

## Notice

This document is an excerpt translation of the original Japanese document and is only for reference purposes. In the event of any discrepancy between this translated document and the original Japanese document, the latter shall prevail.



**HEROZ**  
JAPAN

Presentation Material for  
FY04/2022 Q1 Financial Results

September 10, 2021

HEROZ, Inc. (4382)

The logo for HEROZ JAPAN is displayed in white text on an orange background. The word "HEROZ" is in a large, bold, serif font, and "JAPAN" is in a smaller, all-caps, sans-serif font directly below it.

**HEROZ**  
JAPAN

- 1. Business Overview**
2. FY04/2022 Q1 Performance
3. Growth Strategy
4. Reference Materials

# Company Overview

---

<b>Name</b>	HEROZ, Inc.
<b>Location</b>	PMO Tamachi 2F, 5-31-17 Shiba, Minato-ku, Tokyo
<b>Established</b>	April 2009
<b>Representatives</b>	Takahiro Hayashi/Tomohiro Takahashi
<b>Business Description</b>	AI (B-to-B) services: HEROZ Kishin AI (B-to-C) services: "Shogi Wars", etc.
<b>Membership</b>	Japan Deep Learning Association, The Japanese Society for Artificial Intelligence

---

## 2019

Listed on the First Section of Tokyo Stock Exchange (TSE)

## 2018

Listed on Tokyo Stock Exchange (TSE) Mothers  
Capital and business alliance with Netmarble Games Corporation

## 2017

Capital and business alliances with Takenaka Corporation and Koei Tecmo Games

## 2016

Capital and business alliance with Bandai Namco Entertainment

## 2013

Shogi AI, developed by HEROZ engineers, defeated a shogi professional

## 2012

Launched mobile app, "Shogi Wars"



Representative Director and Co-CEO

## Takahiro Hayashi

Graduated from Waseda University  
Joined NEC as a technology engineer  
Experience at IT strategy division, business planning division  
Founded HEROZ



Representative Director and Co-CEO

## Tomohiro Takahashi

Graduated from Waseda University  
Joined NEC as a technology engineer  
Experience at Business Planning Division, BIGLOBE  
Founded HEROZ

## Shogi Track Record

Amateur 6<sup>th</sup> dan (highest rank after becoming national amateur champion)  
7<sup>th</sup> dan, Shogi Wars  
Amateur Kisen Champion (7-time title defender as national champion)  
Played against Yoshiharu Habu (permanent 7 title holder)



Director, COO and CFO

## Daisuke Asahara

Graduated from Kyoto University  
MBA from Wharton School  
ex-Goldman Sachs

Director and CTO

## Keiichi Iguchi

Graduated from  
Tokyo Institute of Technology  
Joined NEC Central Research Labs

# Creating the future through artificial intelligence (AI) revolutions

## Chess AI



Deep Blue ('97)  
defeated a  
professional Chess  
player

**IBM**

## Shogi AI



AI developed by our  
engineers defeated a  
professional Shogi  
(Japanese Chess)  
player ('13)

