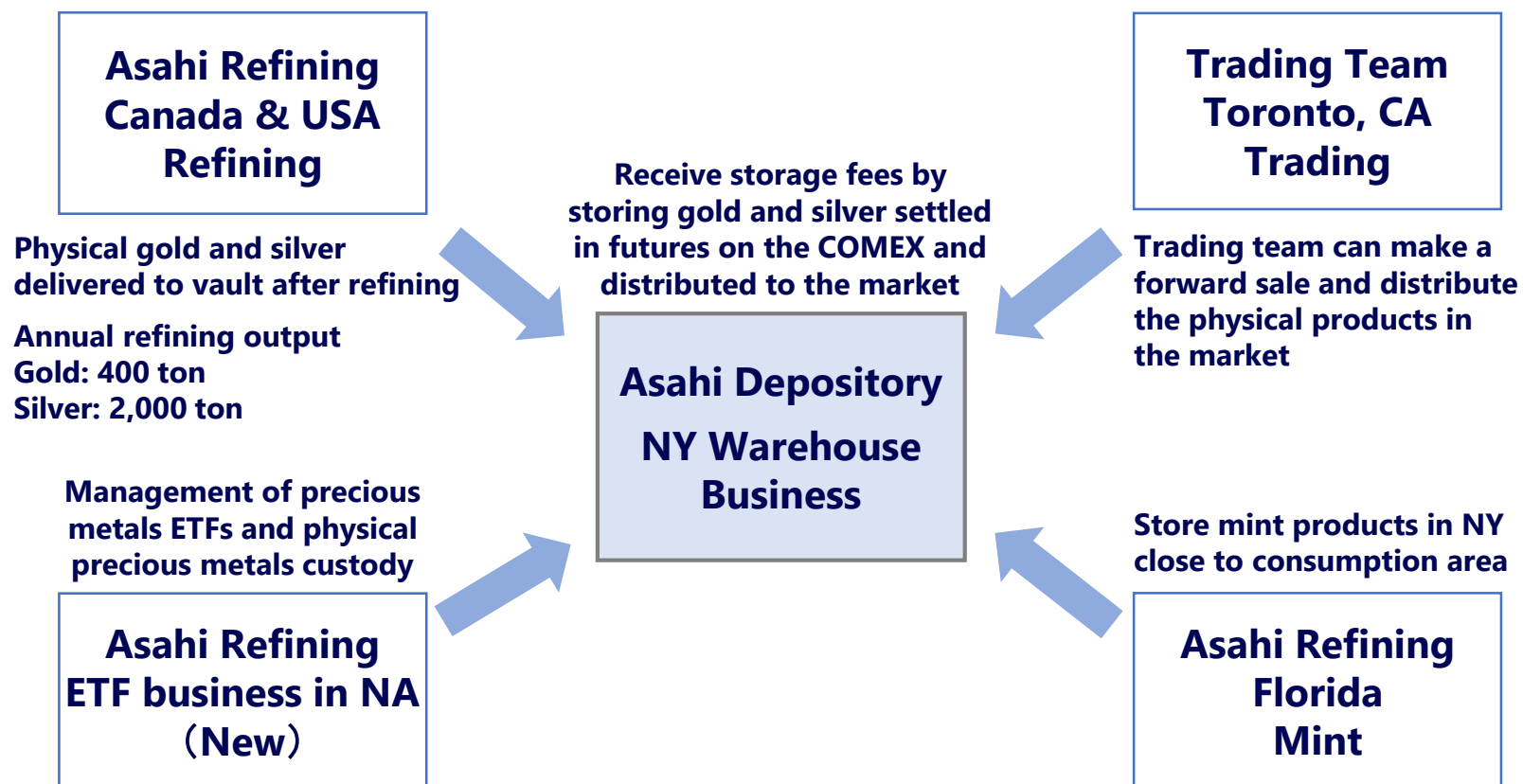
### Investment for Growth

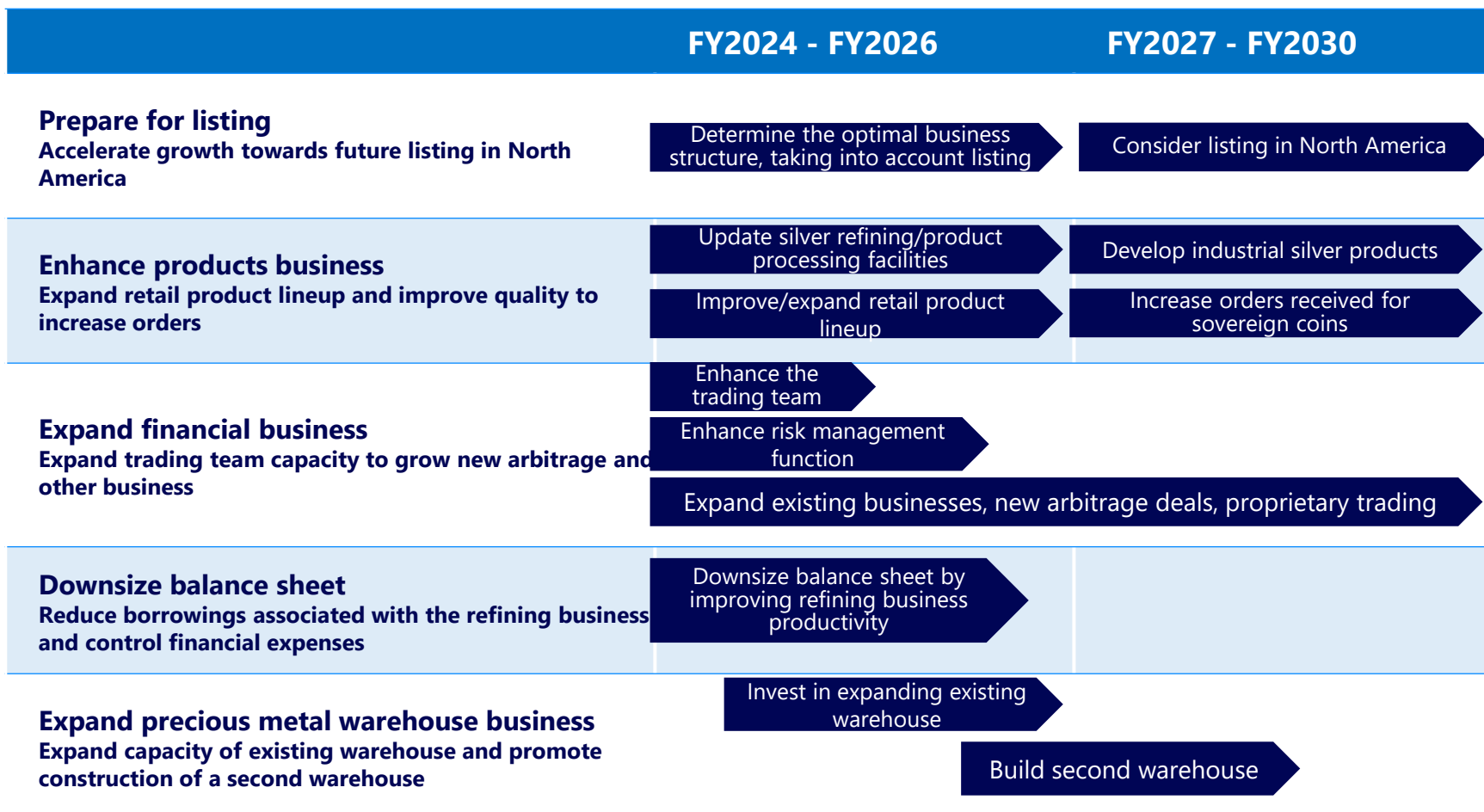


### North America Business Goal by 2030



## Warehousing business, which has a high affinity with the refining and products business, is the source of synergies





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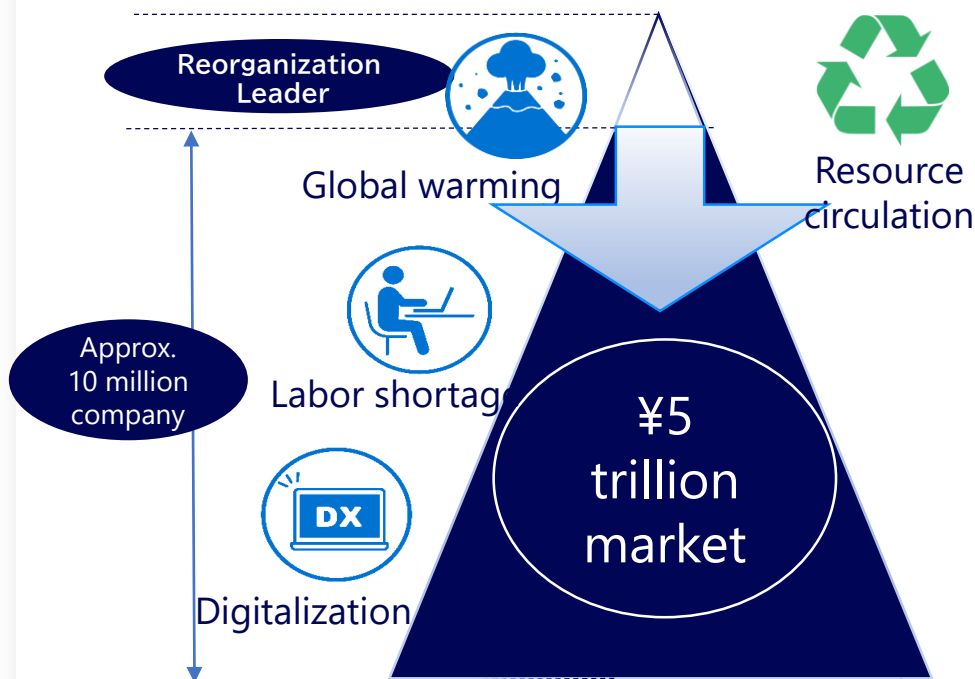
- ARE Holdings has been growing side by side with the development of Japan's industrial waste treatment
- The legal system made marked progress in keeping with the demand of the times and focused on formulation of circular-type society. However, it was unable to fully meet the demands of the society due to the delays in consolidation of scale in the industrial waste treatment industry
- The market size of the circular economy is forecast to reach 80 trillion yen in 2030, and its key is the cooperation between the artery and vein of industries
