

Presentation Material

for the First Half of the Fiscal Year Ending March 31, 2023

2022/11/10

Tokyo Stock Exchange Prime Market: Code 3676

<https://www.digitalhearts-hd.com/>

Business Results for the First Half of FY2022

(The six months ended September 30, 2022)

Both Businesses Achieved
**Significant
Increases in Sales**

Net sales

¥ **17,562** mn
(YoY130.1%)

- The Enterprise Business, our focus business, continued to **grow at a high rate of about YoY 1.6 times**, backed by the acceleration of DX.
- The Entertainment Business also achieved a **double-digit growth** due to strong sales for console games.
- 1H progressed **49.5%** of full-year target, **exceeded company forecasts**.

**New Record High
Profits**
in the First Half

Operating income

¥ **1,382** mn
(YoY100.9%)

- The Enterprise Business generated **stable profits** while implementing business foundation investments.
- The Entertainment Business achieved a **double-digit profit growth** due to the sales increase and a high gross margin.
- 1H progressed **42.0%** of full-year target, **in line with company forecasts**, including the impact of strategic investments.

**Significant growth
in EBITDA**
due in part to M&A

EBITDA

¥ **1,920** mn
(YoY117.7%)

- Both the Enterprise and the Entertainment Business achieved a **double-digit growth of EBITDA**, excluding the impact of amortization of goodwill.
- EBITDA of existing businesses excluding the impact of newly consolidated subsidiaries was 108.4% YoY, showing **steady cash flow expansion**.

Summary of Financial Results by Segment

(JPY mn)	1H FY2021	1H FY2022	YoY Change
Net sales	13,498	17,562	130.1%
Enterprise	4,863	7,614	156.6%
Entertainment	8,635	10,020	116.0%
Adjustments	—	-72	—
Operating income	1,370	1,382	100.9%
Enterprise	232	114	49.2%
Entertainment	1,906	2,192	115.0%
Adjustments	-768	-924	—
EBITDA	1,632	1,920	117.7%
Enterprise	376	443	117.8%
Entertainment	2,009	2,379	118.4%

Developing a Business Foundation for Future Growth

For AGEST, as the new Enterprise Business core company, improving the brand awareness, developing new working environment, and strengthening human resources.

Branding for engineers



Launch of "Tech Blog"

Seminars and lectures for engineers

New core subsidiary of the Enterprise Business, AGEST, Inc.



Creating an environment for engineers including new office and the educational institution, and totally new system environment



Succeeded Quality Assessment business From Sobal Corporation



- Approximately 130 test engineers
- Strengthen expertise in testing of major manufacturers' products and business systems

Integration of three domestic subsidiaries into AGEST, Inc.



ANET Corporation



Red Team Technologies Co., Ltd. LOGIGEAR JAPAN CORPORATION

Full reinforcement of human resources from sales, recruiting, and operating members of AGEST by hiring from outside and internal new assigning.

Equity finance proceeded **¥0.8 billion** *1

Details of finance

Total transaction size (plan) 4.2 billion yen (Approximate amount after payment of expenses)*2

Tenor : July 20, 2022 to July 19, 2024

*1 As of October 31, 2022

*2 Transaction size amounts (plan) may increase or decrease if the exercise price is revised or if the acquisition rights are not exercised during the period.

SGA Expenses as Growth Investment in 1H and Expected Effects for Enterprise Business

Strategically invest in growth of Enterprise Business
Build a basement for future business expansion by increasing human resources and strengthening the operational structure

AGEST

Investment in the first half

YoY **+0.32 bn yen**
(+0.56 bn yen /full year*)

*Increase in SG&A expenses excluding spot expenses

Improve organizational strength

(Personnel expenses)

+0.20 bn yen

Strengthen Branding (Sales and Recruiting)

+0.04 bn yen

Improve the environment for engineers

(Offices rent and others)

+0.05 bn yen

System infrastructure (System-related expenses)

+0.04 bn yen

Expected Effect Simulation: Profit improvement by increase in QA Solution Customers

- After this investment, aiming to increase the number of QA solution customers (sales growth) by more than 30% and cover the cost. (break even point = +20%)
- With strengthening the recruitment of engineers, aiming to achieve OP margin 7-8% as the second half of this year, and annual OP margin over 10% in the mid term period.

		FY2022	Simulation		
		Plan	①	②	③
Number of Customers	Company	830	166	249	415
Rate of increase	%		20%	30%	50%
Impact of increased sales	Millions of yen		1,992	2,988	4,980
Impact of increased profits	Millions of yen		598	896	1,494

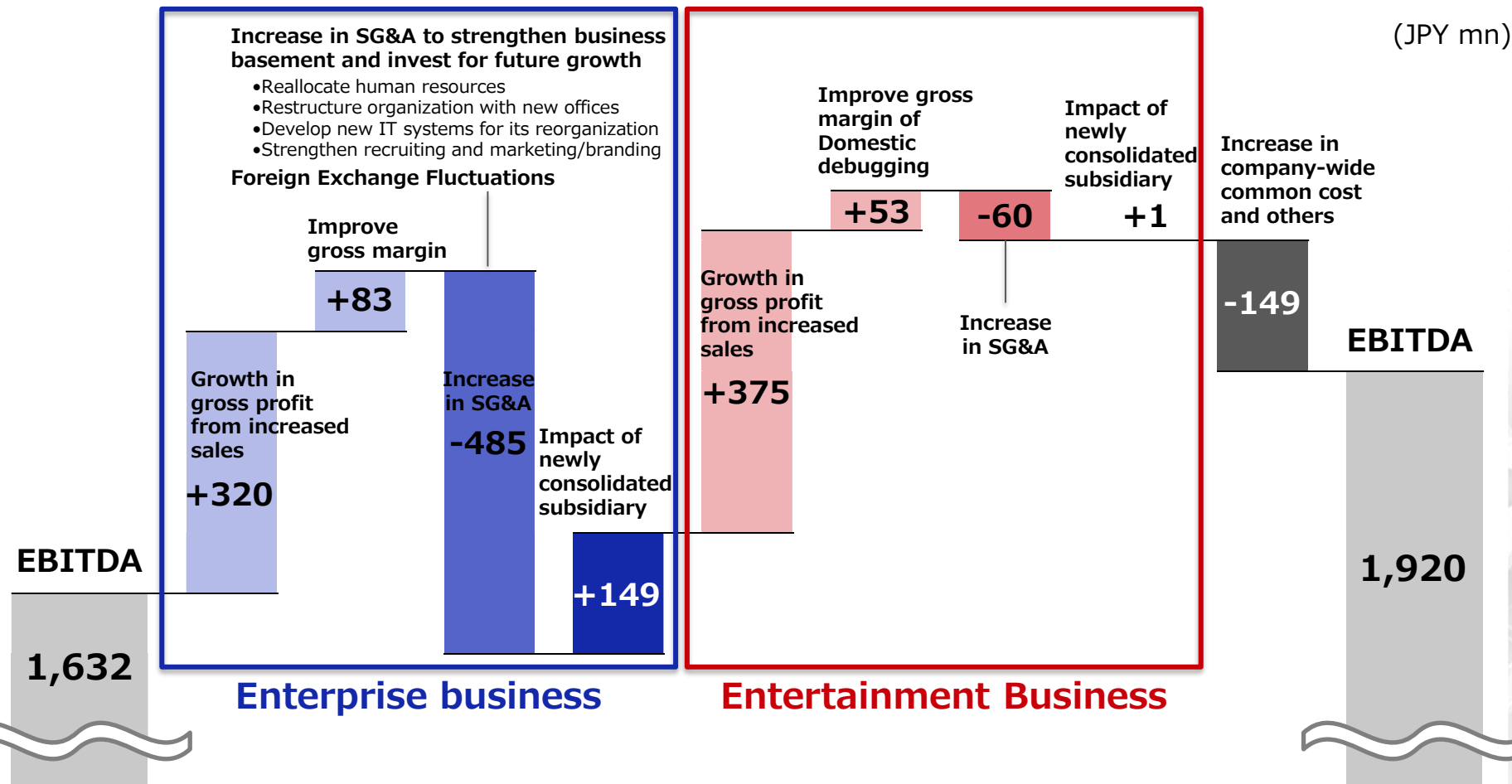
*Assumption: Average annual sales per customer = JPY12mn, Marginal profit ratio = 30%

Summary of Business Results for the Six Months Ended September 30, 2022

Significant increase in sales due to the growth of existing businesses and the impact of M&As. Operating income increased and EBITDA grew significantly, despite aggressive investment for growth.

(JPY mn)	1H FY2021	1H FY2022	YoY Change	
Net sales	13,498	17,562	4,063	130.1%
Cost of sales	9,562	12,376	2,814	129.4%
Cost of sales (%)	70.8%	70.5%		-0.4 points
Gross profit	3,936	5,185	1,248	131.7%
SG&A	2,566	3,802	1,236	148.2%
Operating income	1,370	1,382	12	100.9%
Operating income margin	10.2%	7.9%		-2.3 points
Ordinary income	1,431	1,527	95	106.7%
Profit attributable to owners of parent	917	950	32	103.5%
EBITDA	1,632	1,920	288	117.7%

While aggressively investing in the Enterprise Business for its developing business basement and future growth, **EBITDA grew by 117.7% YoY** due to the growth of existing businesses and the positive impact of M&As.

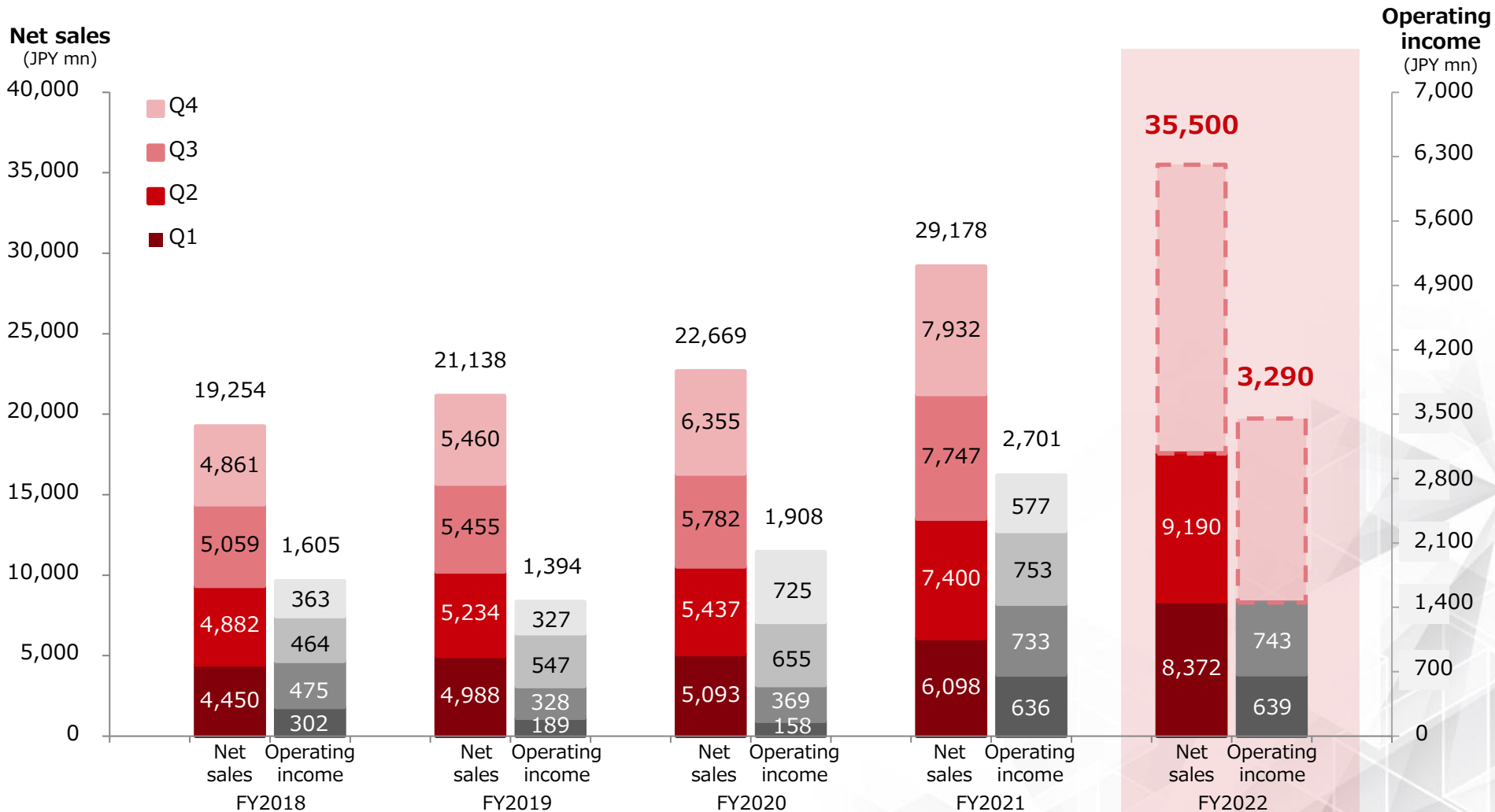


1H FY2021

1H FY2022

Trend in Net Sales and Operating Income

Both net sales and operating income **made good progress** as planned in 1H.
Aiming to achieve record highs in net sales and profits as a full year.