**HEROZ**  
JAPAN

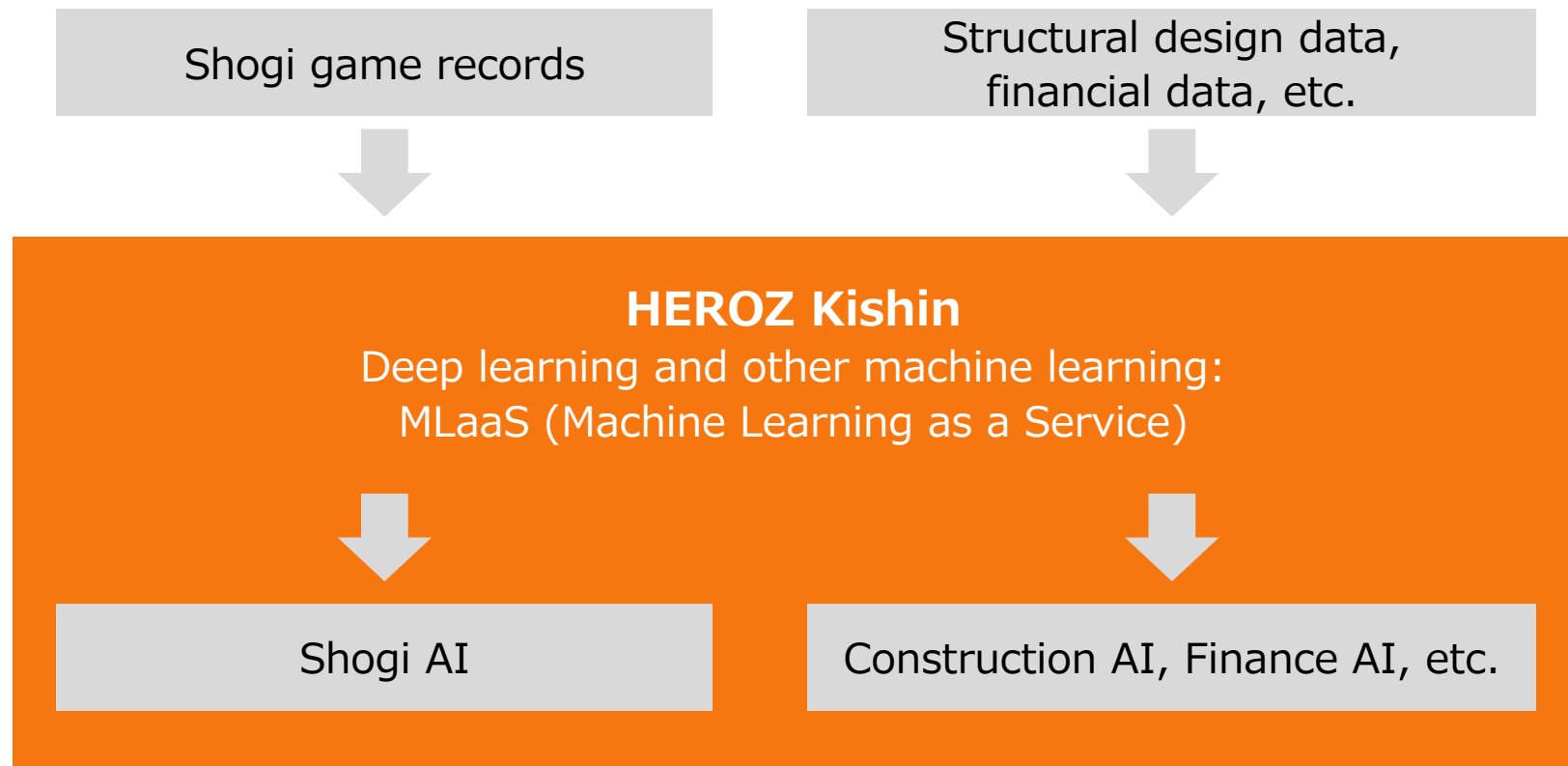
## Go AI



Google acquired Deep Mind  
( '14)  
AlphaGo, developed by  
Deep Mind, defeated a  
professional Go player  
( '16)

**Google**

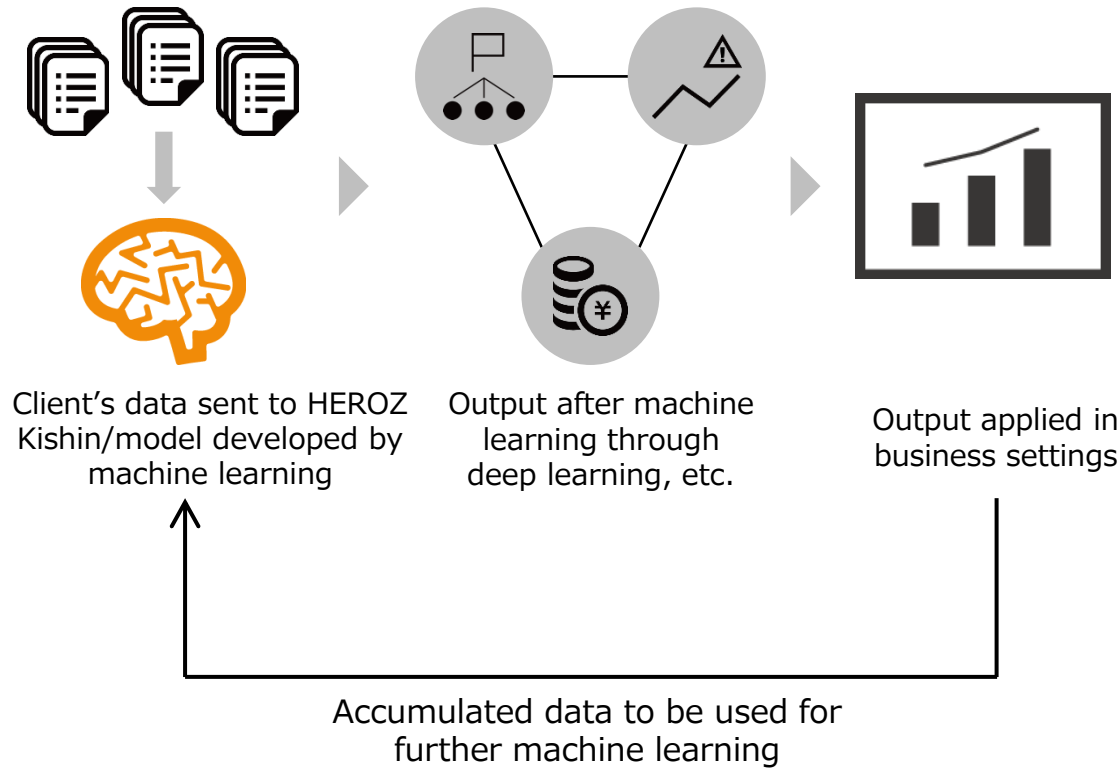
# B-to-B Services: Machine Learning by Replacing Shogi Game Records with Other Data



MLaaS : What is Machine Learning as a Service?

Provides models, developed by machine/deep learning, as a service

# B-to-B Services: Profit Model and High Switching Costs



**Output precision increases through repeated machine learning**

Research/develop Shogi AI

Standardize AI technology accumulated through shogi AI

Establish "HEROZ Kishin" = MLaaS (Machine Learning as a Service)

Establish an infrastructure which allows HEROZ to provide AI services efficiently to solve various challenges in various industries just by changing input data

