

Notice

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HEROZ
JAPAN

Presentation Material for
FY04/2021 Q2 Financial Results

December 11, 2020

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.

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Company Overview

Name	HEROZ, Inc.
Location	PMO Tamachi 2F, 5-31-17 Shiba, Minato-ku, Tokyo
Established	April 2009
Representatives	Takahiro Hayashi/Tomohiro Takahashi
Business Description	AI (B-to-B) services: HEROZ Kishin AI (B-to-C) services: "Shogi Wars", etc.
Membership	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 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 COO
Tomohiro Takahashi

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

Shogi Track Record

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



Director and CFO

Daisuke Asahara

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

Director and CTO, Head of Development Div.

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)

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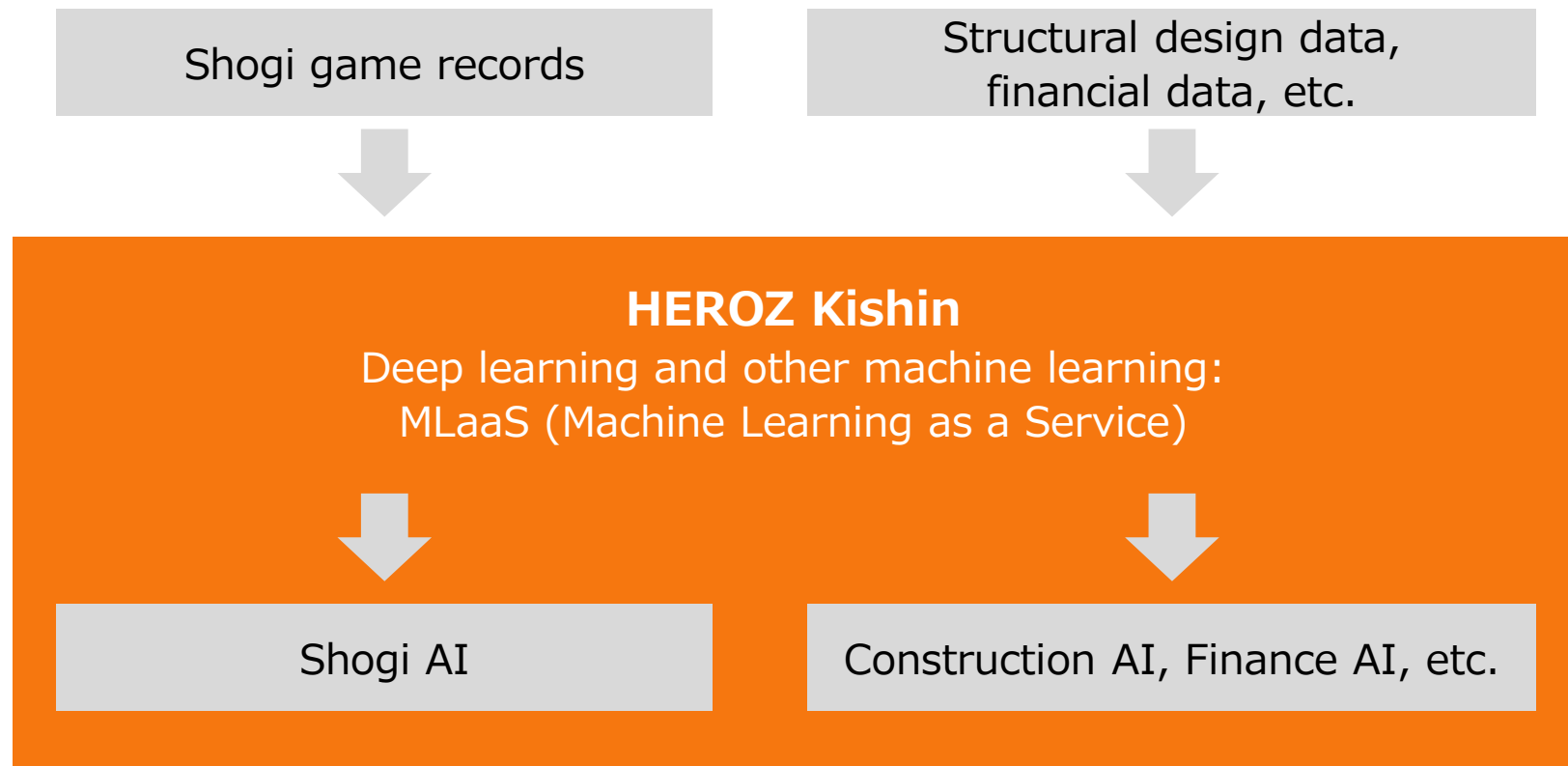
Go AI