Consolidated Balance Sheets

(JPY mn)	Q4 FY2021 (As of March 31, 2022)	Q2 FY2022 (As of September 30, 2022)	YoY Change
Total assets	17,565	20,688	3,122
Current assets	10,392	12,182	1,790
Cash and deposits	5,208	6,850	1,641
Noncurrent assets	7,172	8,505	1,332
Property, plant and equipment	693	1,077	383
Intangible assets	5,094	5,750	655
Goodwill	4,763	5,301	538
Investments and other assets	1,384	1,678	293
Total liabilities	9,989	11,485	1,496
Current liabilities	9,679	11,330	1,650
Short-term loans	5,421	7,106	1,685
Noncurrent liabilities	309	154	-154
Total net assets	7,576	9,202	1,626
Shareholders' equity	6,776	7,779	1,002
Accumulated other comprehensive income	228	774	546
Subscription rights to shares	—	10	10
Non-controlling interests	572	638	66
Total liabilities and net assets	17,565	20,688	3,122

(JPY mn)	1H FY2021	1H FY2022	YoY Change
Net cash provided by operating activities	1,703	1,430	-273
(*Cash flows before income taxes paid)	2,053	1,843	-209
Net cash used in investing activities	-1,682	-1,496	185
Net cash provided by (used in) financing activities	316	1,488	1,171
Effect of exchange rate change on cash and cash equivalents	21	254	232
Net increase in cash and cash equivalents	359	1,676	1,317
Cash and cash equivalents at the beginning of period	5,041	5,173	132
Cash and cash equivalents at the end of period	5,400	6,850	1,449

Financial Results of the First Half by Segment and Full-year Forecast of FY2022

Notice regarding earnings by segment

- Net sales by segment include inter-segment sales or transfers. Segment income is based on operating income.
- Some changes were made to the sub-segments of the Enterprise Business in Q1 FY2022. For this reason, the figures for FY2021 and earlier by sub-segments of the Enterprise Business are reclassified to reflect the change in sub-segments for comparison purposes.

Changes in Sub-segments

Sub-segments in FY2022 are amended to reflect changes made to the services of the Enterprise Business.

*The changes are underlined

■ FY2021 and earlier

■ From FY2022

Reportable segments	Main Services
Enterprise Business	
<u>System testing</u>	System testing Vulnerability diagnosis
<u>IT service /Security</u>	<u>System development</u> <u>Introduction of ERP and CRM</u> <u>Penetration test</u> Security monitoring IT support IT engineer platform service

Reportable segments	Main Services	Main Operating Companies
Enterprise Business		
<u>QA solution</u>	System testing Vulnerability diagnosis <u>System development</u> <u>Introduction of ERP and CRM</u> <u>Penetration test</u>	AGEST, Inc. LogiGear group CEGB Co., Ltd.
<u>IT services and others</u>	Security monitoring IT support IT engineer platform service	AGEST, Inc. identity Inc.

Entertainment Business	
Domestic debugging	Debugging
Global and others	Translation / LQA Game software development Customer support Marketing support, etc.

Entertainment Business		
Domestic debugging	Debugging	DIGITAL HEARTS Co., Ltd.
Global and others	Translation / LQA Game software development Customer support Marketing support, etc.	DIGITAL HEARTS Co., Ltd. DIGITAL HEARTS CROSS group FLAME Hearts Co., Ltd. Aetas, Inc.

(Reason for Change)

- Through cross-selling initiatives, increasing in the number of projects providing "one-stop" service including development, testing, and security services.
- Aggressive M&As have led to an expansion in our range of solutions and group synergy improvement.

Summary of Financial Results by Segment

(JPY mn)	1H FY2021	1H FY2022	YoY Change
Net sales	13,498	17,562	130.1%
Enterprise	4,863	7,614	156.6%
Entertainment	8,635	10,020	116.0%
Adjustments	—	-72	—
Operating income	1,370	1,382	100.9%
Enterprise	232	114	49.2%
Entertainment	1,906	2,192	115.0%
Adjustments	-768	-924	—
EBITDA	1,632	1,920	117.7%
Enterprise	376	443	117.8%
Entertainment	2,009	2,379	118.4%

- High sales growth YoY 156.6% due to continuous **double-digit growth in existing businesses** and the **effects of M&As** conducted last year.
- Achieved **EBITDA increase by YoY 117.8%**, while **development business basement and aggressive investment in growth** led by AGEST, Inc., a core subsidiary of the Enterprise Business.
- Profitability is expected to improve in the second half due to sales growth from seasonal factors and the effects of strategic investments.

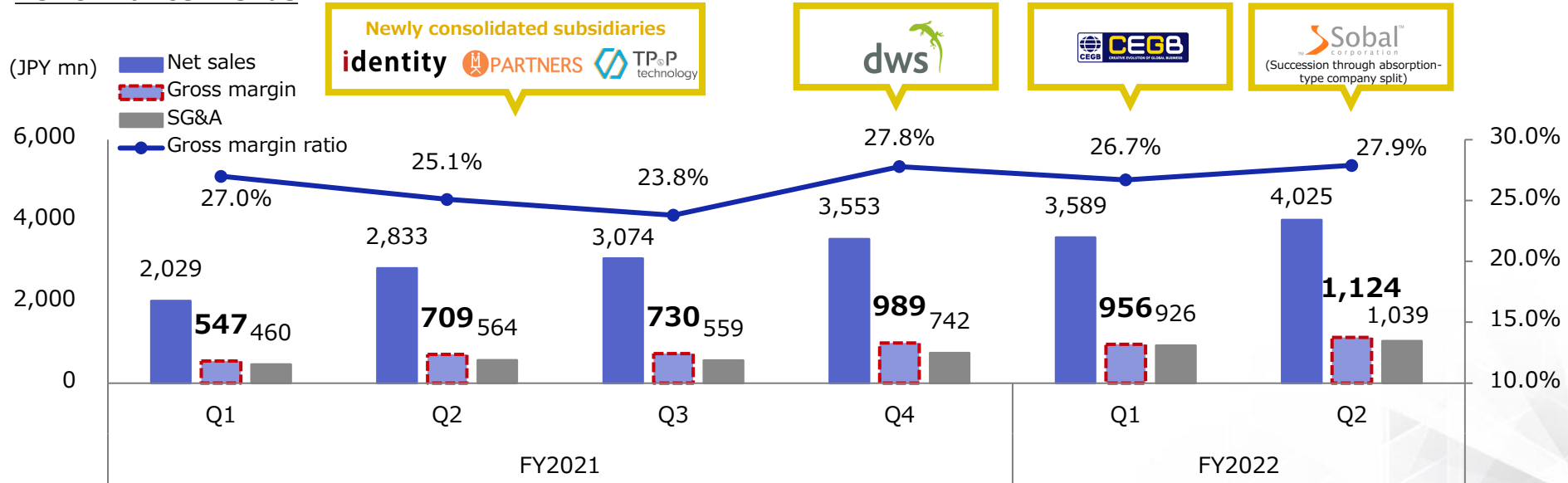
(JPY mn)	1H FY2021	1H FY2022	YoY Change
Net sales	4,863	7,614	156.6%
QA solution	2,967	4,583	154.5%
IT services and others	1,895	3,030	159.9%
Segment income	232	114	49.2%
EBITDA	376	443	117.8%

Key KPIs of Enterprise Business

Enterprise Business

- Net sales and gross profit remained steady, partly due to the contribution of M&As.
- SG&A expenses increased from Q4 FY2021 due to an increase in the number of consolidated subsidiary and acceleration of investment for the development of business basement and the future growth.

Performance Trends



QA solution division

Number of clients with orders (*)

Annual sales per client (*)

Number of engineers

Sales ratio of Advanced testing and Next-generation QA

FY2022 Q2

650 companies

FY2022 Q2

¥12 mn

FY2022 Q2

1,026 people

FY2022 Q2

34.3%

FY2022 Q4 Target

830 companies

FY2022 Q4 Target

¥12 mn

FY2022 Q4 Target

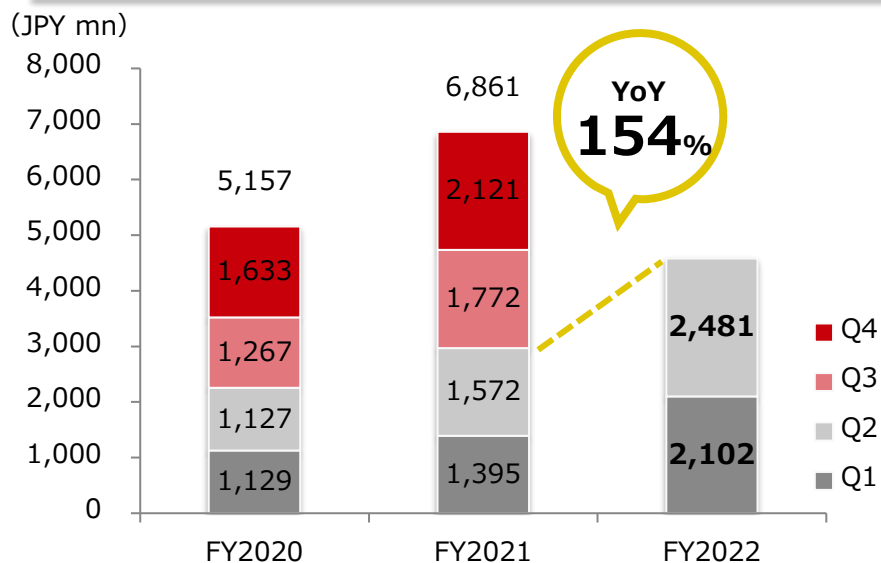
1,100 people

FY2022 Q4 Target

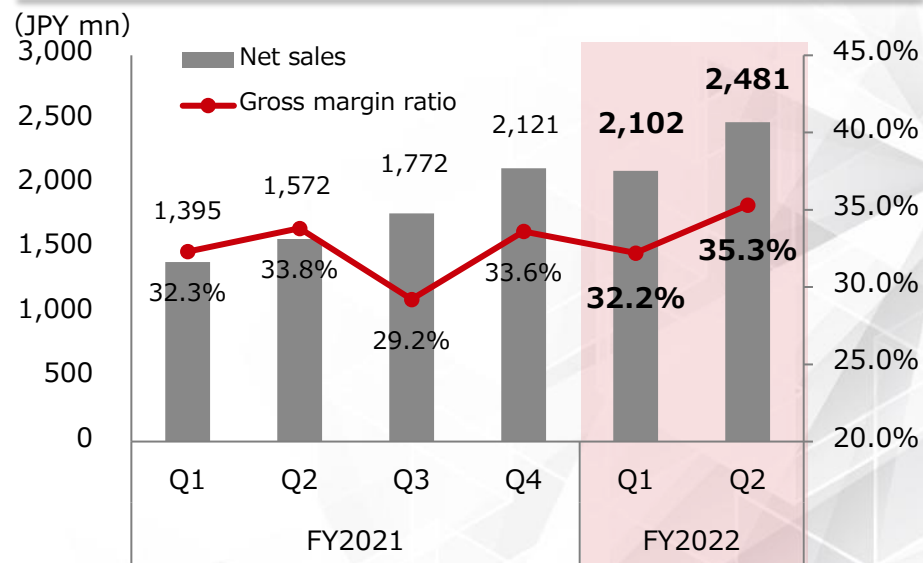
45.0%

- **Expand transaction volume per client** by strengthening cross-selling of security testing and test automation, based on manual testing services.
- **Promote the enhancement of test engineers** through the succession of QA businesses of Sobal Corporation and the expansion of services, such as **mutation testing**, utilizing specialized knowledge.
- **CEGB Co., Ltd.**, acquired through M&A, contributed from Q1 FY2022. Sales grew **YoY 129.1%** even after excluding the consolidation benefits of CEGB Co., Ltd.
- **Gross margin ratio improved in Q2** against Q1 due to the improvement of the engineer utilization rate and others.

Quarterly sales

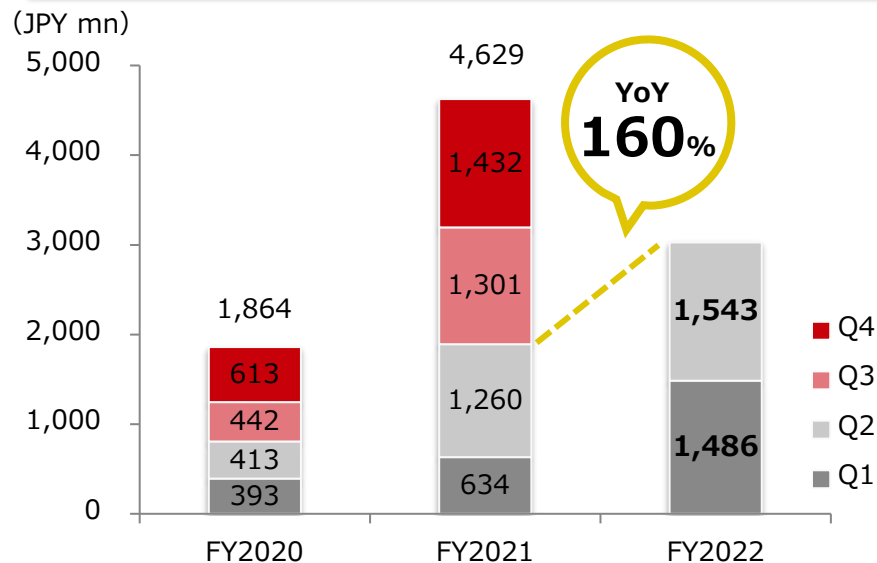


Net sales and Gross margin ratio

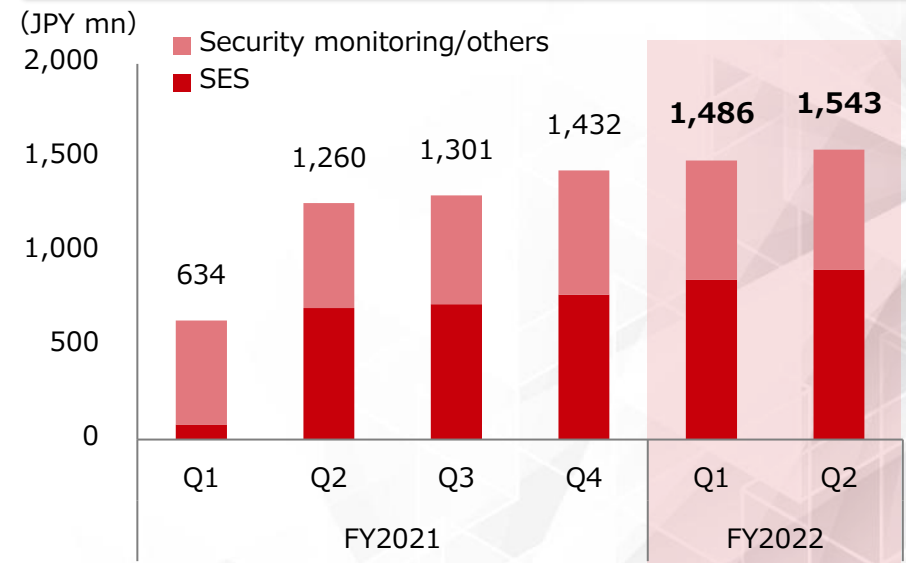


- The SES businesses grew steadily, as the number of engineers registered at **identity Inc.** reached to 23,000 people.
- Steady expansion of security monitoring services by steadily capturing increasing demand against the backdrop of expansion of remote work, etc.

