

Section 3

Our Strategy

SoftBank envisions a future society in which people and AI coexist, bringing with it a more convenient and comfortable lifestyle. By executing our growth strategy *Beyond Carrier* and rebuilding our business foundation by executing the medium-term management plan, we aim to fulfill our long-term vision of becoming “a company that provides next-generation social infrastructure essential for development of a digital society.”



Long-term Vision

Provide next-generation social infrastructure essential for development of a digital society

Future society and challenges for its realization

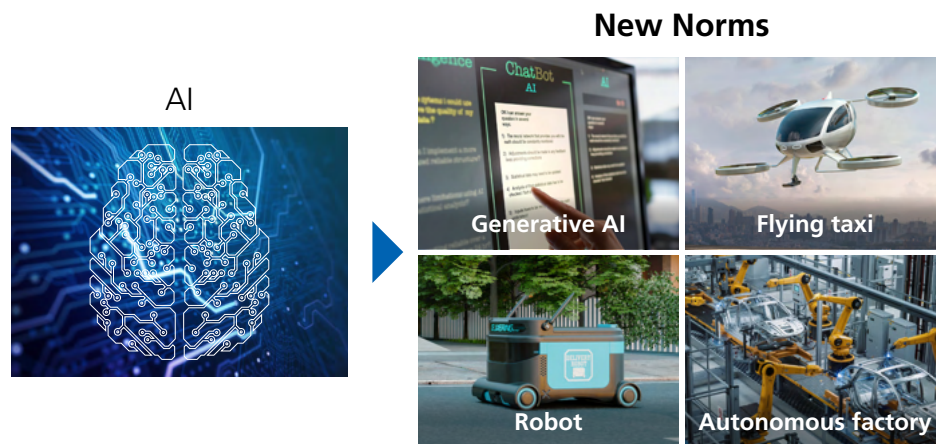
Generative AI, as exemplified by the interactive AI tool *ChatGPT*, is beginning to spread, and we are about to witness the beginning of a society that coexists with AI. We predict that society will become even more convenient and comfortable for mankind as we head into an era in which AI makes decisions on its own and optimizes industry and society, with flying taxis, delivery robots, and fully autonomous factories becoming the norm in the next generation.

On the other hand, large amounts of data will be generated in a society where AI is used on a daily basis, and the need to process this data will emerge. The graph on the bottom right shows the projected future data processing demand and electricity demand. Even if we were able to

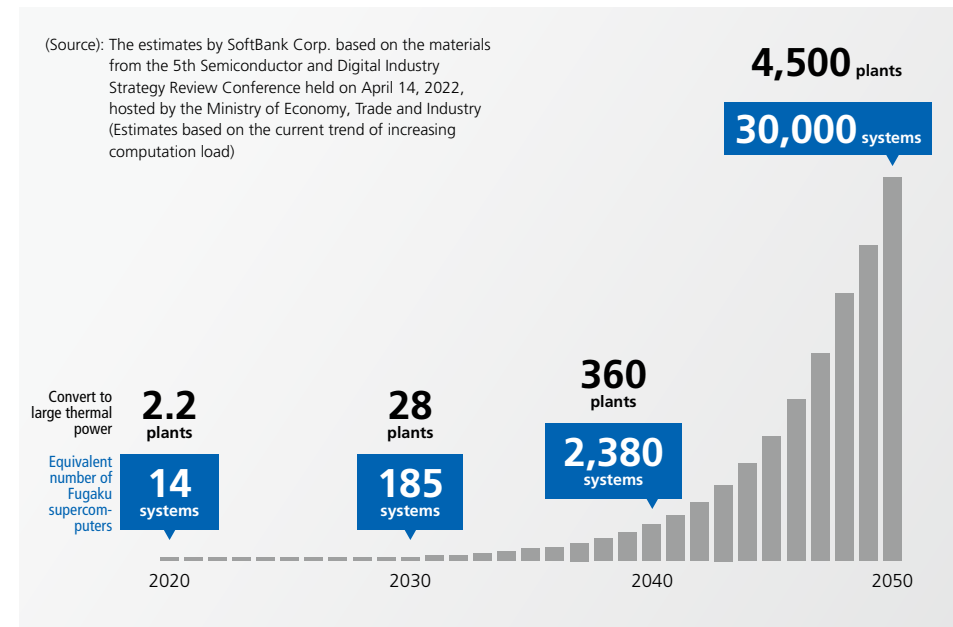
boost efficiency by more than an order of magnitude, taking into account future advances in energy-saving technology, we would still need a far greater amount of electricity than we do today. In other words, it is anticipated that we cannot create a more convenient and comfortable future society unless we can make the best use of green energy to meet the demand for electricity to handle this staggering demand for data processing. We see AI/DX*1 and GX*2 as an integral part of the digitized society of the future, and believe that it is essential to build next-generation social infrastructure that supports this.