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

Google

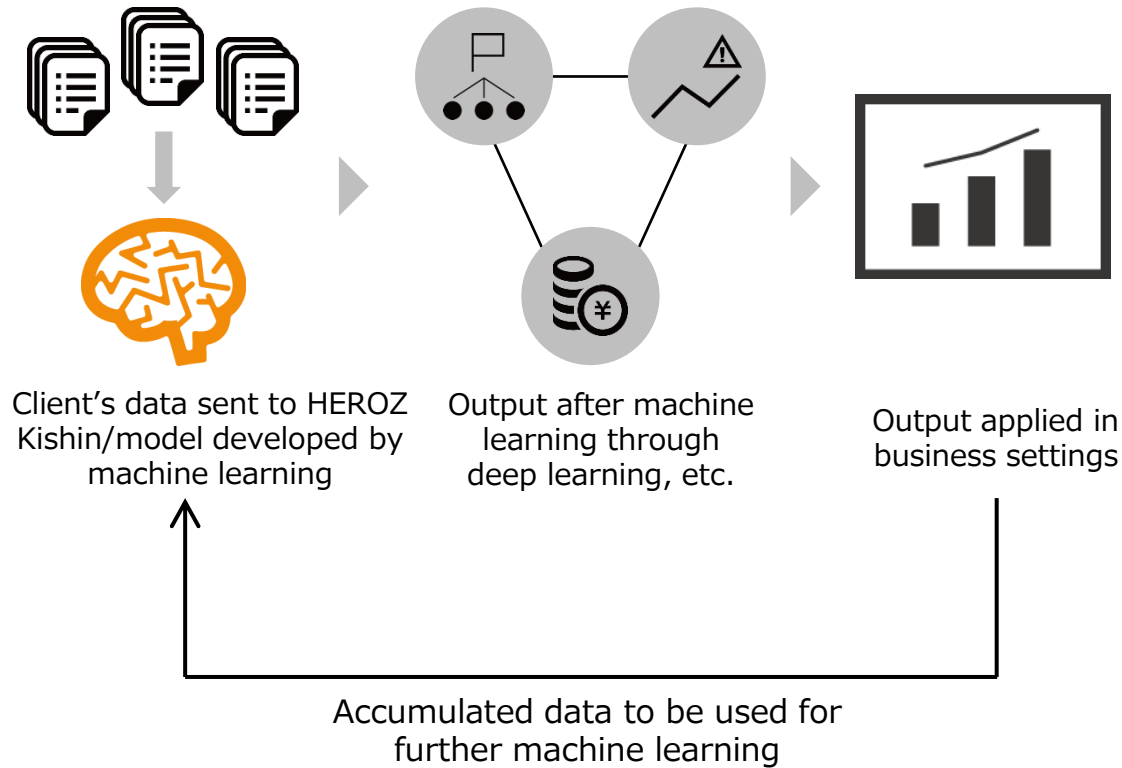
B-to-B Services: Machine Learning by Replacing Shogi Game Records with Other Data