- The artery of industries is led by large companies with a high market share, while leading medium-sized companies and SMEs are the main players in the vein of industries with the largest company having a market share below 2%
- It is important to create major vein companies like in the U.S. and Europe for promoting the cooperation between the artery and vein of the industry.
- Japan Waste's joining the Renatus Group provides a foothold for creating a major vein player in Japan
- For ARE also, development of Renatus contributes to profit


**We will continue with our commitment to the environmental preservation business even after the share exchange of Japan Waste and Renatus**

Our history in the environmental preservation business		Law enactment
1970		Waste Management and Public Cleansing Act
1972	Establishes a facility for detoxifying waste photographic fluid at the Kobe Plant	
1975	Acquires industrial waste disposal license from Kobe City (detoxification of photographic effluent containing harmful substances)	
1978	Registers as an environmental measurement certification office	
1990	Starts the environmental preservation business other than waste photographic fluid	
1992		Act on Promotion of Development of Specified Facilities for the Disposal of Industrial Waste
1993		Basic Act on the Environment
2000		Basic Act on Establishing a Sound Material-Cycle Society
2007	Asahi Pretec establishes the Kitakyushu Office	
2008	Establishes Japan Waste	
2010	Japan Waste opens the Yokohama Office	
2020	Integrates the environmental preservation business of Asahi Pretec and Japan Waste	
2021	Asahi Pretec and Japan Waste merge Ministry of the Environment adopts hydrogen business as a subsidized project Establishes DXE, which promotes environmental DX	
2023	Changes name to Japan Waste	
2024	Share exchange of Japan Waste and Renatus	Act on Promotion of Hydrogen Society



- Cabinet Decision on the "Draft Law on the Promotion of Recycling Enterprises for the Promotion of Resource Recycling"
- Industry restructuring in the huge venous industry is slow
- Aiming for a management base and presence that evolves the venous market