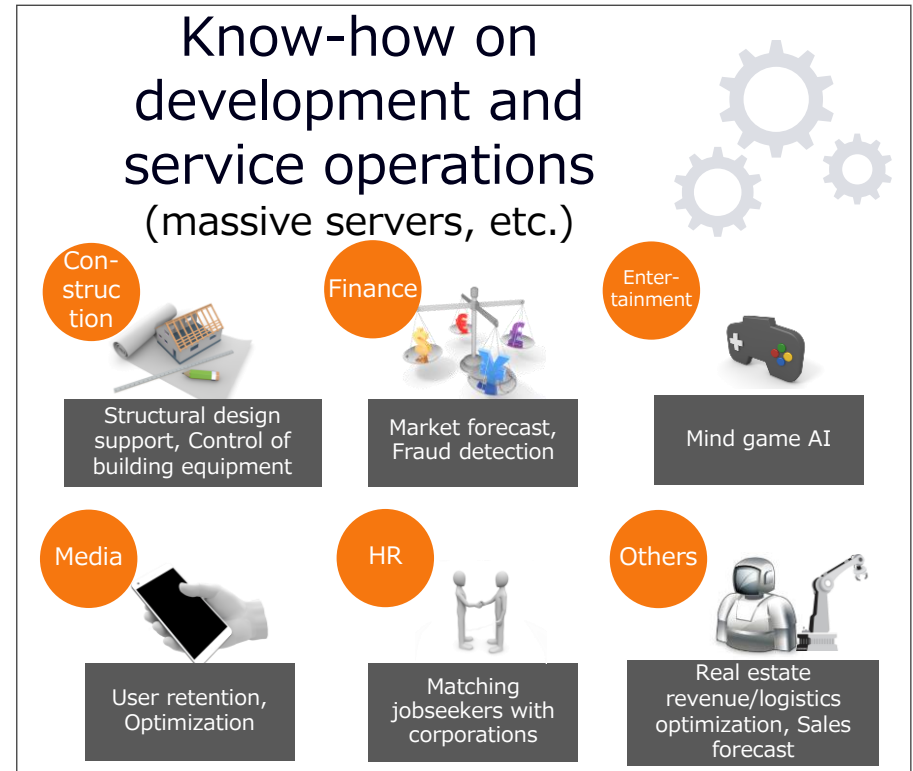
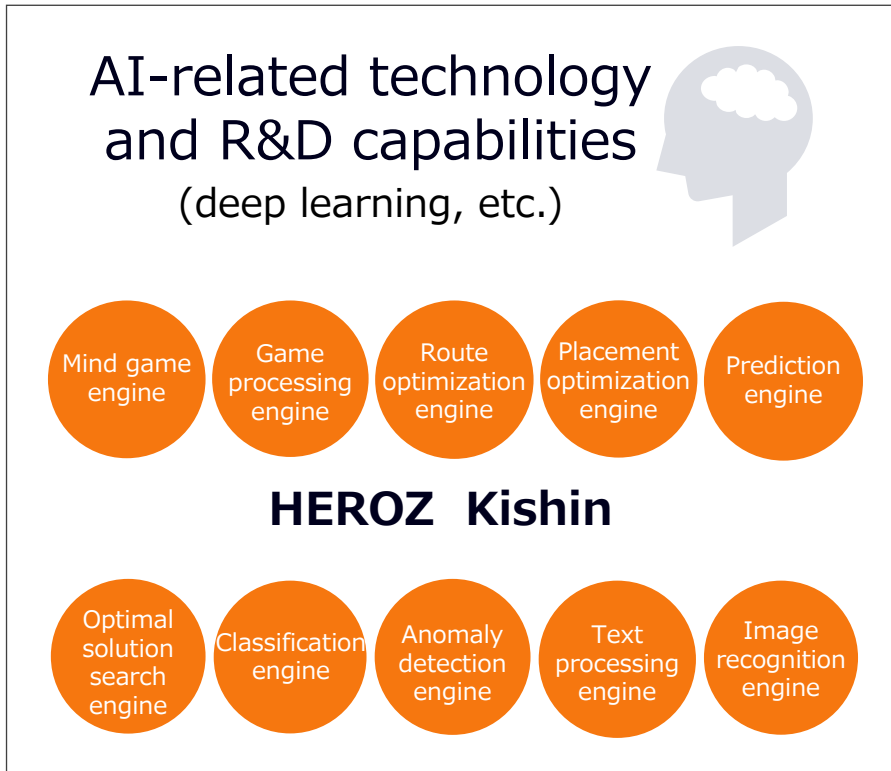
Provide comprehensive AI services with massive servers

Achieve stable, sustained earnings and high switching costs

**Earning structure: initial setup fee and ongoing fees**

# B-to-B Services: Engines included in HEROZ Kishin and Examples of Applications

- Create AI products by combining engines and achieve an efficient operating structure



We aim to create the industry standard for AI in each sector through collaboration with companies which own high-quality private data



# B-to-B Services: Areas of Focus and Examples of Services Provided

- Focusing on construction, finance, and entertainment for the foreseeable future
- Earning structure is initial setup fee and ongoing fees

\*Examples of clients served

## Construc- -tion

想いをかたちに 未来へつなぐ



Structural design support,  
Construction support, Control of  
building equipment, etc