*1 DX (Digital Transformation): Initiatives to transform business models, etc. using digital technology
 *2 GX (Green Transformation): Shift to an industrial and social structure centered on green energy

Arrival of an era in which AI makes decisions on its own and optimizes industry and society



Computing capacity required for data processing



Long-term Vision

Next-generation social infrastructure capable of handling rapidly growing demand for data processing and electricity is needed

With an eye on the aforementioned future society and the challenges for its realization, we are preparing to build the next-generation social infrastructure under our long-term vision of becoming “a company that provides next-generation social infrastructure essential for development of a digital society.” This page explains its key structure.

Distributed AI data centers

Today in Japan, data centers are concentrated in Tokyo and Osaka. As more data centers continue to be built, the supply and demand for electricity will become strained, potentially causing major power outages. Accordingly, we plan to deploy four data centers in Tokyo, Kansai, Hokkaido, and Kyushu where we will operate “Core Brain,” composed of major AI infrastructures and quantum computers. Furthermore, we would like to distribute a computing infrastructure named “Regional Brain” throughout the country. Since green energy is being actively created in rural areas, we expect a stable power procurement system to be established. In addition, we will place a computing infrastructure called “MEC*1” near devices that require real-time processing, such as for autonomous driving and robotics. This will create a structure in which data processing will take place in the most appropriate location according to usage.

*1 MEC: Abbreviation for Multi-access Edge Computing. Technology that can speed up data processing responses and optimize and accelerate communications by distributing and placing servers near communication devices such as smartphones and IoT devices

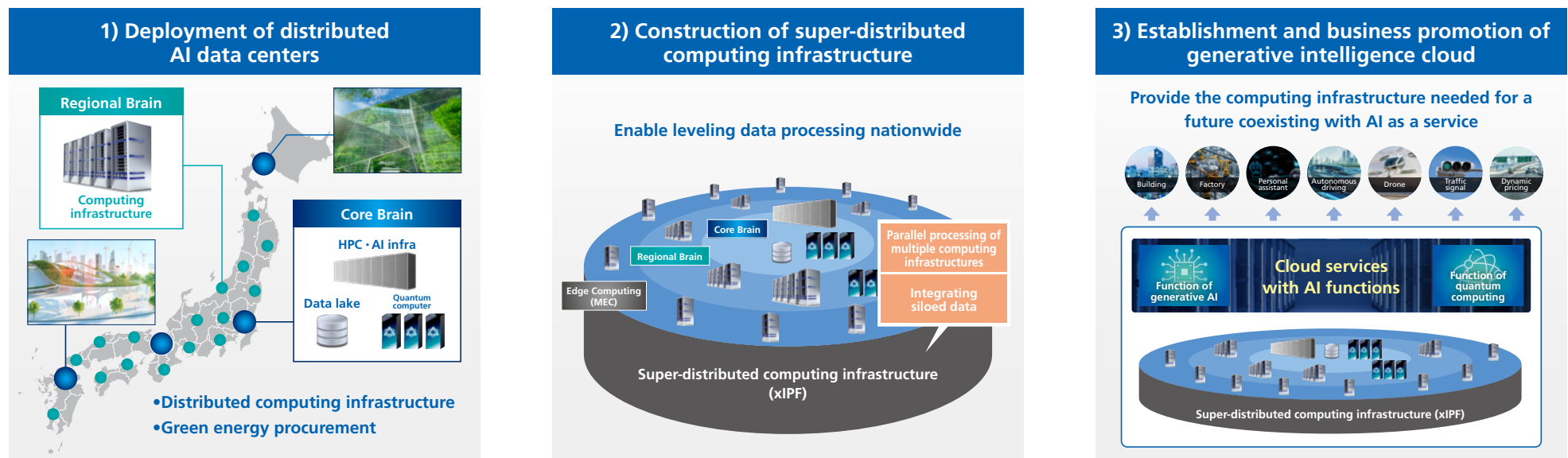
*2 xIPF (cross Integrated PlatForm): Infrastructure that can run computing infrastructure distributed across the country in parallel while operating it virtually as if it were a single data center