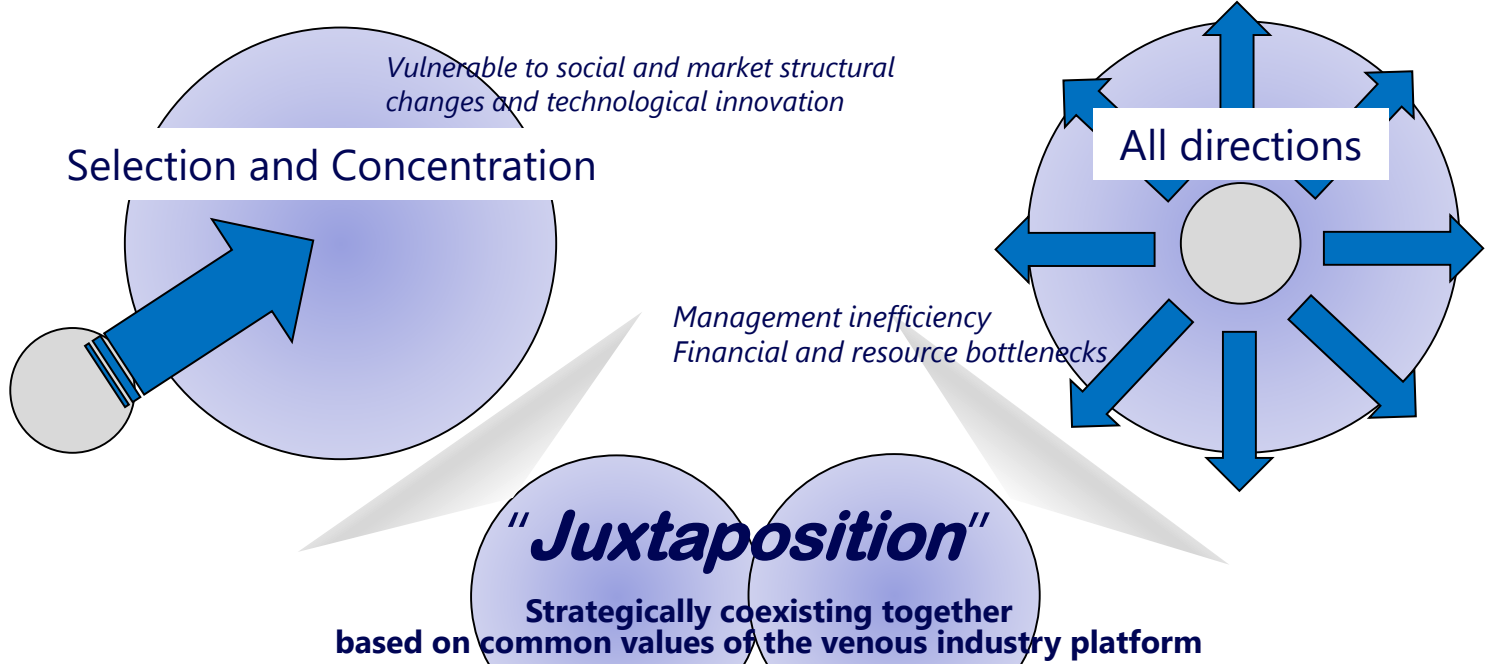


Industrial Waste Company	Revenue (¥bn)
Company A	67.7
<b>Renatus</b> 	<b>54.4</b>
Company B	34.0
Company C	18.8
Company D	16.4
Company E	7.8
Company F	4.8

Renatus's revenue is a total of group companies'sales in previous fiscal year and revenue of ARE's Environmental Preservation Business of FY2022.