Quarterly sales



Quarterly sales by service

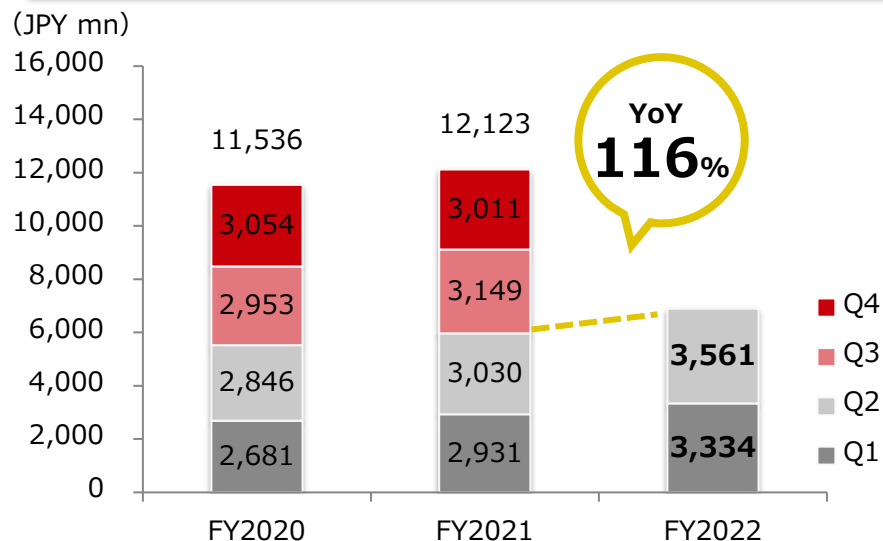


- **Achieve double-digit growth** in both the Domestic debugging and the Global and others, by steadily capturing growing demand against the backdrop of the booming console game market and accelerated overseas expansion of game content.
- **Generate record-high segment income** for 1H, with maintaining a **high profit margin of 21.9%**, due to the sales expansion and gross margin improvement in Domestic debugging division.

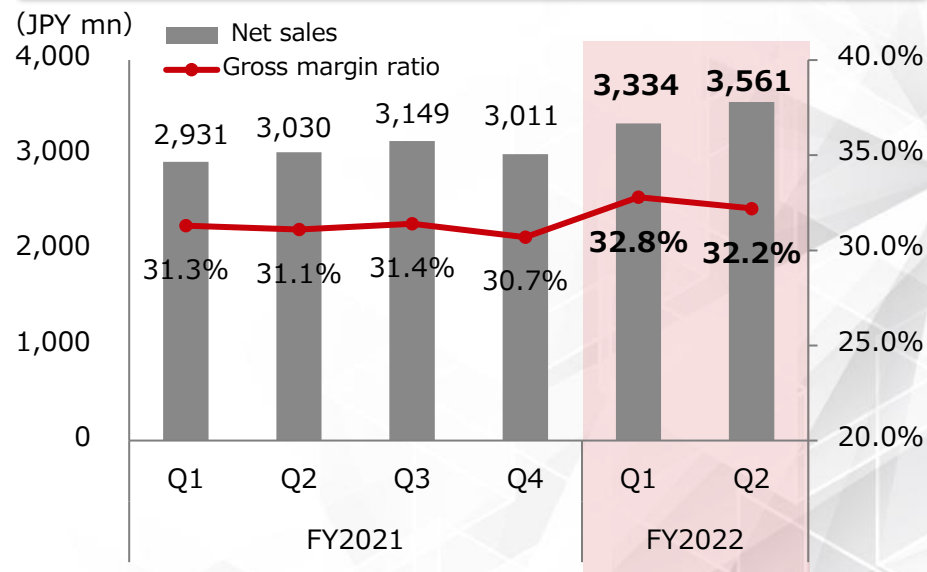
(JPY mn)	1H FY2021	1H FY2022	YoY Change
Net sales	8,635	10,020	116.0%
Domestic debugging	5,961	6,896	115.7%
Global and others	2,674	3,124	116.8%
Segment income	1,906	2,192	115.0%
EBITDA	2,009	2,379	118.4%

- **High sales growth in the Domestic debugging** driven by around YoY 1.5 times expansion of service for game consoles with increase in developments of new game titles.
- Remain **gross margin ratio at a high level of over 32%**, reflecting the efforts to improve operational efficiency and the impact of higher sales.
- Aiming to **further increase market shares** as a leading gaming Debugging company and **improve unit prices in response to rising personnel costs**.

Quarterly sales

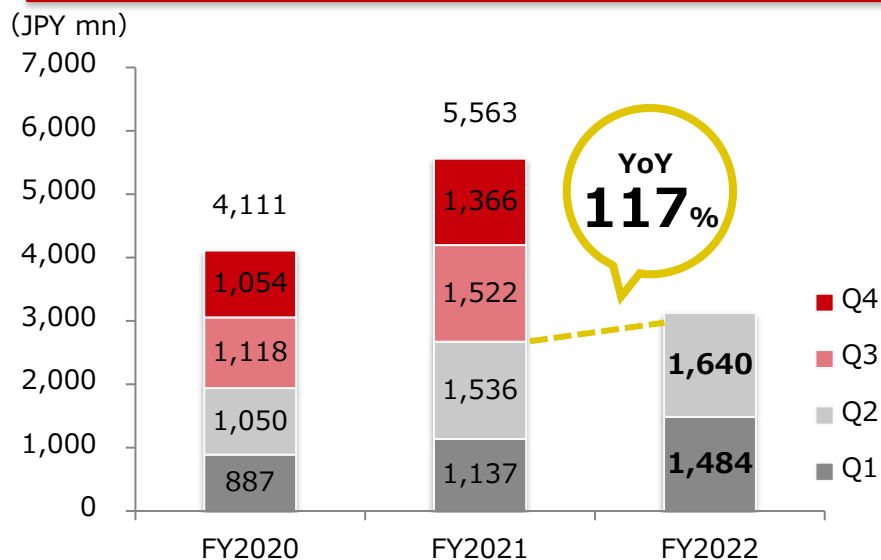


Net sales and Gross margin ratio

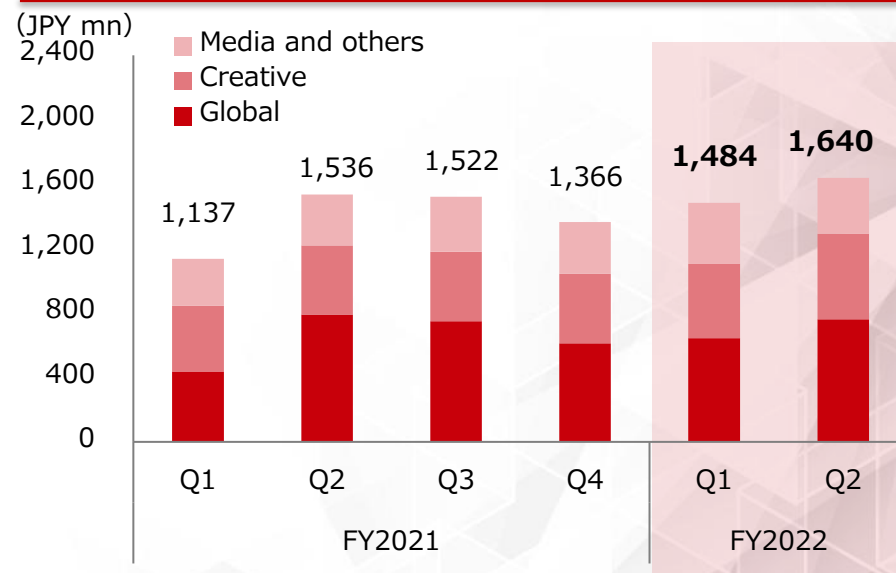


- **Double-digit sales growth in each service** of Global, Creative, and Media by securing cross-border and global projects against a backdrop of favorable market conditions.
- Aim for **expanding our business in the Asian area** and for **creating new service value**, by the synergies with the **DIGITAL HEARTS CROSS** Group acquired last year and the initiatives with alliance partners such as **GameWith, Inc.**

Quarterly sales



Quarterly sales by service



FY2022 Consolidated Financial Forecast

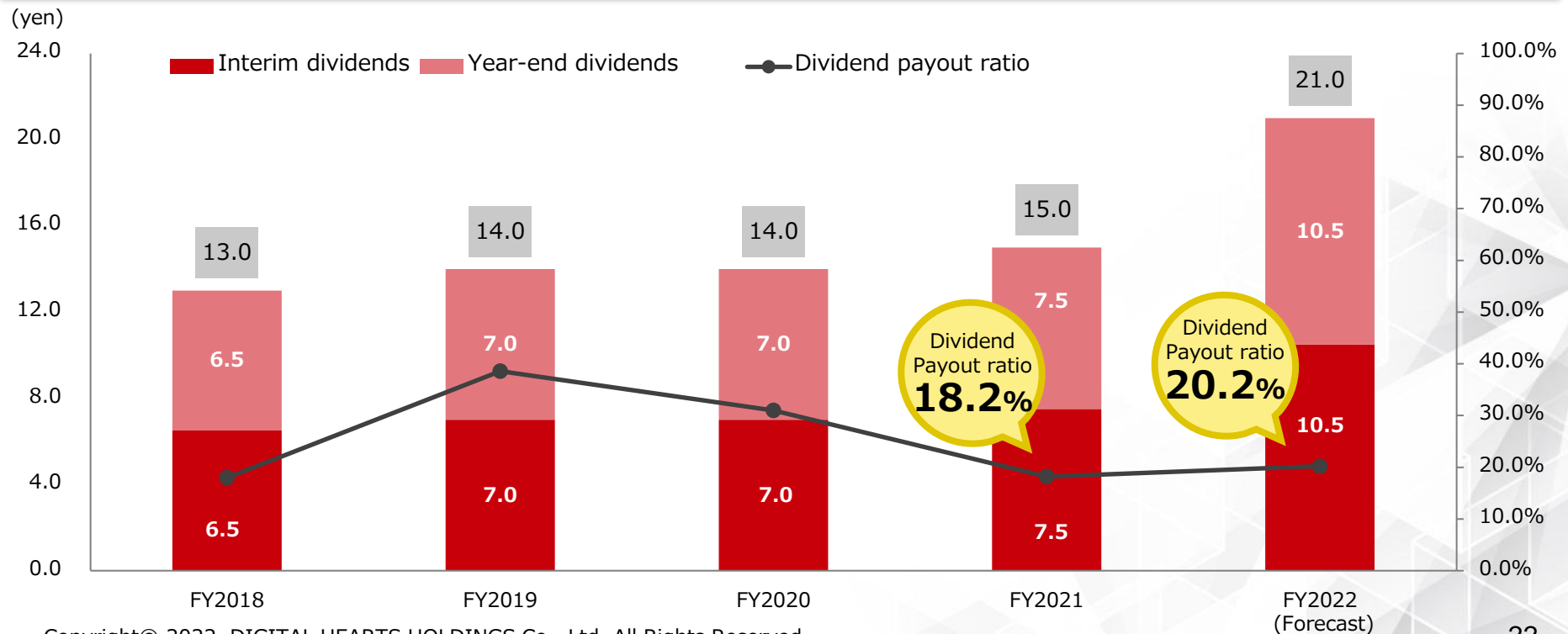
- Aim for **record-high net sales and operating income** while accelerating investment for future growth.
- **The Enterprise Business will keep driving the growth of the group.**

(JPY mn)	Full-year FY2021 (Actual)	Full-year FY2022 (Forecast)	YoY Change
Net sales	29,178	35,500	121.7%
Enterprise	11,491	15,375	133.8%
Entertainment	17,687	20,125	113.8%
Operating income	2,701	3,290	121.8%
Operating income margin	9.3%	9.3%	+0.0points
Ordinary income	2,778	3,290	118.4%
Profit attributable to owners of parent	1,780	2,250	126.4%
EBITDA	3,430	4,240	123.6%

The interim dividends are 10.5 yen, an increase of 3.0 yen from FY2021.
 The annual dividends are expected to be 21.0 yen, an **increase of 6.0 yen from FY2021, as a record high increase.**

Basic Policy to Return Profits to Shareholders

While securing sufficient internal reserves to invest in business growth and strengthen our management structure, stable dividends to shareholders with a payout ratio of 20% as the minimum target



Growth Strategy

With stable growth of high profitable Entertainment Business, rapidly expand the Enterprise Business while utilizing M&A as well.