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

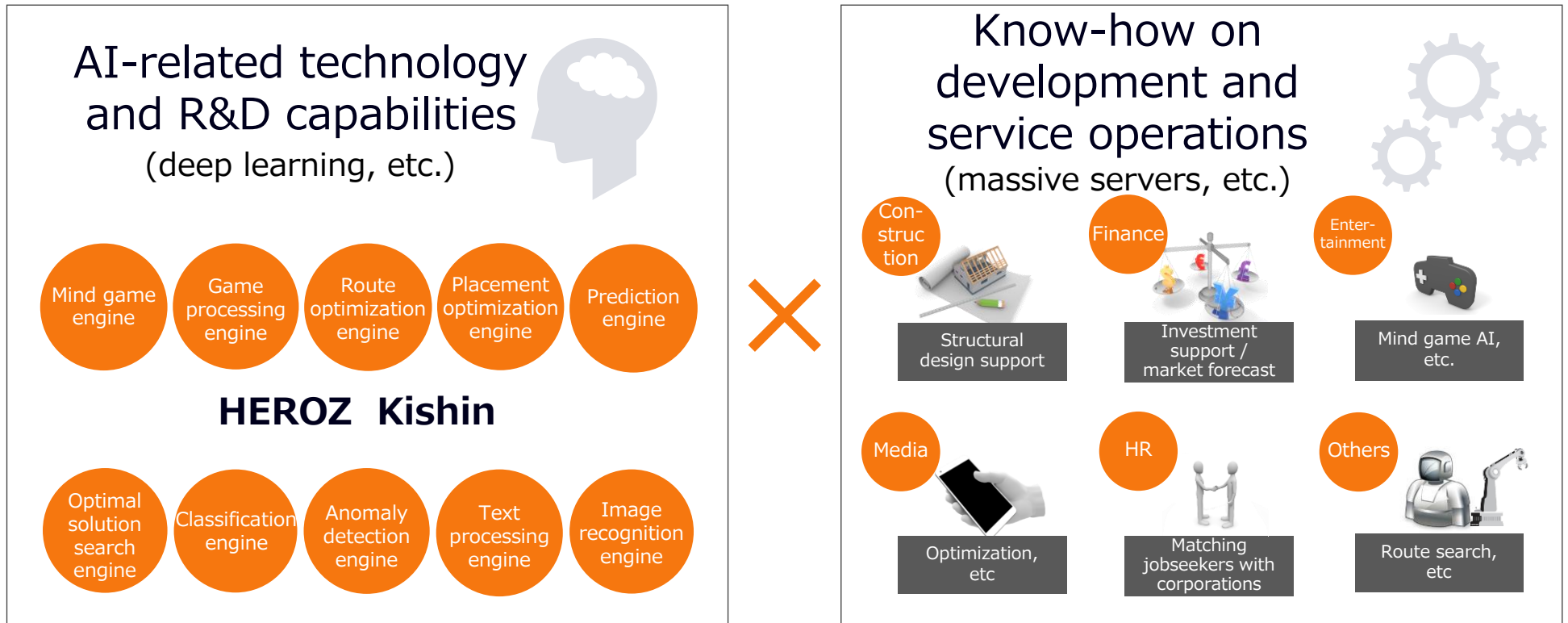
Provide comprehensive AI services with massive servers

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



Structural design support, etc.

Fi- -nance



Investment support,
market forecasts, etc.

Enter- -tainment



netmarble

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)

Depending on the types of projects,
ongoing fees in the form of revenue sharing is also introduced

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

- Leveraging AI-related technology to provide mind games such as shogi, chess, and backgammon worldwide
- Shogi Wars has remained cash cow backed by increase of paid users on a YoY basis
- Staying home by COVID-19 and shogi event held on our mobile app led to increased demand for our app, with an increase in our paid active user base



Shogi Wars



Animal
Shogi Wars



Igo Wars



CHESS HEROZ
(English)



BackgammonAce
(English)

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

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- 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.

COVID-19 Impact and Assumptions for Forecasts

- Risks relating to COVID-19 are as listed below.