Super-distributed computing infrastructure (xIPF*2)

As mentioned above, the computing infrastructure itself is physically distributed across the country, but the super-distributed computing infrastructure runs this infrastructure in parallel and operates it virtually as if it were a single data center. In addition to boosting convenience by enabling the integration of various types of data, this will also ensure that social activities will not be halted even if one region is damaged by a natural disaster, as computing infrastructure located in other regions will take over the functions of the damaged region.

Cloud services with AI functions

We will deploy cloud services with AI functions (e.g., generative AI functions, quantum computing functions, etc.) on this infrastructure. The business model will be similar to the current cloud services. For example, if a business operator wants to provide services such as fully autonomous buildings using AI, it can easily use the required AI functions by paying us a usage fee. There will be no need to build an AI usage environment from scratch, which we believe will be highly convenient for businesses.



Long-term Vision

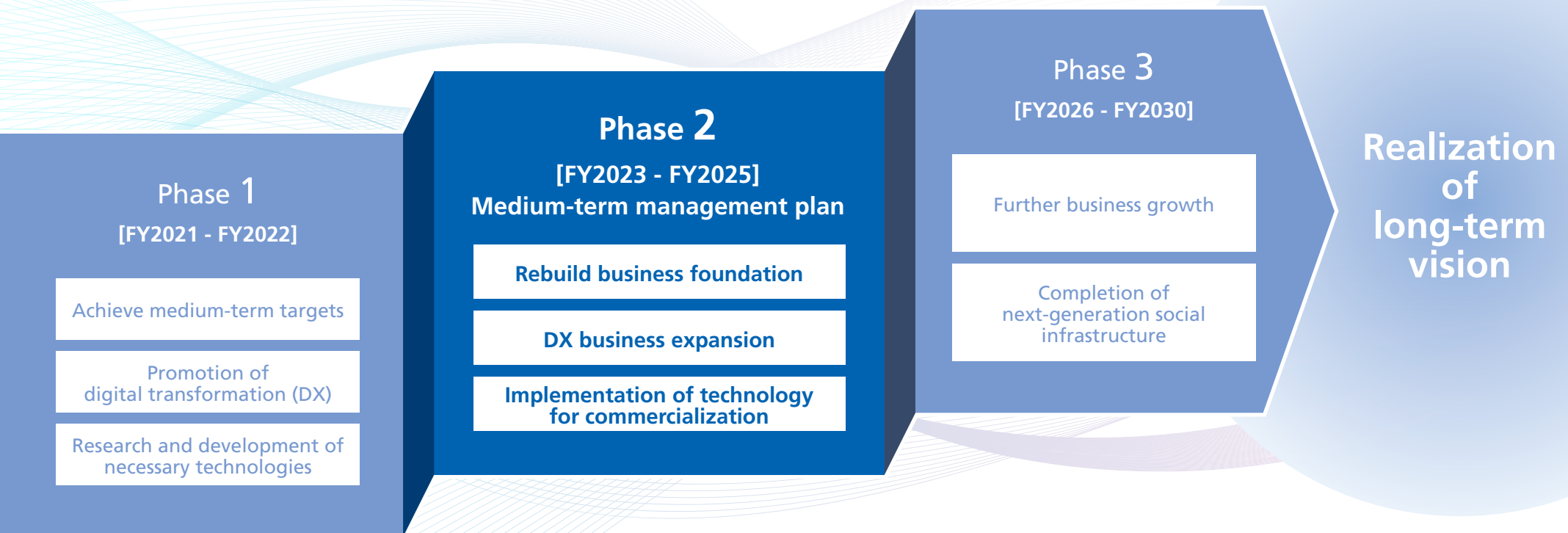
Roadmap to realizing the long-term vision

To achieve this long-term vision, we are promoting initiatives by dividing the 10-year period into three phases as shown in the figure below.