## Fi- -nance



Market forecast, Fraud  
detection, etc

## Enter- -tainment

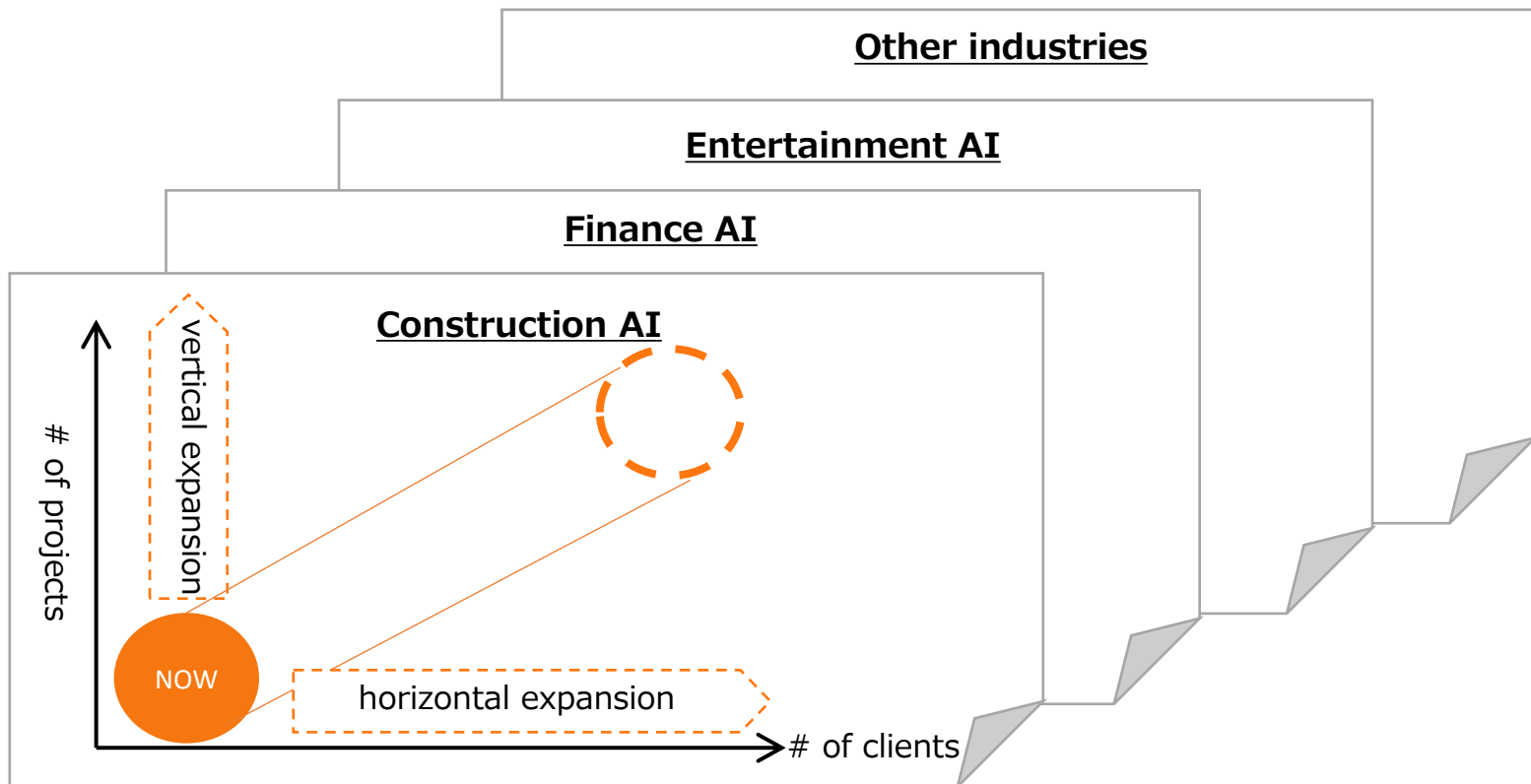


Creation of high-quality NPCs,  
game balance adjustment, etc.  
(In B-to-B service, HEROZ is  
not a game  
operator/publisher but a  
background AI provider)

Initial setup fees: new revenue recognition standard are applied since May 2021  
Ongoing fees: mostly fixed fees recognized monthly

# B-to-B Services: horizontal x vertical expansion across industries

- We aim to create industry-standard AI through horizontal and vertical expansion, applying into various industries
- After creating the industry-standard AI, we plan to form an ecosystem based on it



Charging fees for B-to-C content which user AI

- Leveraging AI-related technology to provide mind game mobile apps such as shogi
- Shogi Wars has remained cash cow backed by increase of paid users on a YoY basis
- Staying longer at home due to Covid-19 has led to increased demand for our mobile apps, with an increase in our paid active user base



Shogi Wars



Animal Shogi Wars

Earning structure: monthly membership fees, Kishin (AI) usage fees, etc.

The logo for HEROZ JAPAN is displayed in white text on an orange background. The word "HEROZ" is in a large, bold, serif font, and "JAPAN" is in a smaller, all-caps, sans-serif font directly below it.

HEROZ  
JAPAN

1. Business Overview
- 2. FY04/2022 Q1 Performance**
3. Growth Strategy
4. Reference Materials

- We believe that EBITDA, as calculated below, is our key performance indicator

$$\text{EBITDA} = \text{Operating Profit} + \text{Depreciation/Amortization Expenses}$$

- In AI-related businesses, server investments, etc. are required to engage in advanced machine learning, leading to various depreciation/amortization expenses. We aim to continuously enhance enterprise value/equity value via EBITDA growth, without being concerned about fluctuations in one-time depreciation/amortization expenses.
- In-house compute servers are mainly depreciated based on the declining-balance method with a useful life of 5 years.

# Performance Overview (May-July 2021)

- Revenues of AI (B-to-B) decreased due to the termination of gaming services in our entertainment AI etc. Revenues of AI (B-to-C) increased by stay-at-home demand
- EBITDA and other profits made progress as forecasted while they decreased on a year-on-year basis by our investment for the medium-to-long term growth