Company B and D: Year ended Feb,2023, Company F: year ended Dec. 2022

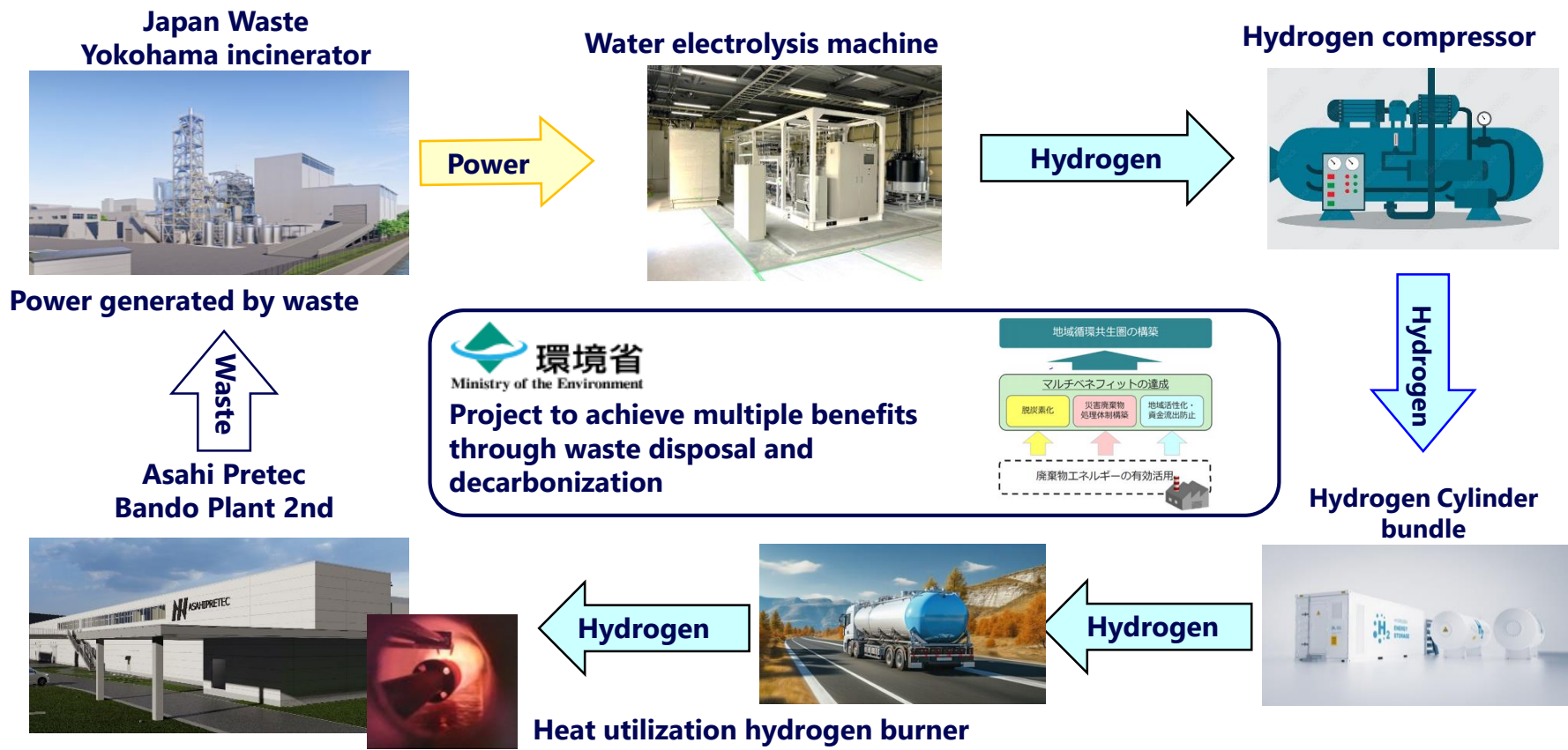
Other than above, year ended Mar,2023



**"Totally Committed to Protecting the Natural Environment and Preserving Resources"**

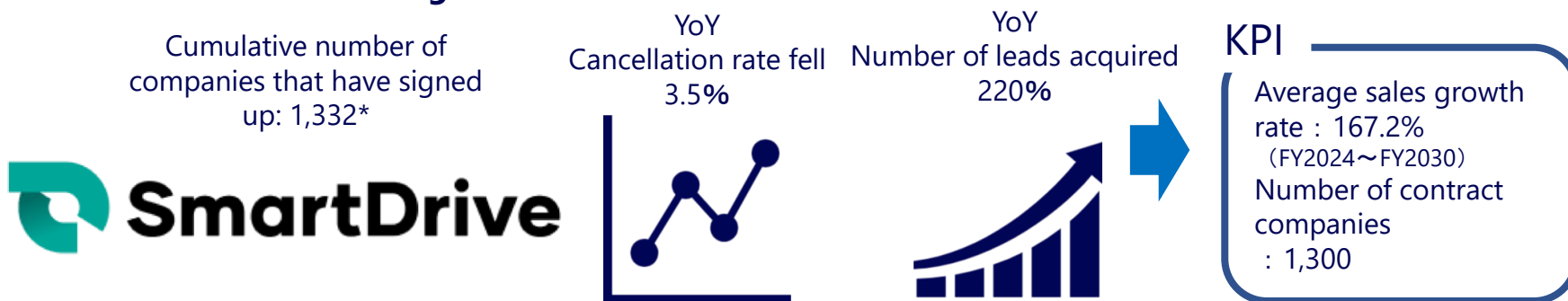
**"We unite several companies for tackling global environment problems"**