M&A growth

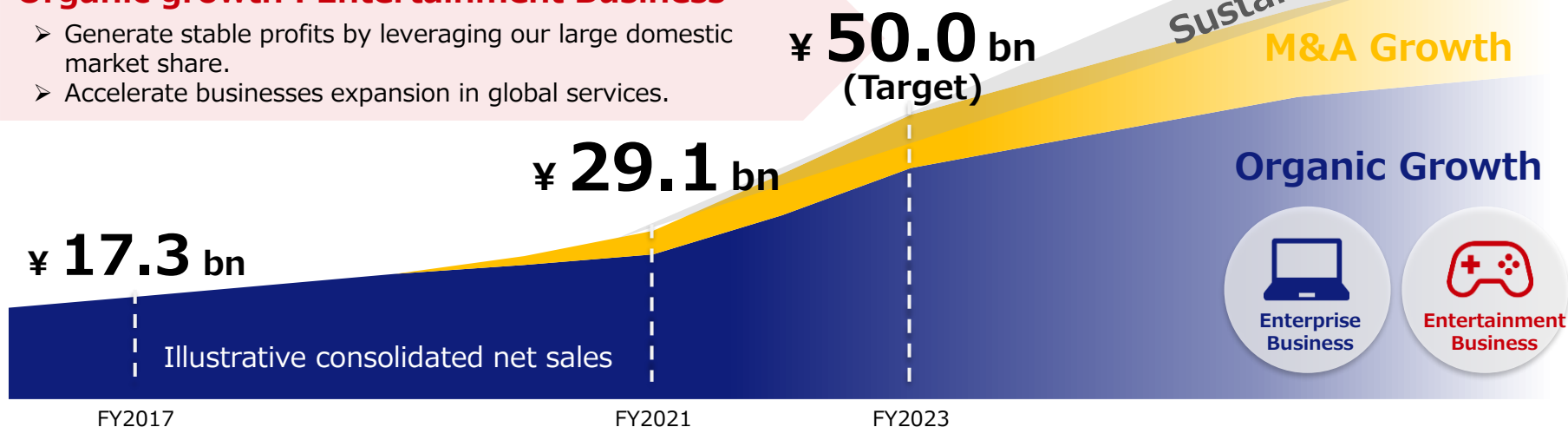
- Continue M&A aimed at expanding the pool of engineers and improving technological capabilities, such as test automation tools.

Organic growth : Enterprise Business

- Pursue advanced quality technologies and improve QA (*) expertise.
- Provide testing service in accordance with global standards.

Organic growth : Entertainment Business

- Generate stable profits by leveraging our large domestic market share.
- Accelerate businesses expansion in global services.



• The illustrative consolidated net sales above is not a forecast of us and we do not promise it as described above.
• QA...Quality Assurance
Copyright© 2022 DIGITAL HEARTS HOLDINGS Co., Ltd. All Rights Reserved.

With the acceleration of Digital Transformation and technological evolution, demand for software testing is growing rapidly and requiring higher expertise.

Changes in utilization of technology



- Core business IT system
- Web system
- Built-in software system

Development Methods
Waterfall model



- Software application
- IoT equipment
- X-Tech-related IT system

Development Methods
Agile model



- CASE
- Smart City
- Metaverse
- AI

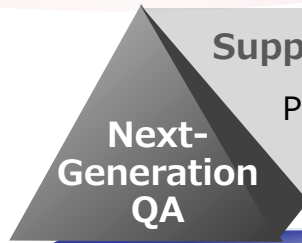
Evolving requirements for testing

- Comprehensive testing including non-functional aspects such as cybersecurity
- Verifying that the system operates as planned in the final process of development

- Providing suitable testing services to ever-evolving technology
- Test consulting in the early stage of the development life cycle (shift-left testing)
- Improving the efficiency of test processes by test automation or use of impact analysis tools

By utilizing leading-edge quality technologies and developing next-generation QA human capital, to become a service provider of optimum QA solutions at a high level to diversifying needs.

SAVE the DIGITAL WORLD



Support the innovation of clients' business with a rich user experience

Provide quality assurance service in areas such as CASE and Smart City, with testing methods not developed yet in the market.



Advanced Testing

Support optimization of the testing process by utilizing technology

Contribute to improving the quality of software including non-functional aspects such as security or the efficiency of testing processes using automation tools.



Test Outsourcing

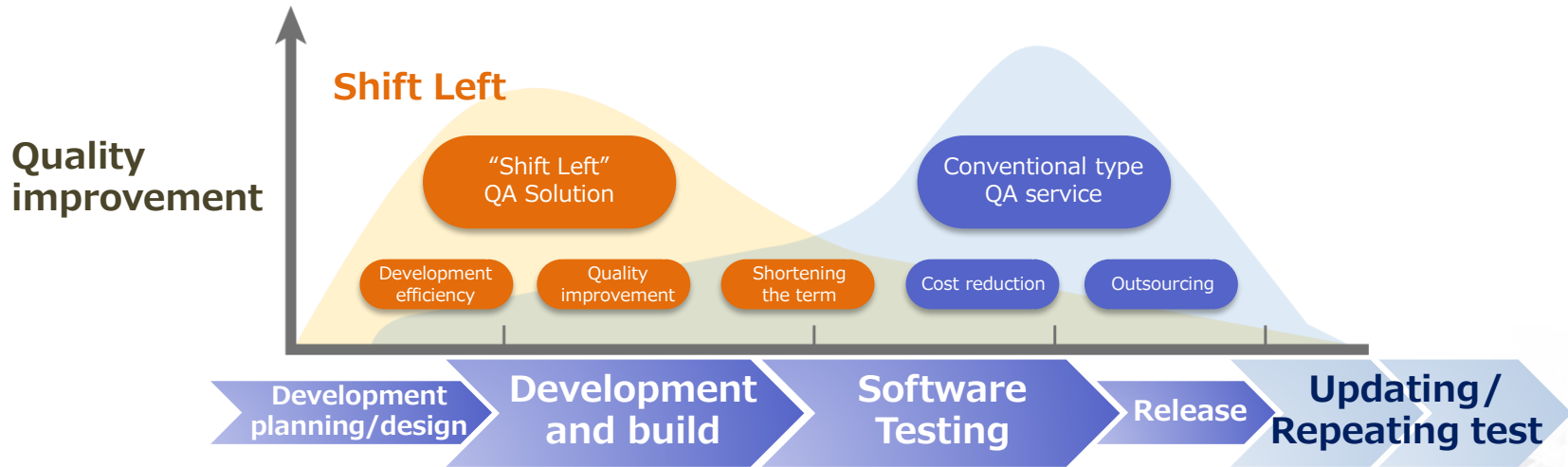
Assist the testing process from a third-party perspective

Offer outsourcing services to support clients with insufficient experiences and resources for software testing.



Value and Service Model of the Enterprise Business

With getting more complex, sophisticated, and diverse needs for software testing and bigger trend of in-house software development by end-user companies, AGEST started "Shift Left" QA solution.



AGEST Providing Total QA Solutions from Development to Post-Release Response

"Shift Left" QA Solution

- View of software development engineers
- Overall optimization to consider the impact to development process including post-release
- Coding optimization by source code analysis
- Comprehensive knowledge ranging from development to testing

Conventional type QA services

- View of end users
- Partial optimization of the testing process before launching or during updates
- Check operation according to specifications
- Much enough test engineer resource

Provide a total solution of high-value-added "Shift Left" QA solution and high-efficient conventional QA services.

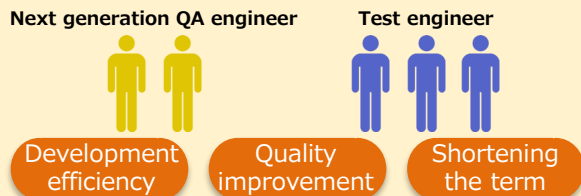
AGEST - Providing Total QA Solutions from Development to Post-Release Response



"Shift Left" QA Solution

High added value + high efficiency

- Next-generation QA engineers and test engineers participate directly in projects
- Quality improvement of products from development engineer's perspective



Low cost + high quality

- Improving the efficiency of the manual testing process by reflecting total optimization from the development process
- Test automation tools to match each client's product or service
- Implementation of cyber security measures with considering post-release
- Flexibility of testing execution leveraging abundant game debugging testers

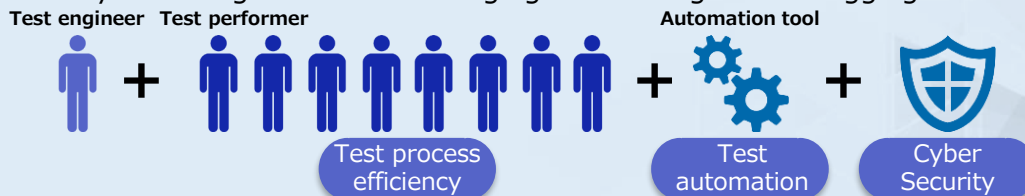
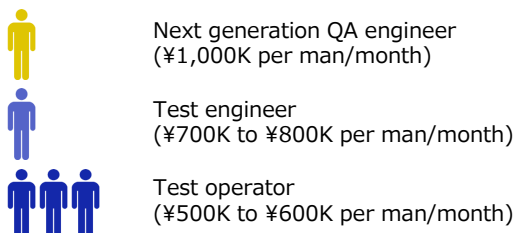


Image of the engineer



Conventional type QA service

Low cost

- Efficiently and flexibly provide a large number of test operators



Cost reduction, Outsourcing of work

■ Case: A major entertainment content company



AGEST

Client needs

- New software development project, requiring unprecedented levels of development speed and software testing quality.
- Improvement of the product quality through software testing, in addition to cost reduction by outsourcing.
- Establishment of an internal testing model by an in-house development team, not relying on System Integrator companies.
- Establishment of a post-release testing operation system efficiently responding to continuous updates

"Shift Left" QA Solution

- A next-generation QA engineer with expertise in both developing and testing supports to set goals for service quality and to review the development process from testing view.
- Support testing design, unit testing, and component testing from a software developer's view, in addition to acceptance testing and operational testing.
- Conduct a Mutation Testing in addition to ordinary unit testing to improve the accuracy of verification.
- Support for establishment of in-house quality assurance operation including post-release testing.

Conventional type QA services

- Achieve cost reductions in software testing such as acceptance testing through appropriate testing for upstream development.
- Standardize and reduce waste processes such as redoing of development after testing as a result of involvement in client's development team.
- Optimize the test automation process by joining from the upstream of development process.
- Implement usability testing and cyber security testing.

Point



The first service case of Mutation testing among domestic major QA companies(*)

Mutation testing is a method of randomly adding error codes to a program in order to check unit testing processes appropriately done or not.

*Our research

Building Basement of the Enterprise Business

Building a Business Basement for Medium- to Long-term Growth

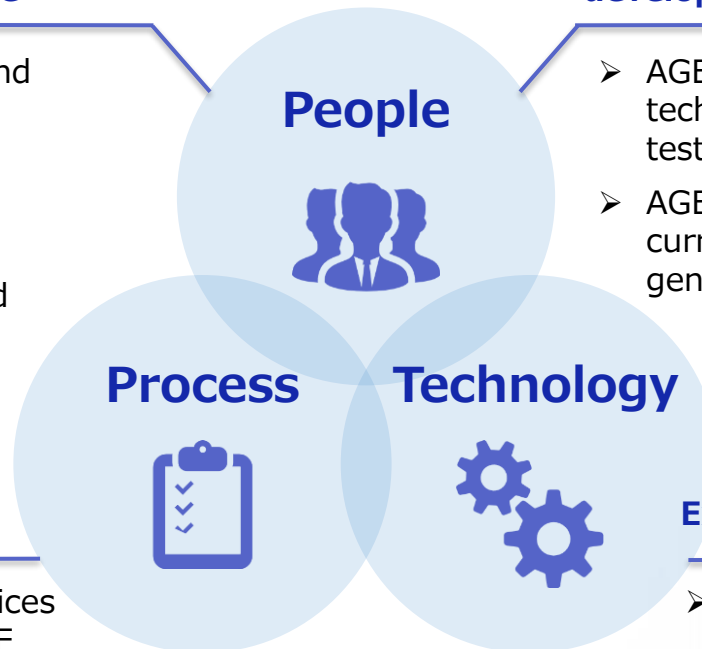
In 1H, completed the development of PP&T (People, Processes, and Technologies) as the Enterprise Business basement for sustainable future growth.

Reinforce engineer human resources to improve the quality of software

- Next-generation QA engineers and test engineers with expertise in testing techniques
- Test operator teams with high efficiency and flexibility
- Unique model of recruitment and M&A to continuously reinforce human capital

Standardize in complying with international standards

- Standardized quality of test services by complying with "ISO/IEC/IEEE 29119"
- Developing standards as best practice by combining international standards with front-line knowledge



Pursuit advanced quality technologies and development of sustainable training model

- AGEST Testing Lab. to develop testing techniques in new areas such as AI testing.
- AGEST Academy as in-house training curriculum for producing next-generation QA engineers.

Expand technology-oriented services

- High quality of testing service by utilizing global, state-of-the-art test automation tools
- Improvement of efficiency by utilizing tools such as impact analysis and CI/CD

Establish PP&T as the Enterprise Business platform by bringing together experts from the frontline of the software testing industry.

People



Dr. Juichi Takahashi

A pioneer in software testing in Japan. Holds a PhD in software testing and has published many works. Director and CTSO of AGESE, Inc., our subsidiary



Mr. Rex Black

Worldwide authority on software testing with many published works. Former president of the ISTQB.

Process



Mr. Yohei Takagi

The first Japanese [ISO/IEC/IEEE 29119 Training Trainer]. Executive Officer of AGESE, Inc., our subsidiary.



Dr. Stuart Reid

The founder of the ISTQB. The convener of ISO Software Testing Working Group 26, which has published software testing standard, "ISO /IEC/IEEE 29119."

Technology



Dr. Yasuharu Nishi
Lecturer, the University of Electro-Communications

Researcher of AI products and President of NPO ASTER (Association of Software Test Engineering).



Dr. Hironori Washizaki
Professor, WASEDA University

Researcher in agile development.



Dr. Masahiko Kato
Professor, University of Nagasaki

Researcher in Security Testing.



Mr. Kazutaka Jokura

A former CTO in DMM.com LLC. Worked on expanding and training the company's engineers for seven years. Our Chief Technology Officer.



Mr. Hung Nguyen

Worldwide authority on software testing. The co-author of the bible for test engineers. Founder of our subsidiary LOGIGEAR CORPORATION.

Our unique human capital model of engineers, with testing engineer group including next-generation QA engineers, supporting the improvement of clients' software quality, and with test operating teams with high efficiency and flexibility.

■ Structure of Engineer Human Capital

Next-generation QA engineer

The highest-class QA engineer with knowledge of both software development and testing to contribute to client's service quality improvement for all from development to post-release.

QA Consulting

Optimization of test coding

Whitebox Testing

Support for in-house testing

Test engineer

Specialists of software testing from planning and designing in conventional QA services to test automation and security services.