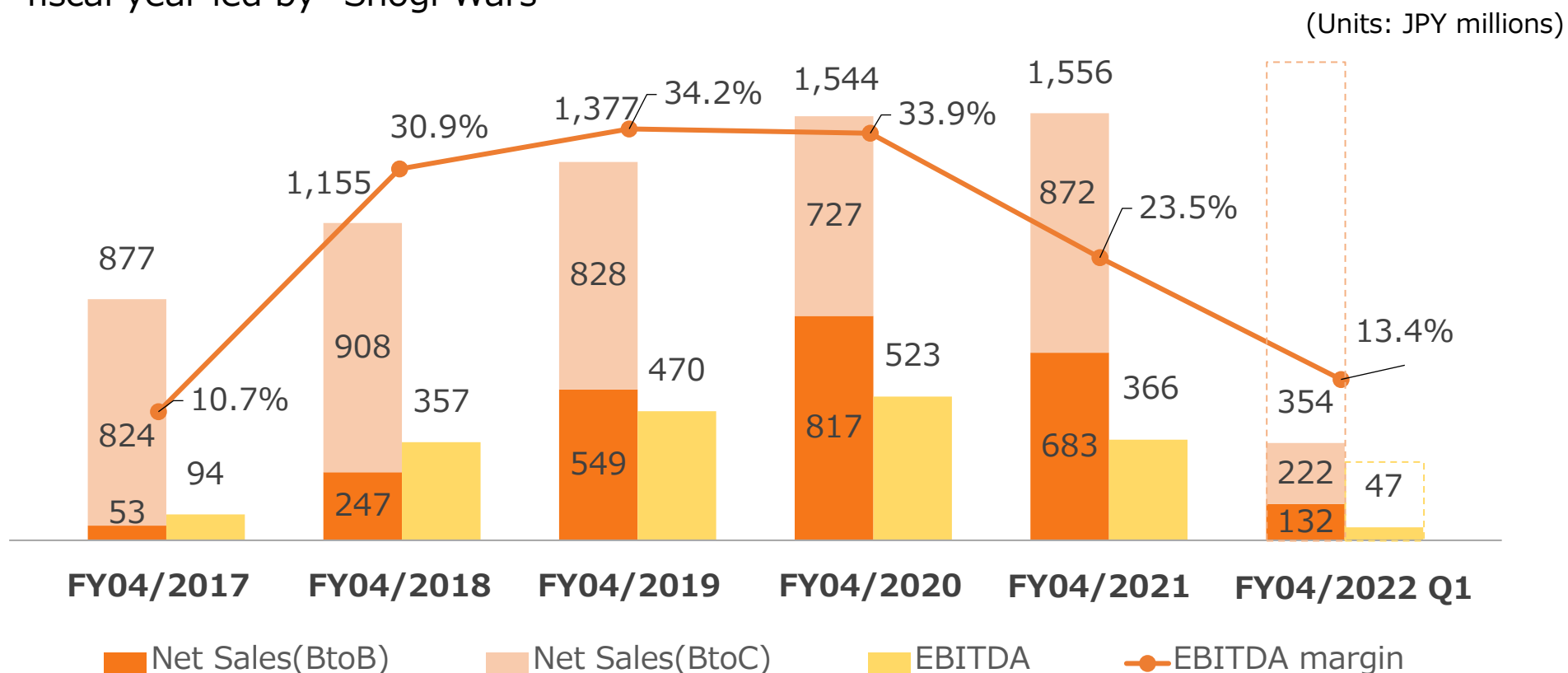
(Units: JPY millions)	FY04/2022 Q1 Actual	(Reference) FY04/2021 Q1 Actual	(Reference) YoY**	FY04/2022 Forecast	Progress
Net Sales	354	367	△3.3%	1,700	20.9%
EBITDA*	47	83	△42.8%	280	17.0%
<i>EBITDA Margin</i>	<i>13.4%</i>	<i>22.6%</i>	–	<i>16.5%</i>	–
Operating Profit	9	69	△86.8%	100	9.2%
<i>Operating Margin</i>	<i>2.6%</i>	<i>19.0%</i>	–	<i>5.9%</i>	–
Ordinary Profit	6	67	△90.5%	90	7.2%
Net Income	3	46	△92.3%	63	5.7%

\* EBITDA = Operating Profit + Depreciation Expenses + Amortization of Lease Deposits

\*\*As the revenue recognition accounting standard has been applied from the current fiscal year, comparisons with the previous year (under previous standard) are for reference only

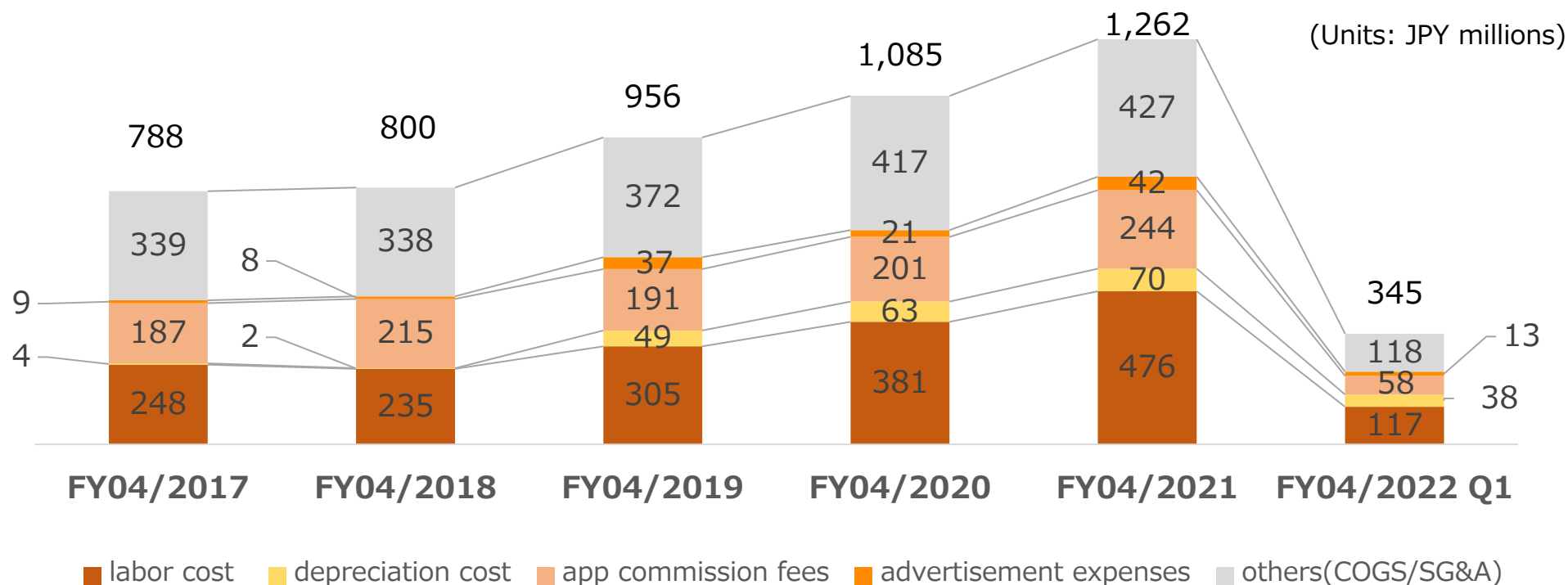
# Net sales and EBITDA Trends

- We forecast over 20% year-on-year revenue growth for AI (B-to-B) services, the core pillar of our growth strategy, in FY04/2022 as our business risks associated with Covid-19 are being resolved
- Net sales of AI (B-to-C) services increased compared with our forecast and the previous fiscal year led by “Shogi Wars”