In the first phase, we worked on various technological developments in parallel with our initiatives to achieve our medium-term management targets and to promote our digital transformation (DX) business. During this period, we identified the fundamental technologies needed for next-generation social infrastructure and strengthened our structure by establishing a new advanced technology research laboratory.

We positioned the second phase as the period for focusing on the current medium-term management plan, during which we will rebuild the business foundation affected by the telecommunication charge reduction, while expanding the DX business and implementing technologies aimed at developing the next-generation social infrastructure into a business.

Finally, in the third phase, we will further grow our business and complete the next-generation social infrastructure in order to achieve our long-term vision and sustainable growth.



Medium-term Management Plan

Targets

Pursue record-high net income in FY2025
Increase ratio of renewable energy of electricity consumption by the Company (50% in FY2025, 100% in FY2030)

[Financial targets]

Net income*1 : **Pursue record-high profit (¥535 billion) in FY2025**

Operating income: **Return to FY2021 level of ¥970 billion (before mobile service price reductions) in FY2025**

[Non-financial targets]

Aim to procure all electricity needed for the telecommunications business from renewable energy generation, **with more than half of the electricity generated from renewable energy by FY2030**

Ratio of renewable energy*2 of electricity consumption by the Company*3 **FY2025: 50%**, FY2030: 100%

We will rebuild our business foundation under the medium-term management plan covering the period from FY2023 to FY2025 in order to fulfill our long-term vision of becoming “a company that provides next-generation social infrastructure essential for development of a digital society.” By executing our growth strategy *Beyond Carrier*, which is aimed at going beyond just being a telecommunications carrier to expand into non-telecommunication areas, we are striving to achieve the highest net income attributable to owners of the Company of ¥535 billion in FY2025.

To achieve this target, we aim to restore FY2025 operating income to FY2021 level of ¥970 billion (before mobile service price reductions). To achieve this operating income target, we will put the Consumer segment on a profit growth trajectory starting in FY2023, while continuing to grow the Enterprise segment, the Distribution segment, and the Media & EC segment, along with turn-

ing the Financial segment profitable.

Furthermore, we have set a target for the ratio of renewable energy*2 of electricity consumption by the Company*3, aiming for 50% by FY2025 and 100% by FY2030 (of which more than half will be procured from power generated from renewable energy sources). To achieve this target, we will not only use non-fossil certificates, but also promote energy conservation at our base stations, which account for half of our annual greenhouse gas emissions. In addition, we have entered into a major contract with a power producers to newly procure renewable energy*4, which we also expect to contribute to achieving our targets.

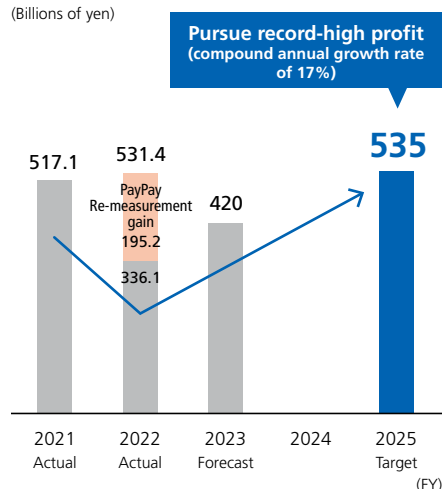
*2 Includes the use of non-fossil certificates designated as renewable energy

*3 Total of SoftBank Corp. and Wireless City Planning Inc.

*4 Mainly renewable energy with additionality (effect of encouraging additional new renewable energy generation capacity)

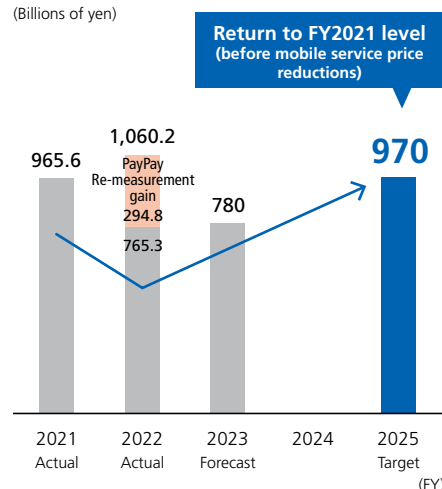
Net income

(Billions of yen)



Operating income

(Billions of yen)