	AI (B-to-B) Services	AI (B-to-C) Services
Materialized Impact	<ul style="list-style-type: none"> • Delays in documentation (contracts, receipts, etc.) and decreased opportunities for sales discussions due to work from home • Some clients have suspended new projects until the situation settles down 	<ul style="list-style-type: none"> • Increased revenues from mobile apps such as Shogi Wars
Potential Upside	<ul style="list-style-type: none"> • Increase in the use of AI through promotion of DX (digital transformation) , etc. 	<ul style="list-style-type: none"> • Further revenue increase in our mobile apps due to increased use of our online contents
Potential Downside	<ul style="list-style-type: none"> • Reduction in client budgets for IT investments, etc. 	<ul style="list-style-type: none"> • Troubles due to increased traffic

- FY04/2021 forecasts have been formulated based on the following assumptions
 - External environment: The increase in COVID-19 patients will settle down in the first half
 - Internal environment: Growth will slow down in the first half by slowdowns in progress of projects and reduced opportunities for sales discussions due to emergency declared by the government, but is expected to normalize in the second half
 - We plan to invest approximately ¥4 billion, proceeds from public offering in December 2019, in hiring for AI engineers, in-house computing servers and external cloud computing services, etc. until 2022. While earnings will decrease for the foreseeable future as a result, we expect earnings recovery after those investments are completed

Performance Overview (May-October 2020)

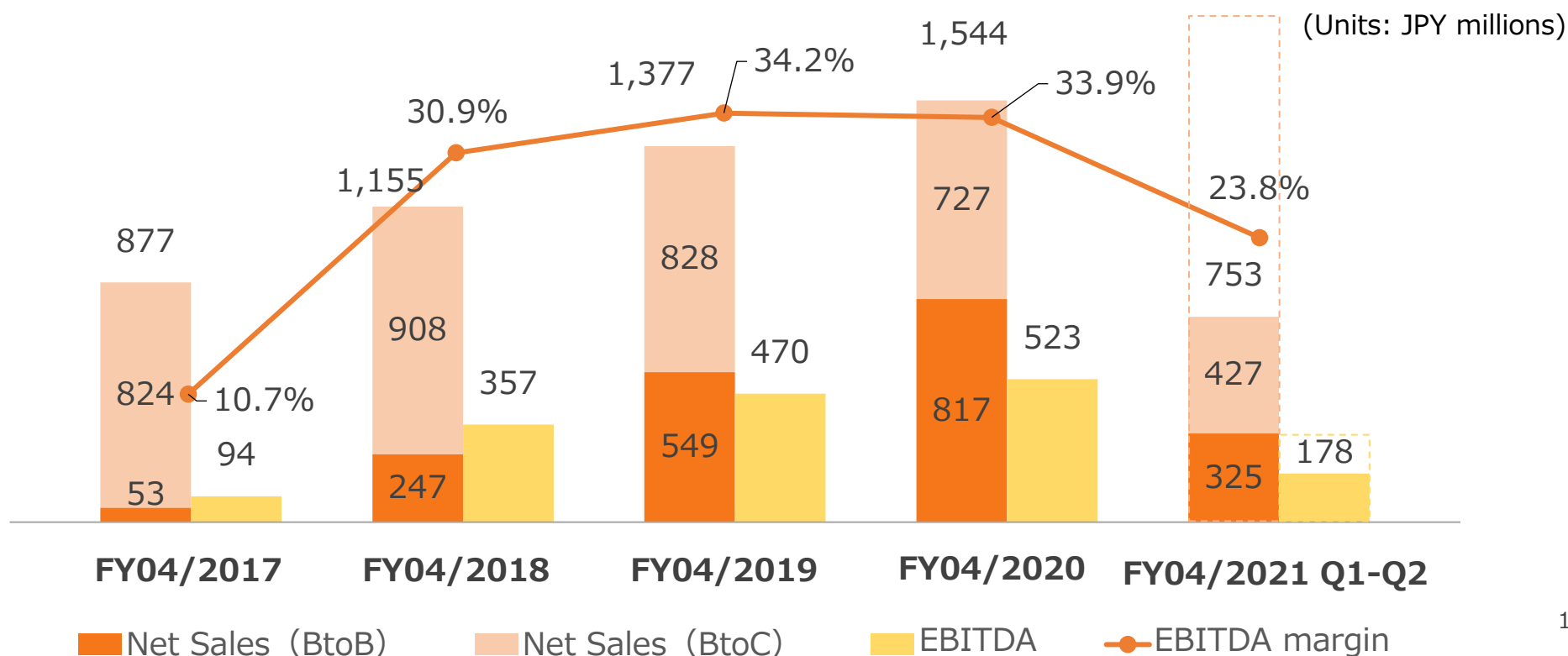
- Revenues decreased as forecasted in the previous page due to emergency declared for COVID-19 by the government, but is expected to be normalized in Q3 and thereafter
- EBITDA and other profits made steady progress towards achievement of fiscal year forecasts while they decreased on a year-on-year basis. We have been investing proceeds from public offering in December 2019 for our medium-to-long term growth