Testing plan

Testing design

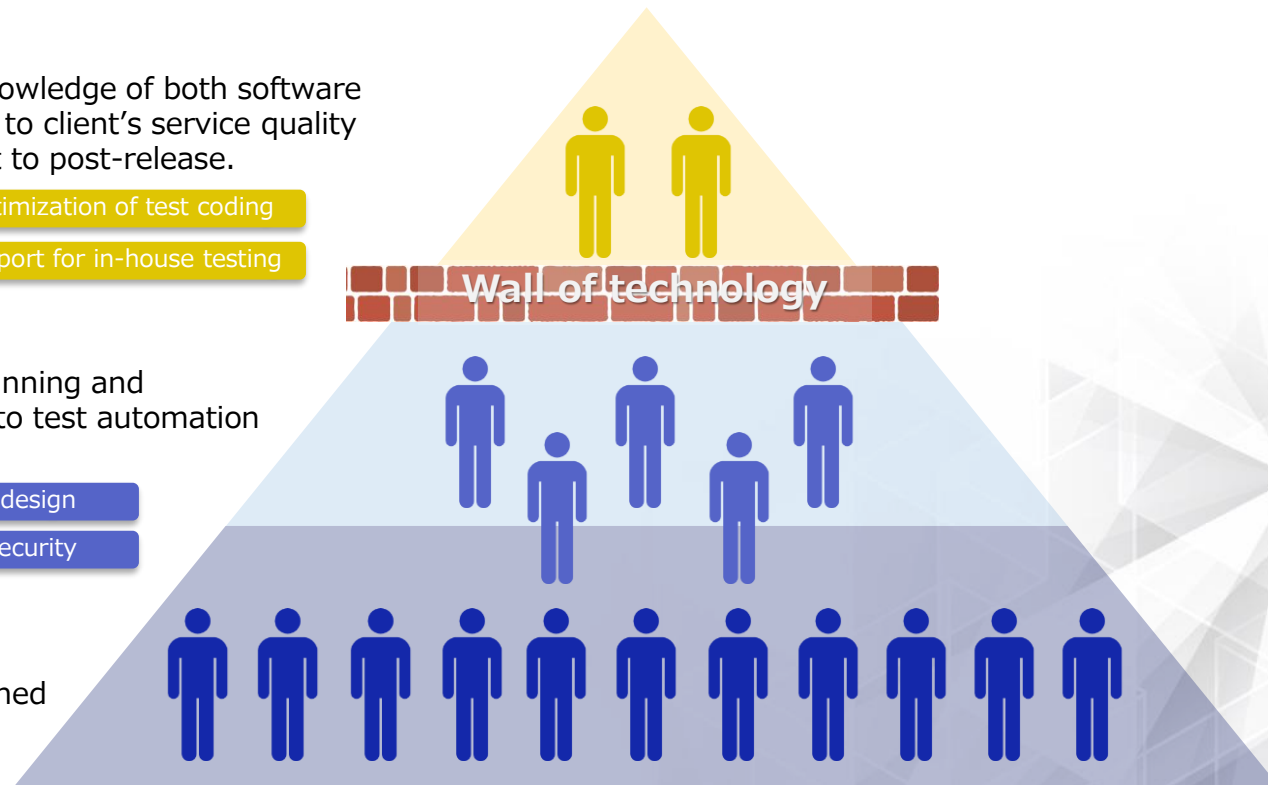
Test automation

Cyber Security

Test operator

Testers who efficiently and flexibly implement software testing with designed testing processes.

Testing operation

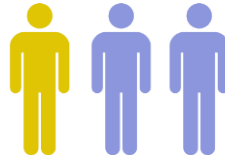


People: Enhancement of Engineer Human Capital

Enhancing human capital of engineers and test operators sustaining the Enterprise Business through recruitment, M&As, and internal training, aiming for sustainable growth.

1. Recruiting and headhunting

- Improve recognition through branding activities (PR, owned media, seminars, etc.)
- Enhance AGESt recruiting team
- Strengthen collaboration with agents



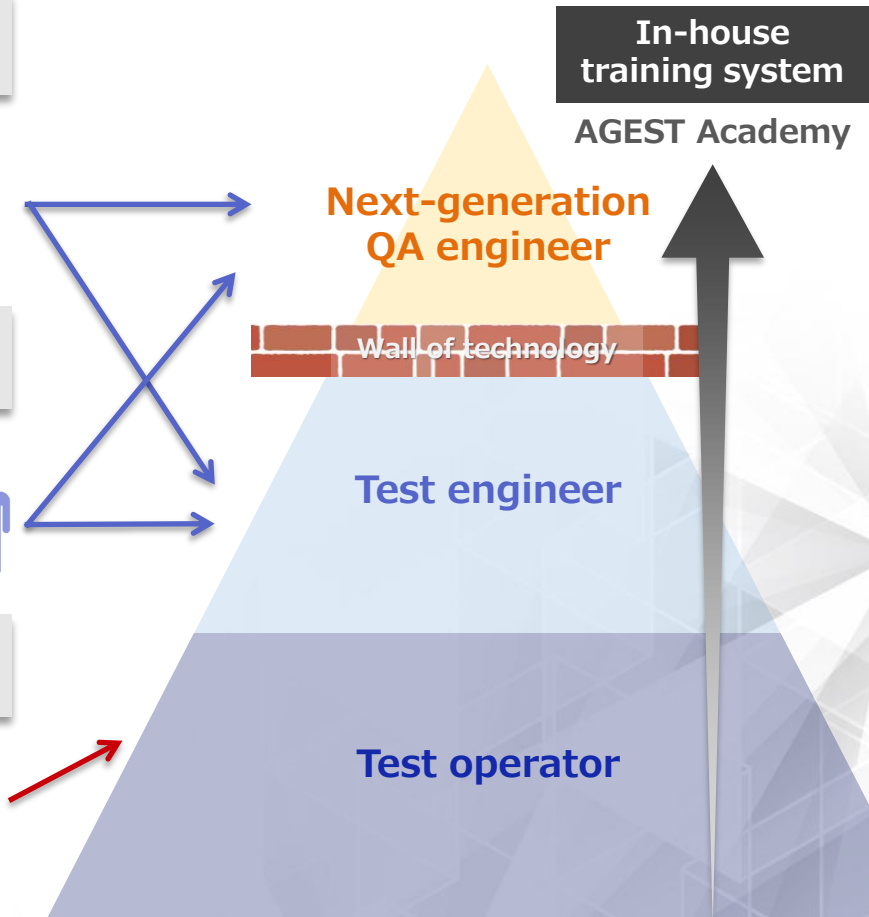
2. M&As including business successions

- Acquire software testing and/or development companies
- Acquire SES firms with engineers
- Succeed QA division from development company



3. Hiring inexperienced personnel and training

- AGESt Academy elementary level curriculum
- Recruit candidates with no engineer experience
- Shift in-house game testers from the Entertainment Business



People: Strengthen Recruitment and Retention through Spin-off of AGEST

The spin-off of AGEST in April 2022 clarifies the unique corporate culture of both businesses and progress improvement of market recognition, recruitment, and retention of human resources.

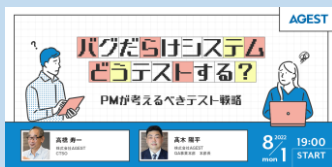
Enterprise Business

AGEST



Recognition

Actively participating of CTSO in seminars



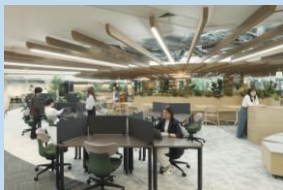
Recruitment

To open new specialized recruiting sites for engineers in November



Corporate culture

Idabashi tech center opened for engineers



Recognition

"Tech Blog" opened in AGEST website

Entertainment Business

DIGITAL HEARTS



Recruitment

Strengthen recruitment of game testers in collaboration with GameWith, Inc.



Corporate culture

Introduce a new personnel system specializing in game industry professionals

Increase employees' motivation



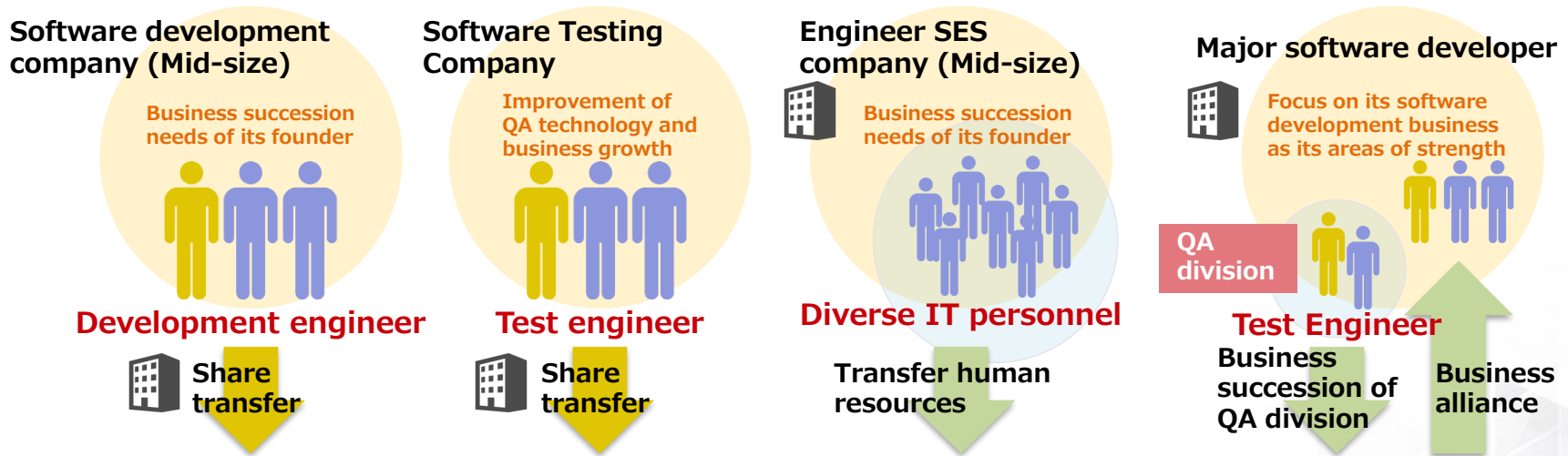
Recognition

Renewed website with a focus on "games"



By utilizing our solid cash flow and strong financial base, promote recruitment of engineers through aggressive M&A and business succession.

Case examples



AGEST

- Acquisition of highly experienced engineers
- Opportunity to change in assignment to our customers
- Education and workplace environments specializing in QA solutions

Our advantage

- Quick expansion of human capital
- Acquisition of highly skilled engineers
- Increase unit price of engineers

Engineering benefits

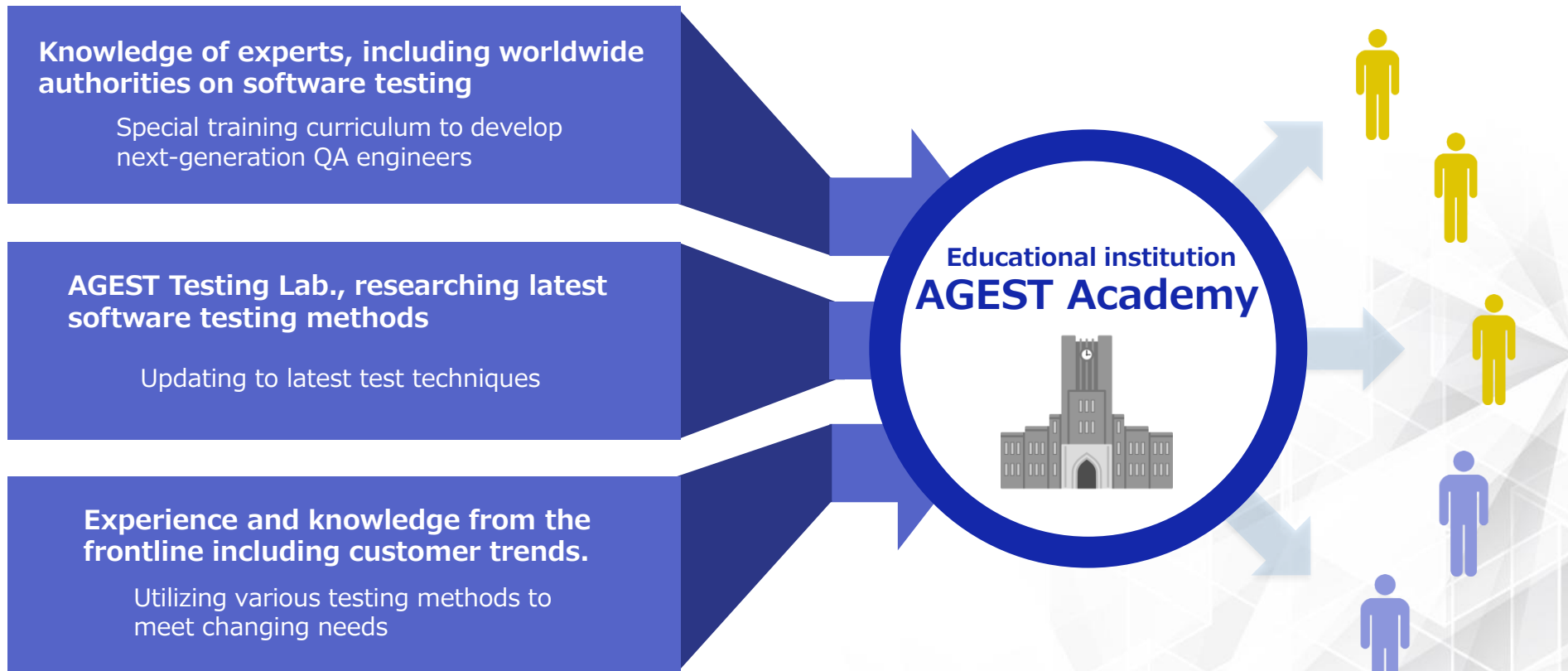
- Opportunity to acquire QA expertise
- Improvement of career paths and salary levels
- Increase in motivation

People: Build a Model to Train Next-generation QA Engineers

Established AGEST Academy in April 2022, an educational institution for systematically learning advanced technologies. Promoting the development of next-generation QA engineers by combining research at Testing Lab. with frontline on-site knowledge.