*1 Net income attributable to owners of the Company

Shareholder returns

Continue to generate high level of adjusted free cash flow and **maintain high level of returns**

(Dividend of JPY 86 per share planned for FY2023)

Business targets

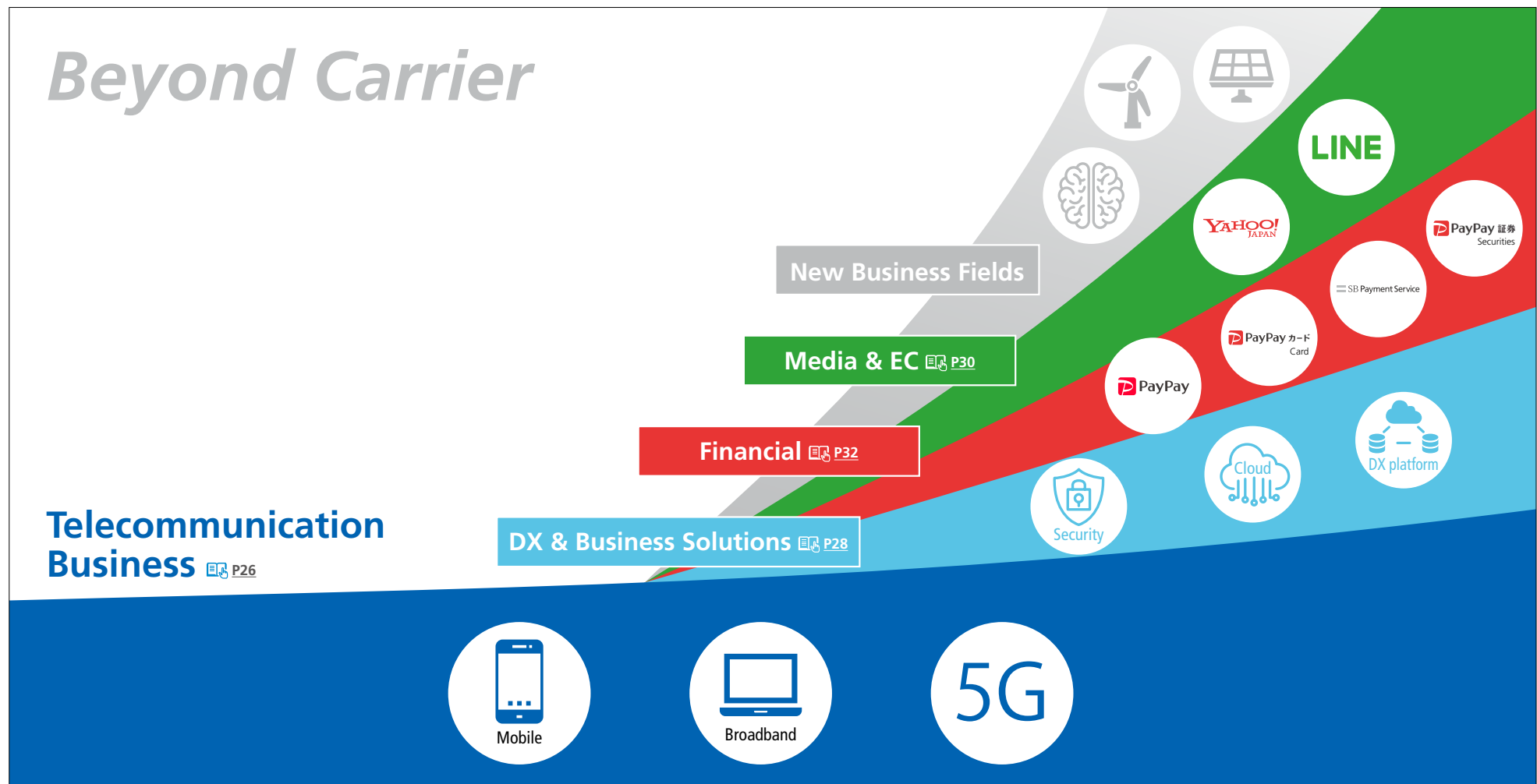
Consumer	<ul style="list-style-type: none"> Mobile service revenue: To hit bottom in FY2023 and return to growth Segment income: To hit bottom in FY2022 and return to growth
Enterprise	<ul style="list-style-type: none"> Business solution and others revenue: Double-digit growth (compound annual growth rate from FY2023 to FY2025) Segment income: Double-digit growth (compound annual growth rate from FY2023 to FY2025)
Distribution	<ul style="list-style-type: none"> Segment income: ¥30 billion in FY2025
Media & EC	<ul style="list-style-type: none"> Improvement of business efficiency and renewed growth of media, search, and commerce business from FY2024 and beyond
Financial	<ul style="list-style-type: none"> Turn profitable by FY2025