The Yokohama Plant (Japan Waste) will install equipment to establish a supply chain in 2025. This initiative has been certified as a subsidized project by the Ministry of the Environment. After this system is established, we plan to start external sales to approximately 3,000 incinerators throughout Japan as potential customers.



- Agency agreement with SmartDrive on April 3, 2024. Accelerating agency development
- Expand product functionality to broaden customer target
- Increase customer success 4x by 2030 to maximize customer LTV

### ◆ Build a sales and marketing structure



### ◆ Product development schedule

Product development from the ERP perspective that enables a single system to manage the entire operation process of waste management

**To March 2023**

#### DXE 処理

- Launch DXE Service
- Target: Collection & transportation providers
- Function to issue electronic manifests by proxy

**From April 2023**

#### DXE Station

- Release DXE Station
- Target: + Waste management companies
- Workflow function from waste generation, collection, transportation and disposal/treatment

**From 2025**

#### DXE Station

- Develop additional functions
- Target: + Waste generating businesses
- CO<sub>2</sub> emissions calculation function
- Matching function to select the best waste management company

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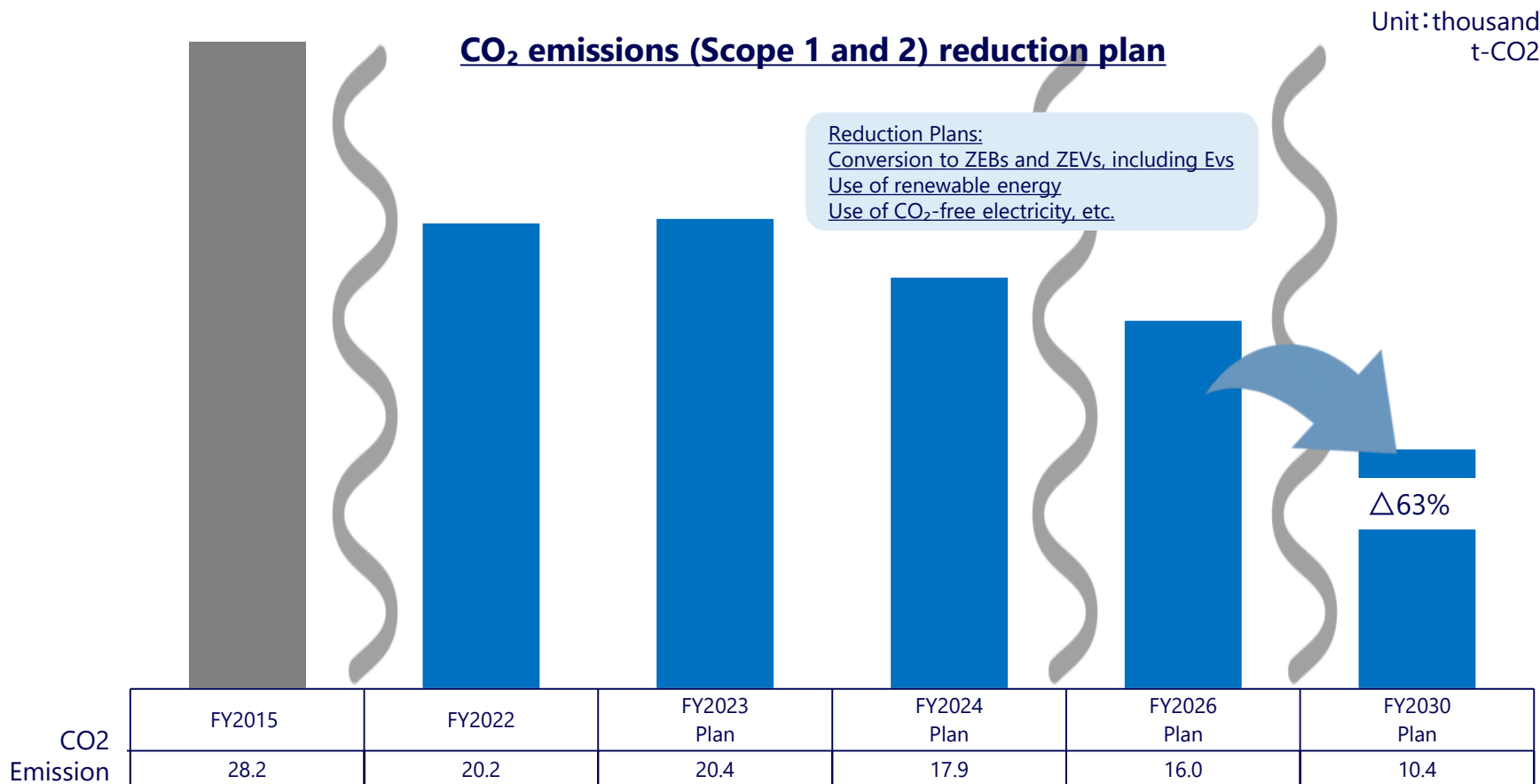
*Environmental Preservation Business*