AGEST Academy with knowledge of global standards, research institutions, and frontline experiences.

Enhance human capital such as next-generation QA engineers



A curriculum to train next-generation QA engineers in addition to supports for the basic knowledge and ISTQB qualifications.

Curriculum	Contents		Qualification
	Testing methods	Software Development and others	
Next-generation QA	Leading-edge QA technology	Case, Smart City, AI, corporate management, accounting and industry knowledge	—
Agile testing	Knowledge of TDD/BDD/ADD	Agile knowledge Team management	Certified scrum master
Advanced QA technology	Software quality methods / Test Process Improvement	Project management (In accordance with PMBOK)	Project Management Professional
Test automation	Tools for test automation building Coding knowledge	General cloud knowledge (AWS/GCP/Azure knowledge)	—
Testing methods	Quality-related development technology	Programming/System Design/Infrastructure/DB/Security	System Architect (IPA)
Basic Lv.3	Test management (in accordance with PMBOK)	Introduction to Programming	ISTQB TM /IVEC Lv.5
Basic Lv.2	Software quality methods basic/ Application of Testing Technologies	—	ISTQB TA/ IVEC Lv.3-4
Basic Lv.1	Software quality methods basic/ Basis of testing techniques	—	ISTQB FL/IVEC Lv.1-2

Topic

Commenced sales of AGEST Academy elementary education programs to clients

Provided to a major telecommunication company and a electronic component trading firm as part of new graduate training and basic training programs for mid-career recruitment

People: Reinforcement of Engineer Human Capital

Increase in the number of next-generation QA engineers and test engineers to drive the growth, by strengthening branding and marketing, recruiting initiatives, M&As, and in-house training, mainly at AGEST, Inc.

■ Increase in Engineer Human Capital

Number of next-generation QA engineers

As of March 31, 2022

8



As of September 30, 2022

14

(Candidates for next-generation QA engineers)

As of March 31, 2022

28

As of September 30, 2022

49

Number of test engineers

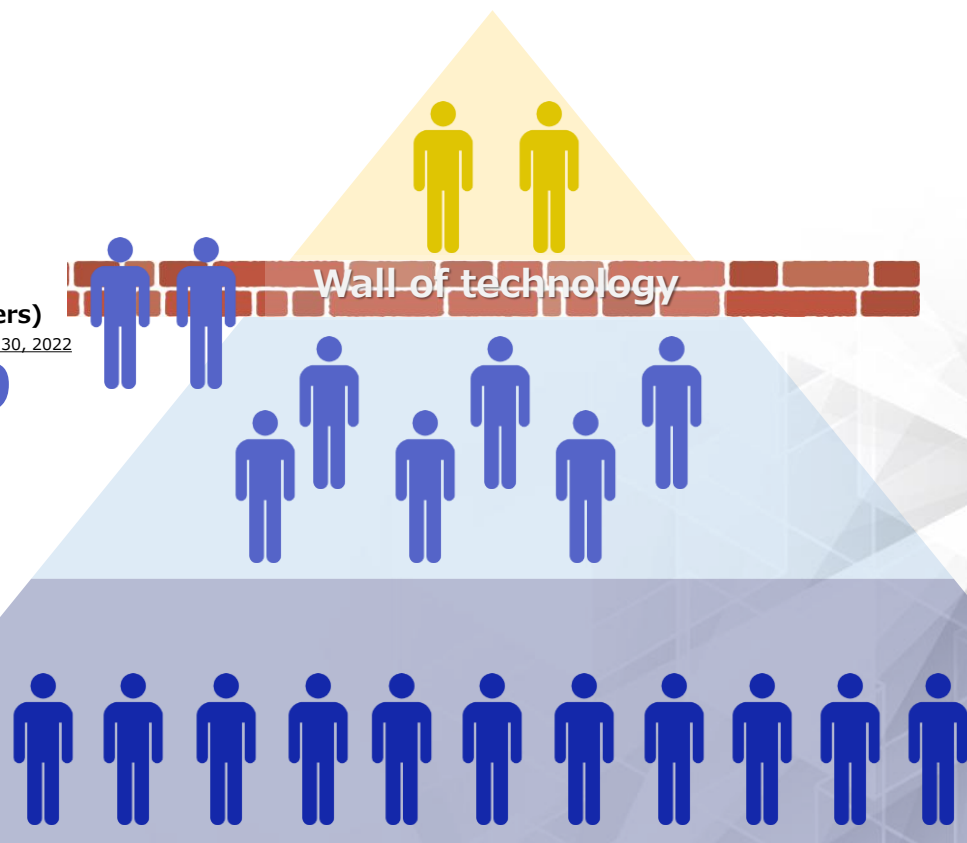
As of March 31, 2022

153



As of September 30, 2022

308



Standardize the quality of QA services in accordance with the international standard for software testing [ISO/IEC/IEEE 29119].

QA service quality in compliance with the global standard

From Good Practice to Best Practice with our unique know-how

ISO/IEC/IEEE 29119

The world's first testing standard, designed to be used in any form of software testing by any organization, as a global standard.

AGEST ×



Experience and knowledge from over 3,000 testing projects per year

Good practices that condenses the knowledge of global experts

Key Person



Yohei Takagi (Executive Officer, Head of QA Division of AGEST, Inc.)

As the first Japanese [ISO/IEC/IEEE 29119 Training Trainer], he led the introduction and training of our group ISO/IEC/IEEE 29119. ISO 29119 Certified Tester, and the first fully qualified senior test technician (test manager, test analyst, technical test analyst) at JSTQB.

Technology: Expansion of Technology-Oriented Services

Expand technology-oriented services to support the efficient and precise testing through the development of unique tools and the collaboration with alliance partners.

Test automation tools

Our group original



For a variety of software

Our group original



For Oracle
(only for load testing)

Our group original



For Oracle



For a variety of software



For a variety of software



For SAP



For the Web



For mobile apps

Other tools

Our group original



Impact analysis tool for Oracle

Our group original



For Salesforce
Document creation tool



Impact analysis tool for SAP

Accelerate the business growth by M&As aimed at acquiring engineers and technical capabilities.



Obtain engineer human resources

Strengthen technical capabilities and know-how

Acquired approximately **400** test engineers



Acquired know-how and original tools of **test automation**



Acquired around **20** test engineers



Acquired **Oracle** test know-how and proprietary test automation tools



Acquired approximately **130** test engineers



Acquired **SAP** know-how

(Succession through Absorption-type Company Split)



Acquired a pool of engineers, more than **7,000** freelances



Acquired **Salesforce** know-how

Resolution of the equity finance (Stock acquisition rights)

Transaction size (plan) Approx. ¥4.2 billion

(Approximate amount after payment of expenses)*

***Procurement amount as of October 31, 2022: approx. ¥0.8 billion**

Exercise period: July 20, 2022 to July 19, 2024

Purposes

- I. Waiting funds for future M&A
- II. Repayment of existing M&A bank loans
- III. Expenses for R&D initiatives and recruitment and training of engineers

*Transaction size amounts (plan) may increase or decrease if the exercise price is revised or if the acquisition rights are not exercised during the period.

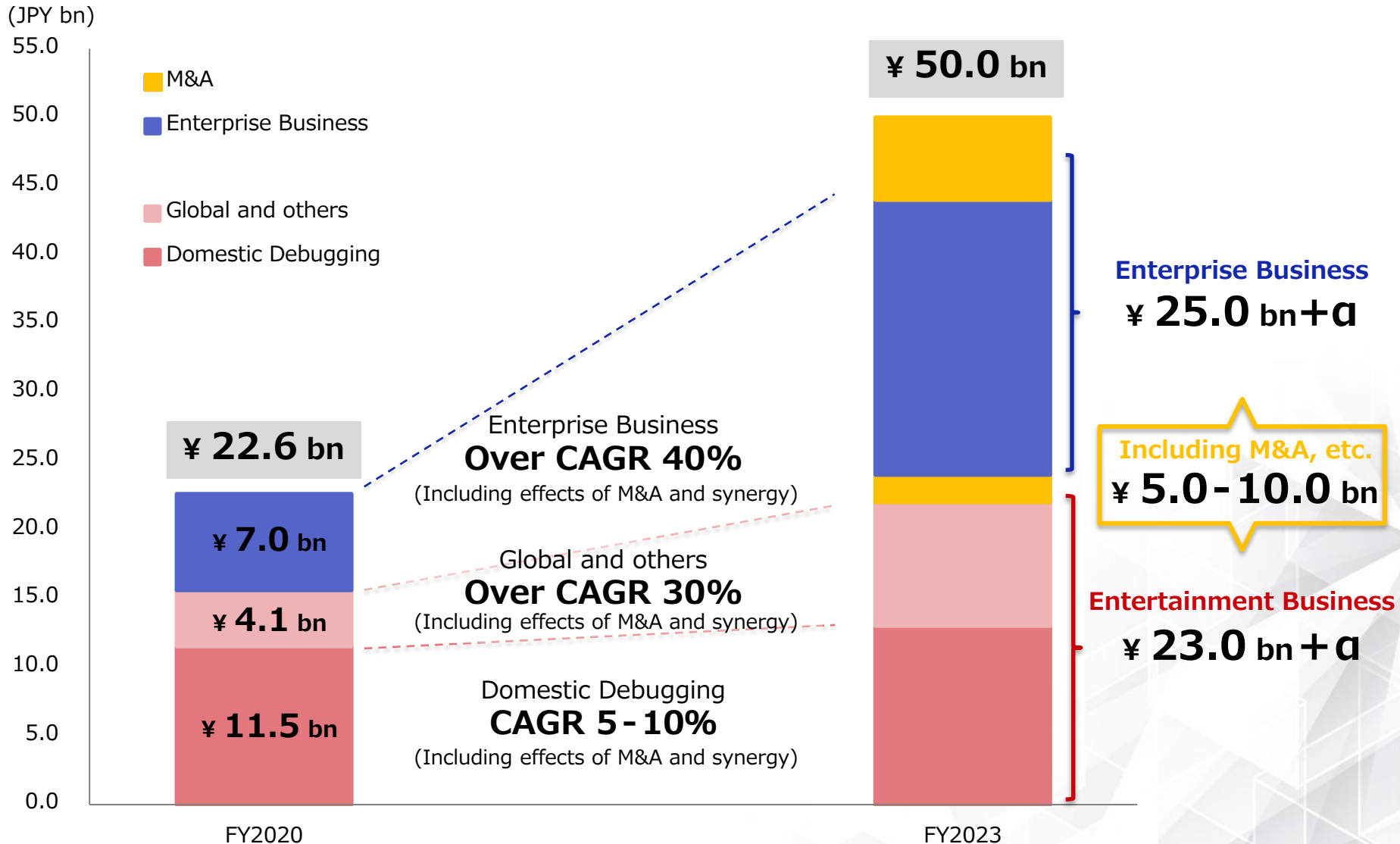
Strategic growth through M&As following strict guidelines

M&A Strategy

1. **Strict ROIC standards** to maintain higher investment efficiency and profitability
*ROIC=EBITDA×(1-effective tax rate)÷(interest-bearing debt+shareholders' equity)
2. Targeting companies with **future growth potential** and **current stable profitability**
3. Well-balanced PMI initiatives between its organic growth and synergies with our group

Target companies	<p>To obtain engineer human resources</p> <ul style="list-style-type: none"> - Software testing companies - Companies with engineers especially for development of open systems - SES providers with rich human resources as own employee <p>To strengthen technical capabilities</p> <ul style="list-style-type: none"> - ERP-related service providers in Japan
Size of target companies	<p>Net sales: ¥0.5 - 3.0 bn Number of engineers: 30 – 150 engineers Acquisition price: Max. ¥3.0 bn</p>
Number of projects	<p>Around 2-3 projects per year as a plan</p>
Governance	<ul style="list-style-type: none"> - Internal Investment Committee from various views including business operations, legal, finance, HR, and others. - Board of Directors including counsel from outside directors who have knowledge and experience in M&As or finance.