# COGS and SG&A Trends

- Labor cost has increased on a year-on-year basis and is expected to keep growing to increase our engineering capacity, which will lead to our medium-to-long term growth
- In addition, there were expenses to improve the workplace environment to counter COVID-19, an increase in size-based business tax, and anticipatory investments of proceeds via public offering for our growth strategy. Although profits were down compared with the previous year, they are in line with our forecast.





# Balance Sheet (as of July 31, 2021)

- B/S remains strong backed by cash and deposits increased via public offering in 2019
- We plan to invest them in efforts to achieve the medium-to-long term growth strategy (e.g. hiring for AI engineers, in-house computing servers and external cloud computing services, expansion of office space, investments to companies with peripheral technologies which can be applied to our operations, working capital) until 2022

Units: JPY millions	As of 7/31/2021	(Reference) As of 4/30/2021
Current Assets	5,763	5,786
Cash and deposits	5,555	5,554
Fixed Assets	796	759
Property, plant and equipment	383	424
Intangible assets	16	17
Investments and other assets	396	318
Total Assets	6,560	6,546
Current Liabilities	169	143
Fixed Liabilities	—	—
Net Assets	6,390	6,403

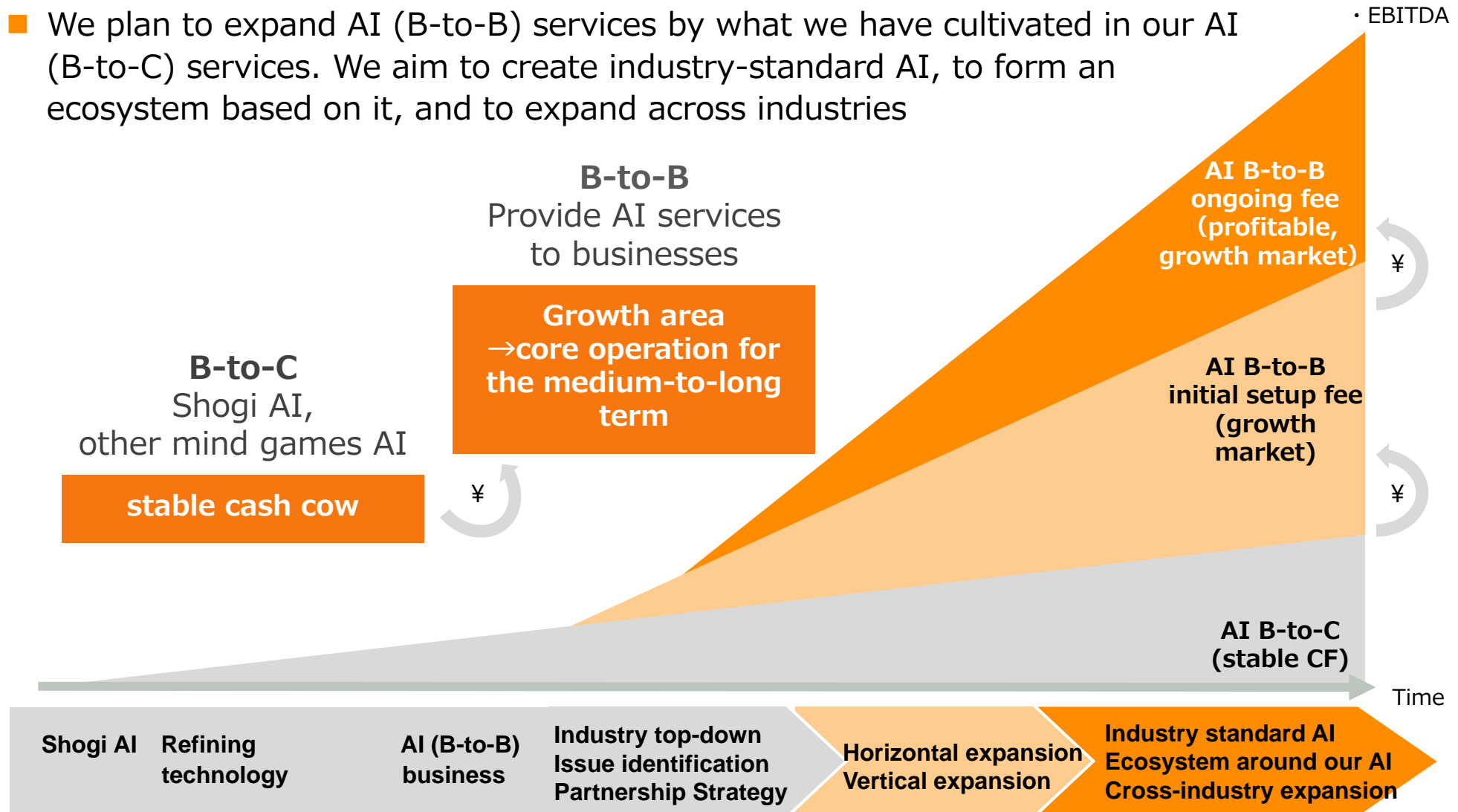
The logo for HEROZ JAPAN is displayed in white text on an orange background. The word "HEROZ" is in a large, bold, serif font, and "JAPAN" is in a smaller, all-caps, sans-serif font directly below it.