Medium-term Management Plan

Growth
Strategy

Maximize corporate value by creating businesses that going beyond just being a telecommunications carrier

Under our *Beyond Carrier* growth strategy, we aim to maximize our corporate value by pursuing sustainable growth in our core telecommunications business while going beyond just being a telecommunications carrier to actively roll out new businesses in the information and technology fields, including digital transformation (DX) & business solutions, financial, media & EC, and new business fields. In addition, by strengthening cooperation between the telecommunications business and these Group businesses, we will strengthen the competitiveness of the telecommunications business and create synergies such as expanding service users and boosting user engagement among Group businesses.



Business Strategies by Segment

Consumer Segment

We provide mobile services, broadband services, and electricity services primarily to individual customers in Japan. We also procure mobile devices and sell them to distributors operating SoftBank stores and other establishments, as well as to individuals.



Business strategy

In our Consumer segment, we are working to promote brand migration within the Group and to increase new subscriber acquisition through a multi-brand strategy that offers mobile services to meet all needs, including unlimited data allowance, low to medium data allowance, and service available exclusively online.

In addition, by offering a bundle discount combining broadband and electricity services with a smartphone, we can expect a retention effect for mobile service subscribers. Furthermore, through Group services such as *LINE*, *Yahoo! JAPAN*, and *PayPay*, which have overwhelming customer contact points in Japan, we provide our customers with everyday benefits outside of telecommunications, such as for shopping, payments, and finance.

Value creation process

Inputs	Outputs	Outcomes
(End of FY2022) ■ Smartphone subscribers: 29.26 million ■ <i>SoftBank Hikari</i> subscribers: 7.57 million ■ Electricity subscribers: 2.23 million ■ Number of stores: About 6,500 *1	(Main services and products) ■ Mobile services (<i>SoftBank</i> , <i>Y!mobile</i> , <i>LINEMO</i>) ■ Broadband service (<i>SoftBank Hikari</i>) ■ Trading and supply of electric power and provision of electric power trading agency services (<i>Ouchi Denki</i>)	(Medium-term management plan targets) ■ Mobile service revenue: Hit bottom in FY2023 and return to growth ■ Segment income: Hit bottom in FY2022 and return to growth (FY2022 actual) ■ Revenue: ¥ 2,883.1 billion, segment income: ¥ 462.4 billion (Creation of social value) ■ Provision of an environment in which everyone can access information

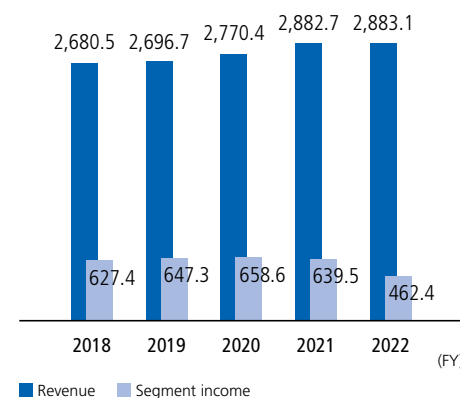
*1 Total of *SoftBank* and *Y!mobile* brands' directly-managed stores, agents, mass merchandisers and other retail channels (as of March 31, 2023)