(Units: JPY millions)	FY04/2021 Q1-Q2 Actual	(Reference) FY04/2020 Q1-Q2 Actual	YoY	FY04/2021 Forecast	Progress
Net Sales	753	757	△0.5%	1,700	44.3%
EBITDA*	178	275	△35.1%	290	61.7%
<i>EBITDA Margin</i>	<i>23.8%</i>	<i>36.4%</i>	–	<i>17.1%</i>	–
Operating Profit	152	244	△37.5%	230	66.4%
<i>Operating Margin</i>	<i>20.3%</i>	<i>32.3%</i>	–	<i>13.5%</i>	–
Ordinary Profit	147	238	△38.4%	220	66.9%
Net Income	100	164	△39.0%	150	66.9%

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

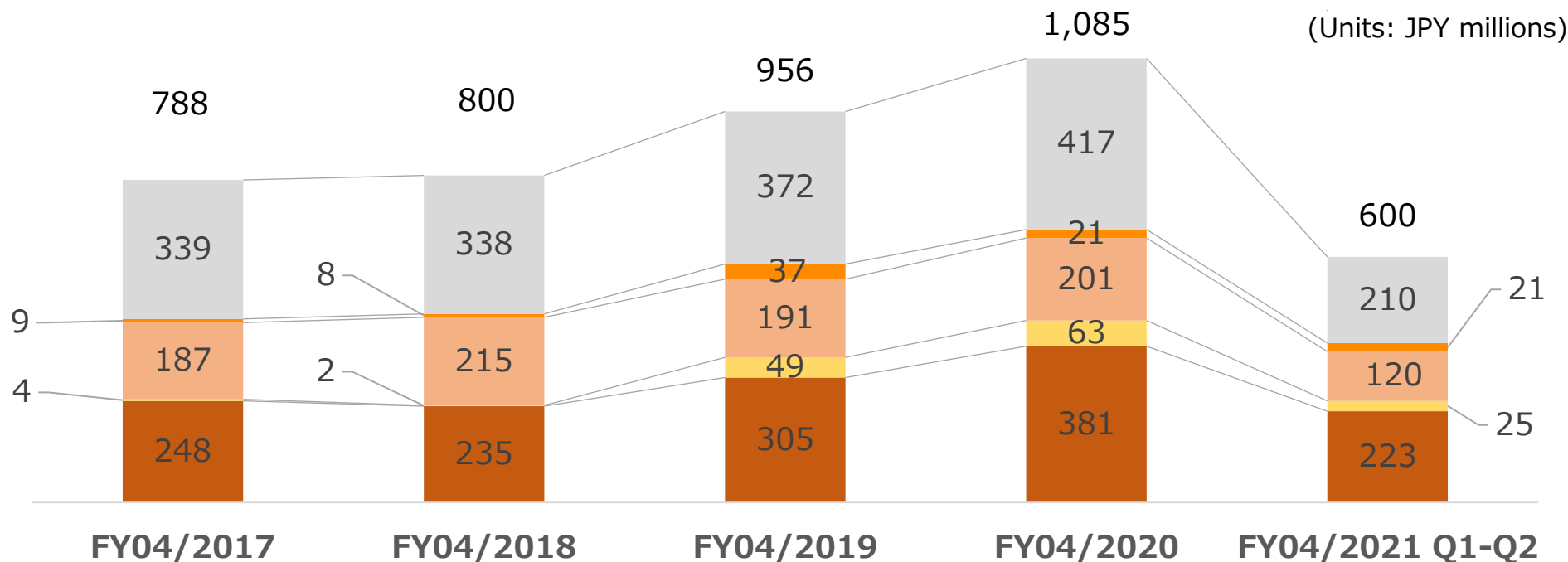
Net sales and EBITDA Trends

- Net sales of AI (B-to-B) services, the core pillar of our growth strategy, declined in the first half of FY04/2021 due to reduced opportunities for business meetings by COVID-19. For the full year, they are expected to grow compared with the previous year, based on the assumption that the business environment will normalize in the second half
- Net sales of AI (B-to-C) services increased compared with 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



■ labor cost ■ depreciation cost ■ app commission fees ■ advertisement expenses ■ others(COGS/SG&A)

Balance Sheet (as of October 31, 2020)

- 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 10/31/2020	(Reference) As of 4/30/2020
Current Assets	6,009	5,935
Cash and deposits	5,799	5,562
Fixed Assets	438	473
Property, plant and equipment	110	131
Intangible assets	6	6
Investments and other assets	321	334
Total Assets	6,447	6,408
Current Liabilities	164	226
Fixed Liabilities	-	-
Net Assets	6,283	6,182

(Reference) Initiatives to Prevent Spread of COVID-19

- We continue to promote efforts to prevent the spread of COVID-19 and prioritize health and safety of our stakeholders including our employees
- There is no significant impact on operations and labor productivity
- No officers or employees have been infected with COVID-19 to date

~April 2020

May

June~

Internal

- Introduced a selective system for work from home and flexible hours in February
- All officer and employees were instructed to work from home if at all possible, in April
- Set up an internal consultation desk for COVID-19
- Improved the work from home environment through reinforcement of VPN (virtual private network)

- Adopted an optional system for work from home and flexible hours based on Tokyo's roadmap against virus
- Alcohol sterilization and temperature measurements when entering the office
- Weekly online company-wide meeting

- Continue an optional system for work from home and flexible hours
- Promote an internal DX to improve our work productivity

External

- Transitioned to online internal/external meetings and recruiting interviews

- Alcohol sterilization and temperature measurements when entering the office
- Promoted shift to paperless work