Sales Targets



Medium-Term Targets (FY2021-FY2023)

FY2023 Target

Group Business	<FY2020 Result>	<FY2021 Result>		<FY2023 Target>
Consolidated Sales	¥22.6 bn	¥29.1 bn	»	¥50.0 bn
ROIC (*1)	16.8%	22.0%	»	over 15%
M&A and Alliances	3 projects	3 projects	»	5 projects (in 3years)
Number of Clients in Japan as a Group	878 companies	1,005 companies	»	2,000 companies

SDGs

Number of IT Human Resources incl. Qualitist (*2)	4,517 people	10,660 people	»	20,000 people
Female Managers Ratio (ratio to total managers) (*3)	10.7%	11.8%	»	over 20%

*1 ROIC=EBITDA×(1-effective tax rate)÷(interest-bearing debt+shareholders' equity)

*2 Qualitist...Our original term for specialists contributing to quality incl. engineers

Appendix

One of the few
testing companies in Japan



Ratio of
outside directors
50.0%



Employment creation
for more than
8,000 testers



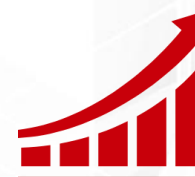
Business that supports
Digital security



Foreign staff
members of more
than
30 nationalities



High sales growth of
CAGR 14% (*)



Our Mission

SAVE the DIGITAL WORLD

Market environment

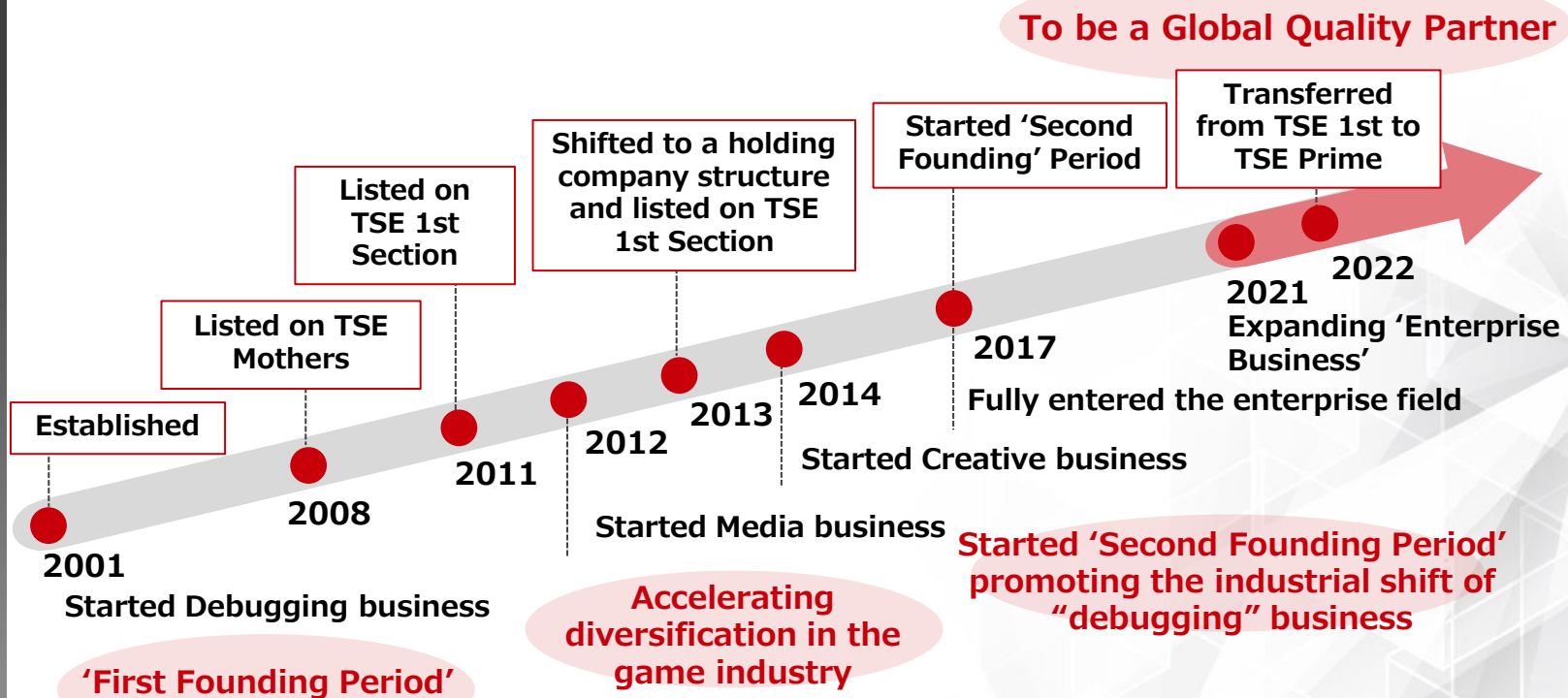
Growth of console game market

Growth of mobile game market

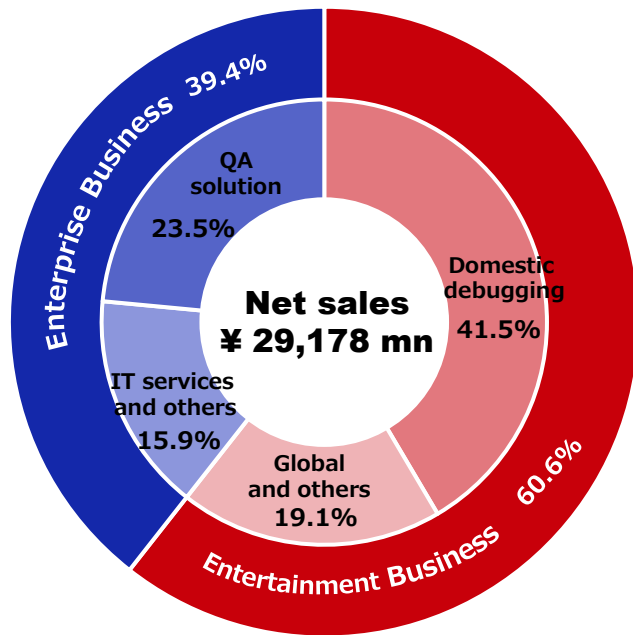
Expansion of IoT

Expansion of DX

History



Our core business: QA(Quality Assurance) and Debugging

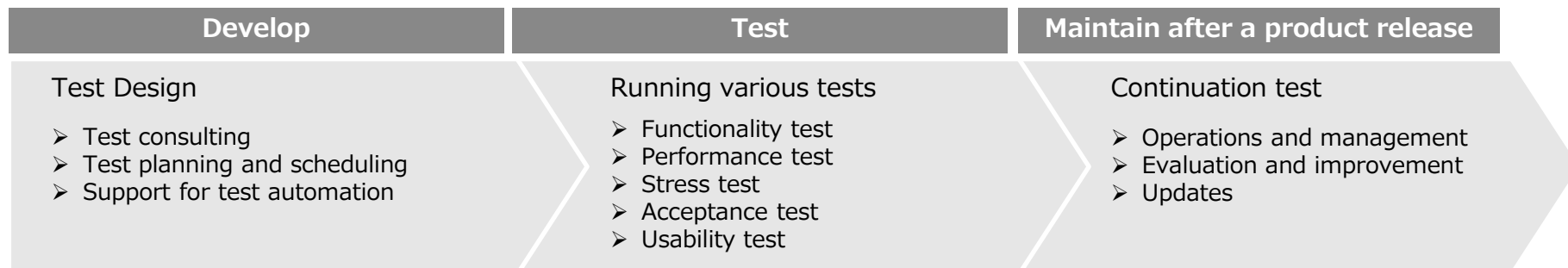


Sales breakdown by segment (FY2021)

*Segments include inter-company sales and/or transfers.

Enterprise Business	QA solution	23.5%	<ul style="list-style-type: none"> ➤ Testing for business systems incl. online ➤ Support for test automation ➤ Security test ➤ Introduction of ERP and CRM ➤ System development
	IT services and others	15.9%	<ul style="list-style-type: none"> ➤ Security monitoring ➤ IT support ➤ IT engineer platform service
Entertainment Business	Domestic debugging	41.5%	<ul style="list-style-type: none"> ➤ Debugging for console games, mobile games, etc.
	Global and others	19.1%	<ul style="list-style-type: none"> ➤ Translation, LQA*, and localization for game software ➤ Marketing support for game launching in overseas markets ➤ Game development and CG development ➤ Game information site "4Gamer.net" ➤ Customer support

Our Services



Outline of Services

Service	Description	Main client	Barriers to entry	Outsourced Projects Ratio
System Testing	Detection of bugs in enterprise systems from a test-engineers' knowledge.	<ul style="list-style-type: none"> – System integrators – Development vendors – Core system enterprises 	<p>Medium</p> <ul style="list-style-type: none"> ↑ Personnel shortage in IT Industry. ↑ Knowledge and expertise on software testing is required. 	Low
Debugging	Detection of bugs in games from a player's perspective.	<ul style="list-style-type: none"> – Game makers 	<p>High</p> <ul style="list-style-type: none"> ↑ A license for purchasing dedicated equipment for debugging is required. ↑ Knowledge and expertise on human resource management to accommodate changeable development schedules are required. 	High

ISTQB Global Partner (One of three companies in Japan)



Largest class
in Japan

Number of people
with ISTQB qualifications
365 people

(Consolidated base as of March 31,2022)

What is the ISTQB?

ISTQB is an international accreditation body for software testing.

There are four levels defined for the program: Silver, Gold, Platinum, and Global. To be eligible for the Global level, a group has to have at least one Platinum-level company and Gold-level companies in two or more countries.

Diverse automation tools

One of the largest variety of tools
in the domestic software testing industry



Supported by global authorities in software testing



Dr. Stuart Reid

The founder of the ISTQB. The convener of ISO Software Testing Working Group 26



Mr. Rex Black

Former President of the ISTQB



Mr. Hung Nguyen

The co-author of a bible for test engineers.



Dr. Juichi Takahashi

A pioneer in software testing in Japan who has published many works.

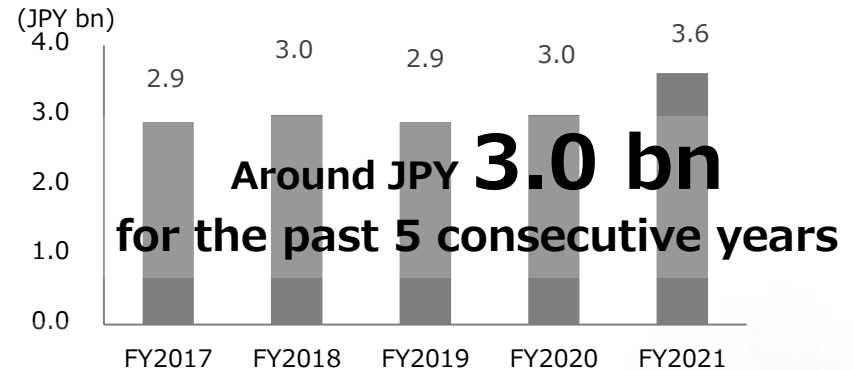
Market leader in domestic debugging service

Debugging service involvement ratio
among top 100 new console game titles *

Approx. **75%**

*Based on an internal investigation

Strong operating profits



Passionate talents who love game



Approx. **8,000**
registered testers

Abundant and wide variety of test terminals



Game consoles
2,054



Smartphones
6,782

(As of March 31, 2022)

Over 20 locations



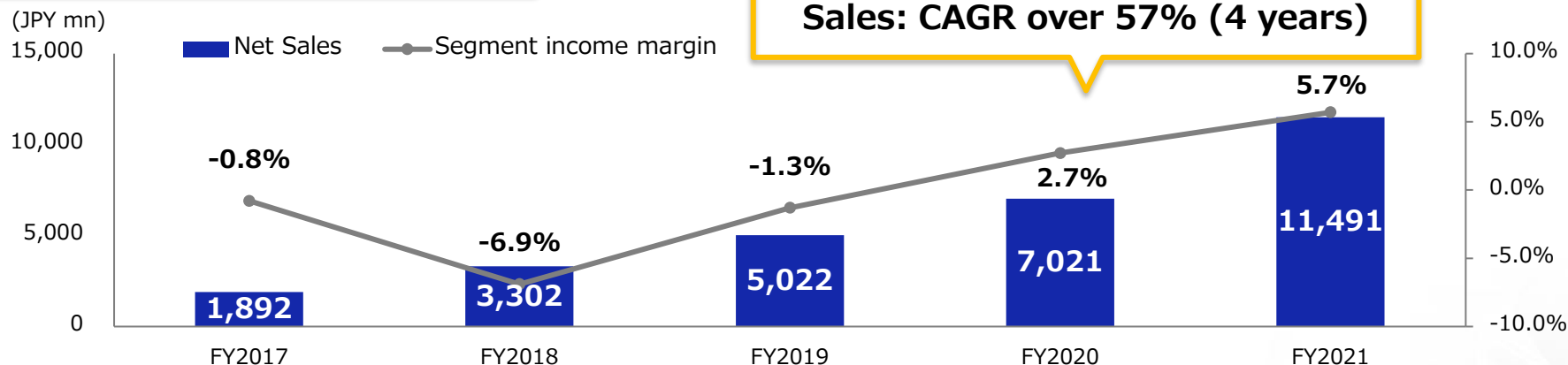
Japan
13

Global
8

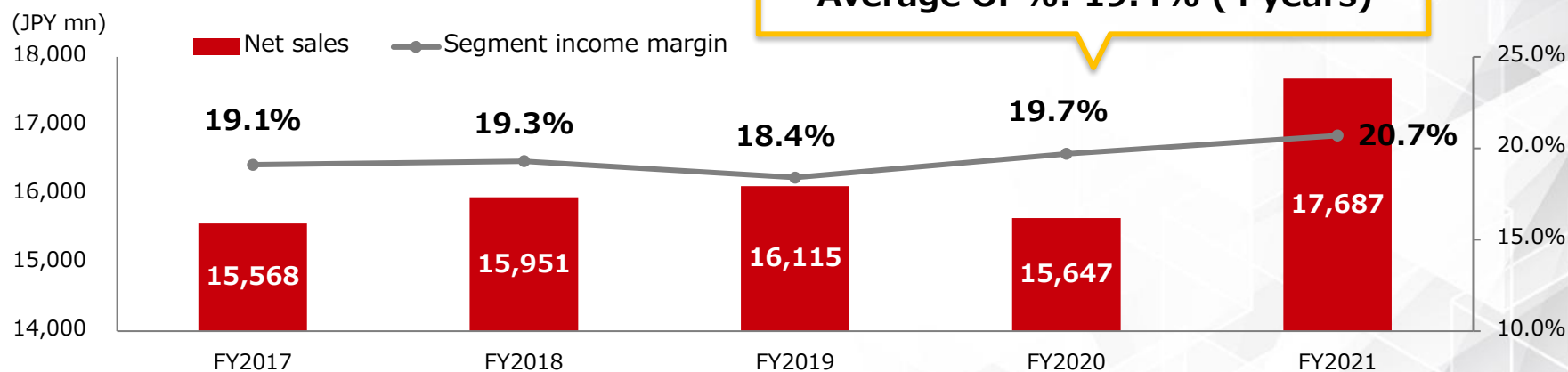
(As of March 31, 2022)

Rapid expansion of the Enterprise Business using the Entertainment Business as a foundation.