Recognition of the business environment

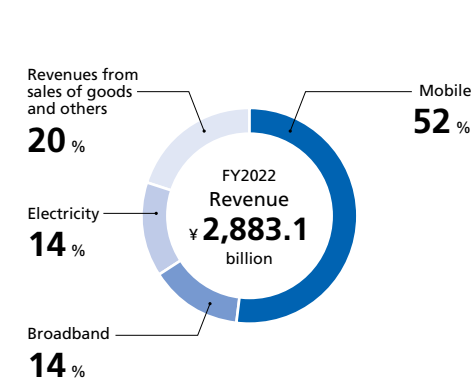
Risks	<ul style="list-style-type: none"> ■ Decline in profitability and intensifying price competition due to commoditization of the existing telecommunications services ■ Increased costs, deterioration of customer trust, or loss of subscribers due to network outages, delays in disaster recovery, or leakage of personal information ■ Impact on business models and operations due to policy changes and new laws and regulations
Opportunities	<ul style="list-style-type: none"> ■ Growth in smartphone subscribers ■ Increased ARPU and revenue reflecting communication speed and capacity increases through the nationwide expansion of 5G coverage ■ Increased customer satisfaction through high communication quality and dependable security
Strengths	<ul style="list-style-type: none"> ■ Linkage of telecommunication services with leading services in Japan such as <i>LINE</i>, <i>Yahoo! JAPAN</i>, and <i>PayPay</i> ■ Extensive telecommunications network with 5G population coverage rate of over 92% (as of March 31, 2023)

Revenue and segment income

(Billions of yen)



Revenue composition



Business Strategies by Segment / Consumer Segment

Medium-term management plan targets

Mobile service revenue

Hit bottom in FY2023 and return to growth

Segment income

Hit bottom in FY2022 and return to growth

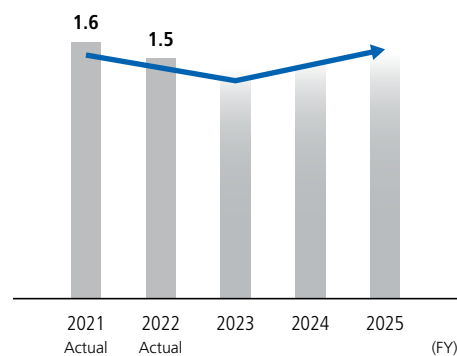
Initiatives toward achieving our targets

Due to the impact of the mobile service price reductions implemented in the spring of 2021 and other factors, mobile service revenue and segment income in FY2022 respectively declined 6% and 28% from the previous fiscal year. In order to reverse these two items in the Consumer segment, we are working to increase the number of smartphone subscribers and improve average revenue per user (ARPU) per month, as well as other efforts such as reducing costs.

We are focusing on increasing the number of smartphone subscribers, aiming to surpass 30 million in FY2023, with net additions of about one million subscribers each year thereafter. As the impact of revenue growth associated with this increase in smartphone subscribers will surpass the impact of the mobile service price reductions, we expect that mobile service revenue will hit bottom in FY2023 and return to growth thereafter. In addition, to improve ARPU, we will expand various value-added services, such as in-store support services for matters including data migration and various settings, as well as smartphone security measures and device warranties. Moreover, we will create new services in combination with Group services by expanding the standalone* 5G network, featuring ultra-high speed and large capacity, ultra-low latency, and massive machine connections.

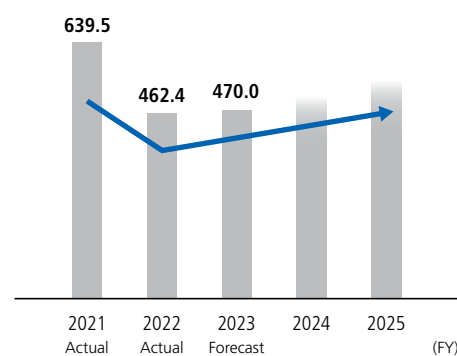
Mobile service revenue

(Trillions of yen)



Segment income

(Billions of yen)



*Standalone: A system that combines 5G dedicated core network and 5G base stations

Subscription services for in-store support

In order to drive growth in the Consumer segment, it is important to not only increase the number of smartphone subscribers, our current focus, but also to improve ARPU. As one initiative to improve ARPU, we began offering a “flat-rate in-store smartphone support” service in September 2022 which allows customers to receive various types of smartphone support at stores for a fixed monthly fee. With this service, customers can receive support for smartphone data migration and various app settings when switching to new devices, as well as periodic inspection services such as smartphone cleaning and battery status checks. Moreover, users who are not accustomed to handling smartphones and have concerns about settings can feel free to consult with stores whenever they want. In addition to this “flat-rate in-store smartphone support,” we will further expand value-added services such as security measures and device warranties to improve ARPU.