- Held an online financial results meeting
- Held an online recruiting event

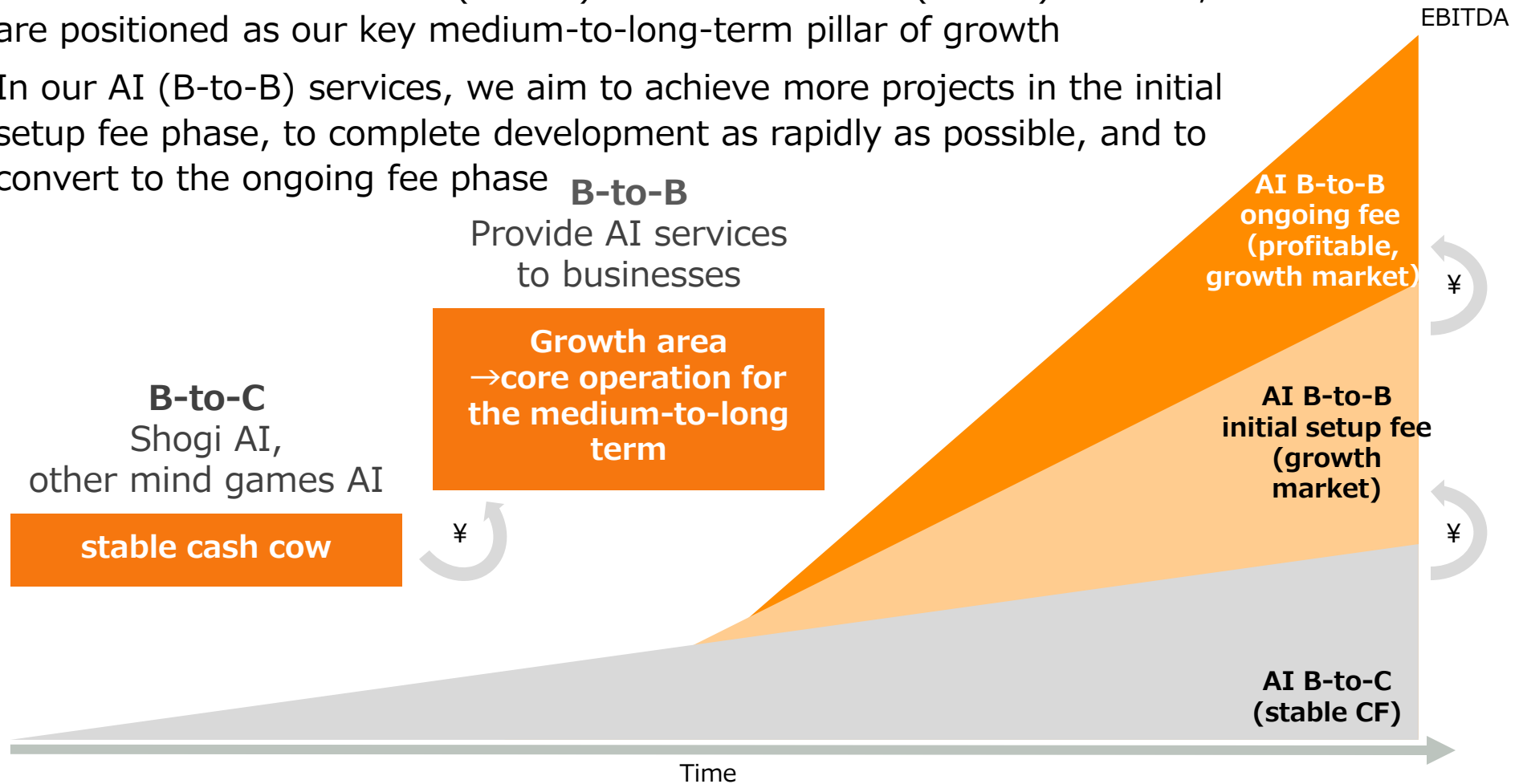
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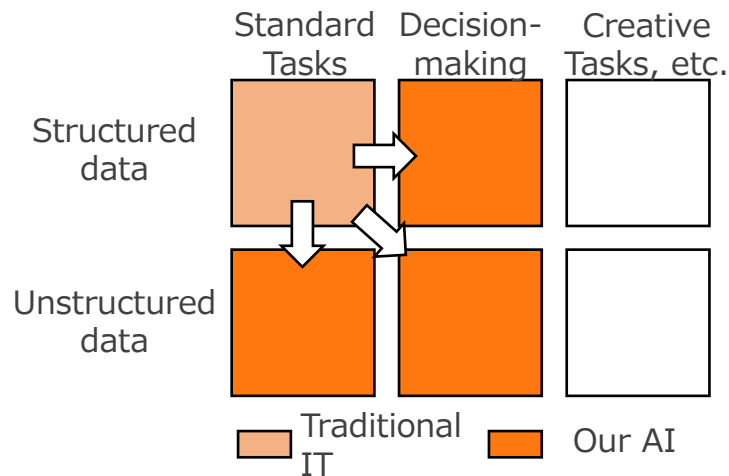
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Medium-to-long term Growth Strategy