HEROZ  
JAPAN

1. Business Overview
2. FY04/2022 Q1  
Performance
- 3. Growth Strategy**
4. Reference Materials

# Medium-to-long term Growth Strategy

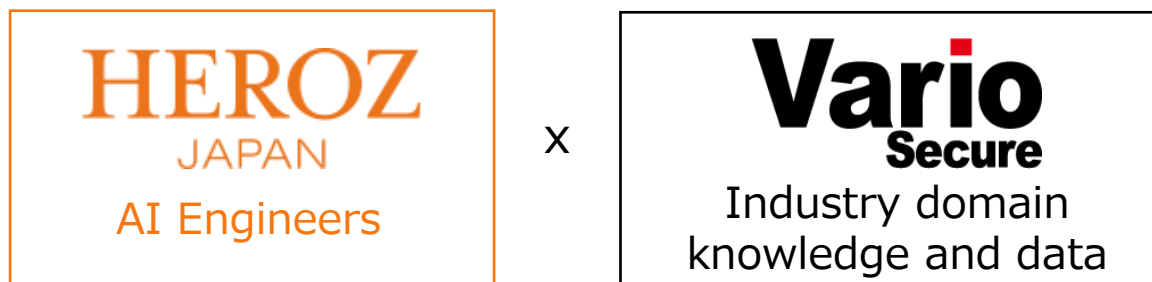
- We plan to expand AI (B-to-B) services by what we have cultivated in our AI (B-to-C) services. We aim to create industry-standard AI, to form an ecosystem based on it, and to expand across industries



- HEROZ entered into a capital and business alliance agreement with Vario Secure (4494) on September 10, 2021

- Business Alliance

HEROZ and Vario Secure aim to generate new products and services, maximizing synergies to increase the corporate value of both companies by mutually providing and collaborating on management resources



- Capital Alliance

HEROZ plans to acquire 1,224,000 shares of common stock of Vario Secure (32.31% of the total number of shares issued and outstanding as of August 31, 2021) held by iSigma Business Advancement Fund No. 2 and i-Sigma BAF Officers' and Employees' Fund 5i Partnership for 1,958,400 thousand yen

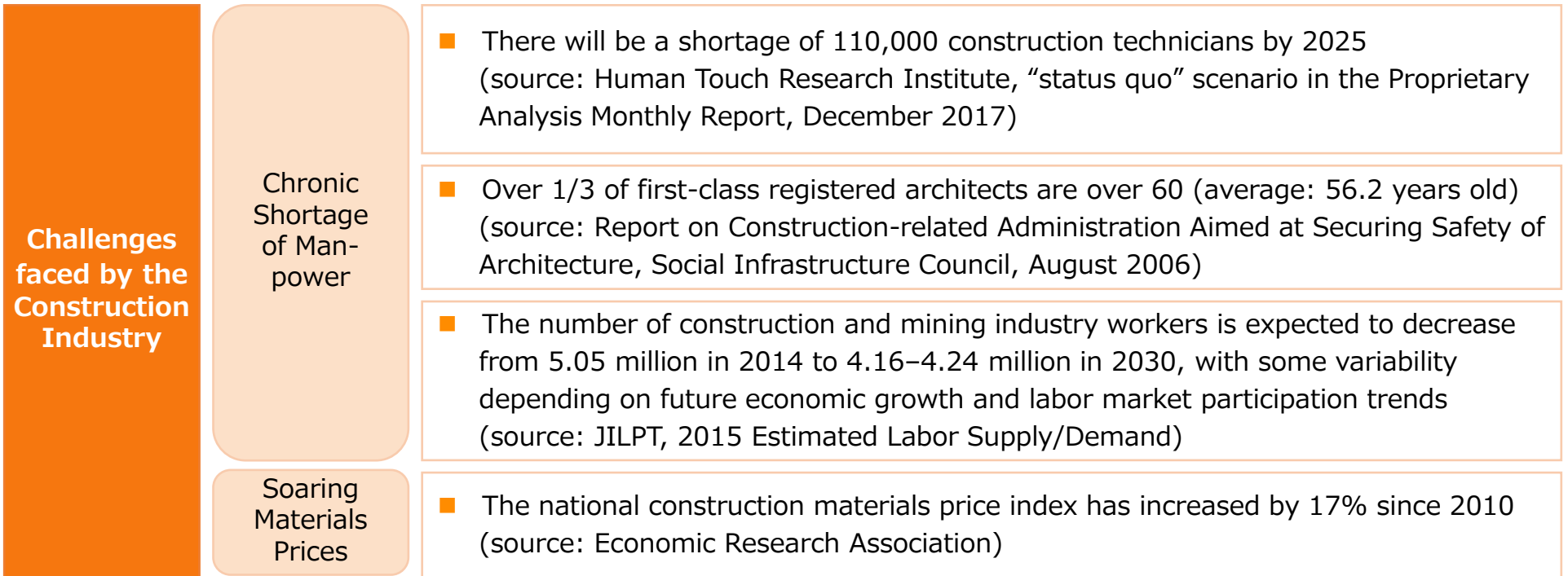
The logo for HEROZ JAPAN is displayed in white text on an orange background. The word "HEROZ" is in a large, bold, serif font, and "JAPAN" is in a smaller, all-caps, sans-serif font directly below it.