Enterprise Business














Entertainment Business



Consolidated financial statement

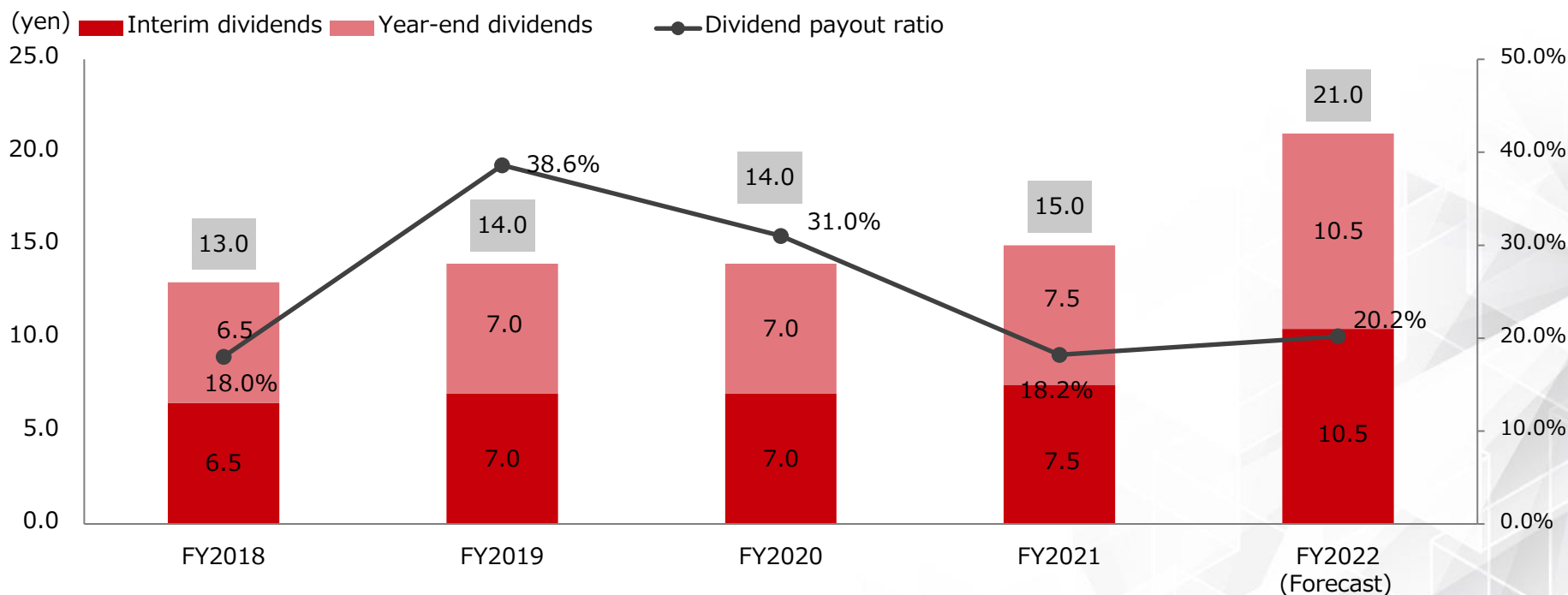
(JPY mn)	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Net sales	13,285	15,011	15,444	17,353	19,254	21,138	22,669	29,178
Enterprise Business	1,713	2,382	1,952	1,892	3,302	5,022	7,021	11,491
Entertainment Business	11,609	12,696	13,544	15,568	15,951	16,115	15,647	17,687
Adjustments	-39	-70	-52	-108	-0	-	-	-
Operating income	1,517	1,963	1,906	1,735	1,605	1,394	1,908	2,701
Enterprise Business	50	71	203	-14	-226	-67	188	649
Entertainment Business	1,915	2,379	2,453	2,966	3,086	2,964	3,077	3,668
Adjustments	-447	-486	-750	-1,215	-1,254	-1,503	-1,356	-1,616
Operating income margin	11.4%	13.1%	12.3%	10.0%	8.3%	6.6%	8.4%	9.3%
Enterprise Business	2.9%	3.0%	10.4%	-	-	-	2.7%	5.7%
Entertainment Business	16.5%	18.7%	18.1%	19.1%	19.3%	18.4%	19.7%	20.7%
Profit attributable to owners of parent	539	361	795	1,200	1,575	792	974	1,780
Total assets	8,272	6,533	7,651	8,575	9,832	10,637	14,338	17,565
Current assets	5,756	5,064	6,221	6,813	7,403	7,453	9,744	10,392
Cash and deposits	3,058	2,197	3,344	3,894	4,197	3,739	5,076	5,208
Noncurrent assets	2,516	1,469	1,430	1,761	2,428	3,183	4,593	7,172
Goodwill	1,169	437	201	150	481	1,027	2,467	4,763
Total liabilities	4,104	3,444	4,793	5,005	4,819	5,198	8,024	9,989
Interest-bearing liabilities	1,865	1,367	1,646	1,610	1,764	2,553	4,797	5,590
Total net assets	4,168	3,089	2,858	3,570	5,012	5,438	6,314	7,576
Shareholders' equity ratio	4,092	2,814	2,632	3,369	4,791	4,922	5,691	7,004
Shareholders' equity ratio	49.5%	43.1%	34.4%	39.3%	48.7%	46.3%	39.7%	39.9%
Net cash	1,193	830	1,698	2,283	2,433	1,186	278	-382
Debt Equity Ratio	0.5	0.5	0.6	0.5	0.4	0.5	0.8	0.8
Net cash provided by operating activities	870	1,080	1,825	1,436	889	1,086	1,416	3,077
Net cash used in investing activities	-568	-17	-610	-618	62	-1,018	-1,813	-2,537
Net cash provided by (used in) financing activities	-950	-1,913	-69	-250	-693	-515	1,730	-546
ROE	13.8%	10.5%	29.2%	40.0%	38.6%	16.3%	18.4%	28.1%
Dividend Payout Ratio	37.6%	60.4%	32.3%	20.9%	18.0%	38.6%	31.0%	18.2%

	Aims	Past M&As		
Enterprise Business	Engineer acquisition	 Software testing engineers in Japan	 Software development engineers in Vietnam	 Highly skilled domestic freelance engineers
	Technological capabilities	 Test automation tools Offshore in Vietnam	 Salesforce consulting	 Test automation tools for Oracle software
Entertainment Business	Services to complement localization	 Japan's largest game information website "4Gamer.net"	 Game software development/ CG content development	
	Geographical expansion	 Game translation in South Korea	 Game translation in Taiwan	 Marketing and promotion support in China and Asian countries

Basic Policy to Return Profits to Shareholders

While securing sufficient internal reserves to invest in business growth and strengthen our management structure, stable dividends to shareholders with a payout ratio of 20% as the minimum target

Changes in dividends



Major risks

Countermeasures

1. Leakage of confidential information

- Prohibiting staff members from bringing personal items into the test room
- Physical security measures including access control with fingerprint authentication and the installation of security cameras
- Introduction of a personal reference system that applies to all registered testers

2. Obsolescence of existing services by technological innovation

- Focusing on the application of the latest technologies, including a test automation project
- The development of new services to improve added value

3. Reduction of productive population in Japan

- Developing internal training programs that will enable the active participation of members with diverse generational, racial, and other backgrounds
- Strategically acquiring human resources through our overseas offices

4. Expansion of corporate acquisition and new businesses

- In-depth market research and due diligence
- Reducing risks by building a system for appropriate business management after acquisition

Our Major Initiatives and Sustainable Development Goals (SDGs)

Human resource

To resolve the shortage of IT human resource

- Internal support system for obtaining software test certification of "JSTQB".
- Provide world-class test engineer training program in "AGEST Academy" for employees.
- Provide educational opportunities through collaborations with METI, local governments including Osaka and Gunma prefecture, correspondence high schools, NPOs, and career transition support offices.



Human resource

Workplace for diverse human resources

- Provide workplaces for diverse people such as students, part-timers, young actors and musicians, and people with disabilities at test centers with over 3,000 people every day.
- Provide employment opportunities through the operation of the Tokyo Metropolis-Certified Social Firm.
- Employ foreign nationalities of more than 30 countries/areas, such as Asia, Europe and the U.S., who engage in translation/linguistic debugging service, etc.



Technology

To realize a secure and safe digital society

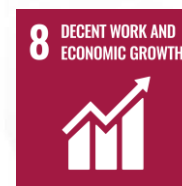
- Established "AGEST Testing Lab. " to promote research on new software testing methods to support the evolving software society through industry-academic collaboration.
- Launched factory cyber security solutions to Japan market collaboratively with four companies including Siemens K.K.



Communities

To revitalize local community and resolve IT disparities

- Create jobs throughout nationwide test centers (Lab.) and promote teleworking/work-from-home style by Remote Debugging service.
- Contribute to cyber security measures for local communities and SMEs by acquiring a certification from Information-technology Promotion Agency, Japan (IPA).





DIGITAL HEARTS HLDGS.

(Holding Company)

(As of September 30, 2022)

Enterprise Business

AGEST, Inc.

System testing, Cyber-security, etc.



LogiGear Group

System Testing, Test Automation Support



MK Partners, Inc.

Salesforce consulting



TPP SOFT, JSC

System development



DEVELOPING WORLD SYSTEMS LIMITED

Introduction and maintenance support for Oracle products



identity Inc.

IT freelance engineer platform service



CEGB Co., Ltd.

SAP implementation and operation support, system development support, etc.



Entertainment Business

DIGITAL HEARTS Co., Ltd.

Game debugging, Localization, etc.



DIGITAL HEARTS CROSS Group

Marketing support, etc.



DIGITAL HEARTS (Shanghai) Co., Ltd.

Game debugging, Localization, etc.



DIGITAL HEARTS USA Inc.

Game debugging, Localization, etc.



Orgosoft Co., Ltd.

Game debugging, Localization



Digital Hearts Linguitronics Taiwan Co., Ltd.

Game translation



FLAME Hearts Co., Ltd.

Game development and CG content development



Aetas, Inc.

Operation of a game information site, "4Gamer.net"



Strengthen our governance structure and improve business execution capabilities by increasing the number of outside directors and executive officers from FY2022.

Management structure of main group companies



DIGITAL HEARTS HLDGS. (Holding Company)

Representative Director, President and CEO Yasumasa Ninomiya	Standing Audit & Supervisory Board Member Masahide Date	Executive Officer and CSO Tadahiro Ando
Director and Chairman Eiichi Miyazawa	Audit & Supervisory Board Member Keiya Kazama	Executive Officer and CTO Kazutaka Jokura
Director, Executive Vice president and CFO Toshiya Tsukushi	Outside Audit & Supervisory Board Member Toshifumi Nikawa	Executive Officer and CIO Mamoru Seki
Outside Director Takashi Yanagiya	Outside Audit & Supervisory Board Member Yoko Okano	Executive Officer Toshiyuki Takahashi
Outside Director Emiko Murei		Executive Officer Hideto Itami
Outside Director Ryo Chikasawa		

AGEST

(Core Enterprise Business Company)

Representative Director and President Yasumasa Ninomiya	Director and CPO Mamoru Seki
Director and Executive Vice President Ken Hasegawa	Director Kenzo Miyajima
Director, Executive Vice President and CTO Kazutaka Jokura	Director and CTSO Juichi Takahashi
Director Toshiya Tsukushi	Executive Officer Yohei Takagi
Director Tadahiro Ando	Executive Officer Taku Ueda



DIGITAL HEARTS

(Core Entertainment Business Company)

Representative Director and President Toshiya Tsukushi	Director Shinichiro Kasama
Director and Executive Vice President Ryogo Hagiwara	Director Takuya Tanaka
Director Yasumasa Ninomiya	Executive Officer Koichi Nakashima
Director Tadahiro Ando	Executive Officer Tetsuya Hiyoshi

Terms	Definition
Enterprise Business	Our service-based business segment for non-gaming enterprise software, which provides software testing and cyber security. It is the main driver of growth in our corporate group due to the massive digital transformation currently sweeping through society.
Entertainment Business	Our service-based business segment for the game and entertainment industries, which provides debugging and localization. It is our “cash cow”, primary stream of revenue in Japan and continues to see extensive growth in the global market.
System Testing	This is a term used in our Enterprise Business and the same meaning of software testing. System testing comprises detection of system bugs for enterprise resource planning (ERP) software, websites, business apps, etc.
Debugging	This is a term used in our Entertainment Business. We run tests and find software bugs from the perspective of the user. Debugging generally refers to the identification and correction of errors, but we specialize in identifying and reporting them. Mobile games comprise two-thirds of our debugging requests, with console games making up the other third.
QA	An abbreviation for Quality Assurance. It includes both of software testing and game debugging.
LQA	An abbreviation for Linguistic Quality Assurance. LQA focuses on finding and fixing in-game linguistic errors that occur when translating from a foreign language.
Test Engineer	Engineers who conduct software testing. It has not been popular yet in Japan as a job career and Japan currently has a shortage of test engineers, we often recruit IT engineers and provide them the necessary training.
Tester	Staff members who carry out debugging. Most of our testers are registered part-time workers. Some are trained to work as test engineers or cybersecurity specialists.
Console Games	A game played using dedicated hardware such as the Nintendo Switch or PlayStation.
Qualitist	Our uniquely coined term for specialists who contribute to the quality of software. It refers to all IT specialists such as test engineers and cybersecurity specialists in our Enterprise Business, as well as testers, translators, 2D/3D graphic designers, etc. that work in our Entertainment Business.



DIGITAL HEARTS HLDGS.

<Contact>

Investor and Public Relations Division

Phone : +81-3-3373-0081

Email : ir_info@digitalhearts.com

HP : <https://www.digitalhearts-hd.com>

This presentation has been developed strictly for the purposes of investor relations activities and does not in any way attempt to influence or facilitate investment decisions or represent a solicitation for investment. While the information provided herein is based on that believed to be reliable at the time of submission, the Company does not guarantee its accuracy, be it partial or overall. Furthermore, because this presentation features the views and assessments of the Company at the time of its writing, it may therefore be subject to change without prior notice due to unforeseen developments in the Company's operating environment. The Company and its affiliated companies, as well as their executive officers, may hold positions in the securities and/or financial products featured in this presentation, and may stand to profit or incur losses from their positions. The relevant parties may also purchase or sell securities and/or financial products, either in person or by proxy. This presentation is protected under exclusive copyright of the Company. To quote, reproduce or transfer any section, either partially or in its entirety, is prohibited by law. Those who wish to quote from, reproduce or transfer the information contained herein must therefore acquire in advance the written consent of the copyright holder.