- We aim to achieve EBITDA growth by investing our cash flows and leveraging our know-how from our AI (B-to-C) services to our AI (B-to-B) services, which are positioned as our key medium-to-long-term pillar of growth
- In our AI (B-to-B) services, we aim to achieve more projects in the initial setup fee phase, to complete development as rapidly as possible, and to convert to the ongoing fee phase



- 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

- HEROZ's Forecasting AI to Contribute to IRIS OHYAMA's Global SCM Reform
 - HEROZ began operating the sales forecasting AI for domestic products of IRIS OHYAMA Inc. (Representative Executive President: Akihiro Oyama, hereinafter "IRIS OHYAMA"), which has a product lineup of over 25,000 items in total, on October 1, 2020
 - In the future, we will continue to develop and provide AI for automation area, etc., in IRIS OHYAMA and promote digital transformation in its overseas business as well as domestic business

- Joining the "Space ICT Promotion Initiative Forum"
 - The National Institute of Information and Communications Technology (NICT) and Japan Aerospace Exploration Agency (JAXA) established the "Space ICT Promotion Initiative Forum" on September 2, 2020
 - We will contribute to society through the creation of new value, aiming at the multifaceted development of space communication technology and collaboration with advanced terrestrial communication technology, with the member companies of the "Space ICT Promotion Initiative Forum"

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Potential AI Demand in Our Areas of Focus

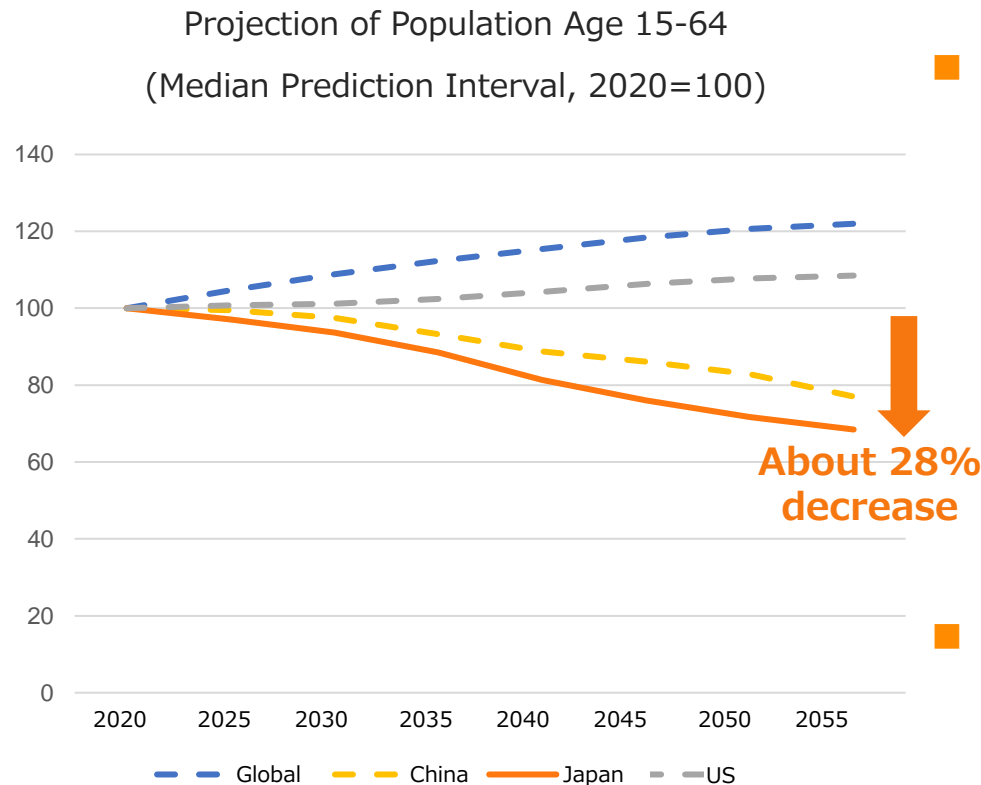
- We believe there is also significant potential demand for enhancing operational efficiency through AI in the construction industry, which is one of our areas of focus



- 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

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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.

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