HEROZ  
JAPAN

1. Business Overview
2. FY04/2022 Q1 Performance
3. Growth Strategy
- 4. Reference Materials**

# Potential AI Demand in Our Areas of Focus

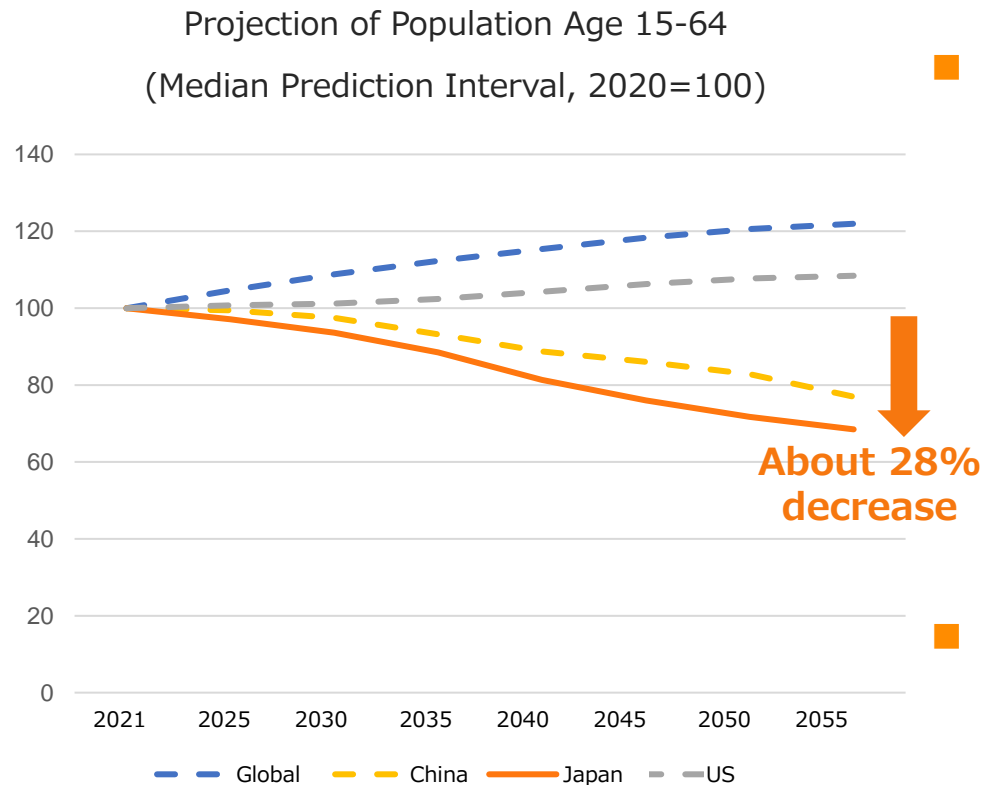
- We believe there is also significant potential demand for enhancing operational efficiency through AI in the construction industry, which is one of our areas of focus



- We entered into a capital and business alliance with Takenaka Corporation in 2017 and became a member of i-Construction. We aim to create the industry standard AI for the construction industry, enhancing productivity and creating a new, attractive construction site

# Japan: Potential AI Demand is Among the Largest Worldwide

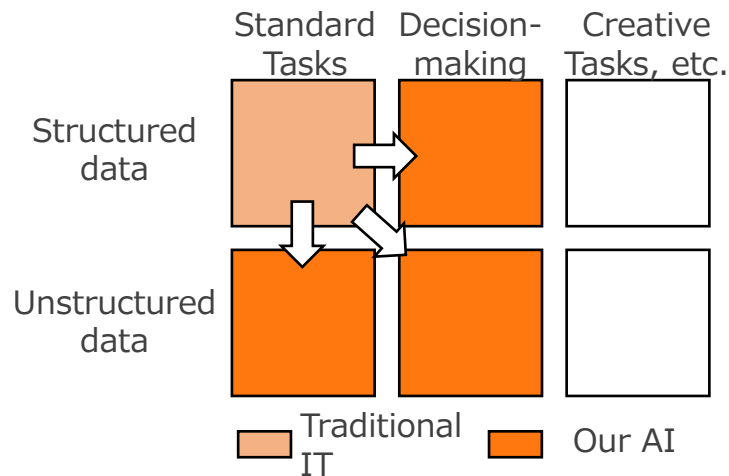
- Potential AI demand in Japan can be expected to be among the largest worldwide, as the working population is expected to decrease significantly going forward



- When defining the working population as those aged 15-64, the world average is forecasted to increase by about 12% from 2020 to 2035 and by about 21% from 2020 to 2055. On the other hand, the working population is expected to decrease by about 11% and about 28% during the same periods, respectively
- Based on such forecasts, the Japanese working population will show the largest decrease among leading GDP nations

Source: Prepared by HEROZ based on United Nations, World Population Prospects, The 2019 revision

- Domestic DX (digital transformation) is expected to accelerate due to the future decrease in the working population as well as the impact of the COVID-19 pandemic
- AI allows for DX of a wide variety of operations including those involving decision-making, which were previously considered difficult to automate



- DX will begin with standard tasks based on structured data and is expected to expand to decision-making and tasks which utilize unstructured data
- Our AI can automate a wide variety of operations including those requiring decision-making. We have also achieved DX for unstructured data, which were traditionally considered difficult for DX
- We are promoting DX and building a track record in areas including construction, finance, and entertainment



The contents set out in this material are prepared based on generally acknowledged economic, social and other conditions, and on certain assumptions deemed rational by HEROZ, Inc. and may therefore be subject to change without prior notice due to changes in the managerial environment or for other reasons.

The forward-looking statements set out in this material including performance outlooks are based on information currently available to HEROZ, Inc. and on certain assumptions deemed rational, and may therefore differ materially from actual results due to uncertainties in judgements or assumptions, or for other reasons.

Such factors of uncertainty and change include both general, domestic and international economic conditions, such as general industry and market conditions, interest rates, and foreign exchange fluctuations. HEROZ, Inc. shall not undertake any obligations to update or revise any forward-looking information set out in this material even in the event that new information becomes available or certain events occur hereafter.

This material is an excerpt translation of the original Japanese material and is only for reference purposes. In the event of any discrepancy between this translated material and the original Japanese material, the latter shall prevail.