**ESG**

Item	Initiatives/Approach
<b>E</b> <b>(Environmental)</b>	<ul style="list-style-type: none"> <li>• Disclosures based on TCFD</li> <li>• Has set a target of reducing energy-derived CO<sub>2</sub> by 50% from the FY2015 level by 2030 FY2022 reduction was 27% compared to FY2015</li> <li>• Implemented a third-party verification of our Scope 1, 2 and 3 CO<sub>2</sub> emissions in FY2022</li> <li>• CDP Climate Change Rating : A-</li> </ul> 
<b>S</b> <b>(Social)</b>	<ul style="list-style-type: none"> <li>• Disclosure of human rights policy and sustainability procurement policy</li> <li>• Responsible management of precious metals</li> <li>• Promoting workplace diversity including "three-day weekend" model</li> <li>• Enhancement to the engagement survey (to conduct a survey once a year instead of once every three years as in the past)</li> </ul> 
<b>G</b> <b>(Governance)</b>	<ul style="list-style-type: none"> <li>• Company with audit and Supervisory Committee</li> <li>• Among the six directors, four are external directors, including two women.</li> <li>• Responded the request "Action to Implement Management That is Conscious of Cost of Capital and Stock Price" of TSE [Introduction of TSR-linked stock compensation plan etc</li> </ul> <p style="text-align: right;">Ratio of female directors: 33%</p>  <p style="text-align: right;">2 women</p>

Item	Future initiatives and approaches
<b>E</b> <b>(Environment)</b>	<ul style="list-style-type: none"> <li>• Raise CO<sub>2</sub> emission reduction target for 2030 (vs FY2015)  Before: Reduce CO<sub>2</sub> emissions from energy sources by 50%  After: Reduce Scope 1 and 2 CO<sub>2</sub> emissions by 63%</li> <li>• Commit ourselves to acquire SBT certification within two years</li> <li>• Aim to achieve carbon neutrality (Scope 1 and 2) in 2050</li> </ul>
<b>S</b> <b>(Social)</b>	<ul style="list-style-type: none"> <li>• Secure human resources that reflect changes in the businesses (especially nurturing of global human resources)</li> <li>• Strategically strengthen human resources for potential executive candidates</li> <li>• Personnel strategy with focus on personnel composition in 2030</li> <li>• Further pursuit of diversity (appointing local staff members to management of local subsidiaries, and participation of women and people with disabilities)</li> </ul>
<b>G</b> <b>(Governance)</b>	<ul style="list-style-type: none"> <li>• Development of risk management structure that reflects changes in the business environment and strikes a good balance between offensive and defensive approaches</li> </ul>

- Aiming for carbon neutrality by 2050; 2030 interim target raised  
 (Initial goal) Reduce energy-related CO<sub>2</sub> emissions by 50%  
 (After revision) Reduce Scope 1 and 2 CO<sub>2</sub> emissions by 63%



※ Consolidated subsidiaries as of March 31, 2024 are included. Companies that have been deconsolidated by the end of March 2024 (including Japan Waste) are retroactively treated up to FY2015.





# AIRE

Think circular