Extensive communication network with 5G population coverage rate of over 92%

Since the launch of our 5G commercial services in March 2020, we have been expanding and upgrading our base stations, and our population coverage rate exceeded 92% as of March 31, 2023. Based on our experience, we recognized that communication quality deteriorated in some cases on the borderlines between 4G and 5G areas, so we have worked to reduce the percentage of areas with low communication quality by rapidly expanding 5G areas. In addition, we are working to improve the ease of connection by surveying the usage situations of each area and fine-tuning each base station based on the results. Through these initiatives, our mobile network has achieved high communication quality and has been highly evaluated by external parties.

Business Strategies by Segment

Enterprise Segment

For enterprise customers, we provide mobile services such as mobile lines and mobile device rentals, fixed-line communications services such as fixed-line telephones and data communications, as well as various solutions for enterprises such as data centers, cloud, security, global, AI, IoT, and digital marketing services.



Business strategy

As part of our efforts to differentiate ourselves from our competitors, in the 2010s we transformed our business model from conventional stand-alone telecommunications service sales selling fixed-line telephone services, mobile communications services, and other services separately, into a solution-based business that resolves issues faced by companies by combining cutting-edge digital products. In our solution-based business, digital professionals who have undergone

consulting and other training programs uncover the individual issues faced by companies and municipalities, and propose and sell solutions with a combination of cutting-edge digital products including cloud, security, and IoT services along with operation know-how.

Value creation process

Inputs	Outputs	Outcomes
(End of FY2022) <ul style="list-style-type: none"> ■ Sales personnel: About 3,300 ■ Business with 93 % of large corporations*1 	(Main services and products) <ul style="list-style-type: none"> ■ Mobile services ■ Fixed-line communications services ■ Cloud, security, IoT, and other solution services 	(Medium-term management plan targets) <ul style="list-style-type: none"> ■ Business solution and others revenue: Pursue double-digit compound annual growth rate*2 ■ Segment income: Pursue double-digit compound annual growth rate*2 (FY2022 actual) <ul style="list-style-type: none"> ■ Revenue: ¥ 750.3 billion, segment income: ¥ 135.1 billion (Creation of social value) <ul style="list-style-type: none"> ■ Labor productivity improvement through DX, revitalization of local communities

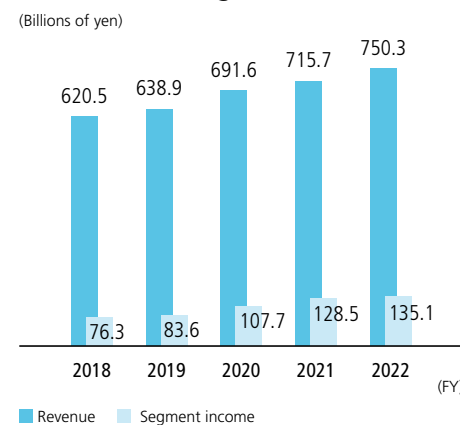
*1 Approximate share of Japan-listed companies with annual sales of ¥100 billion or more that do business with SoftBank Corp. within FY2022

*2 Compound annual growth rate from FY2023 to FY2025

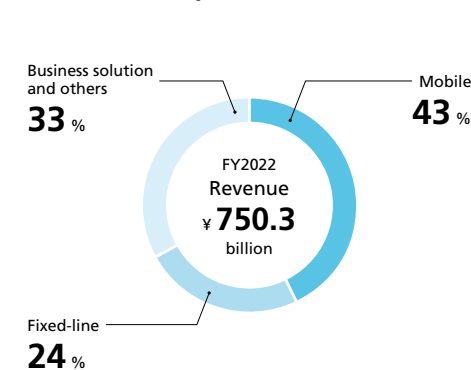
Recognition of the business environment

Risks	<ul style="list-style-type: none"> ■ Customers lack of corporate digital strategy and vision, and decline in willingness to change ■ Loss of promising growth markets caused by stagnation in digitalization due to delay in loosening of regulations ■ Decline in profitability due to intensified competition from successive new entrants into the solutions market for enterprise customers ■ Increase in research and development expenses, procurement costs, and the others due to business expansion
Opportunities	<ul style="list-style-type: none"> ■ Acquisition of human resources and knowledge through collaboration with diverse partners, and swift gaining of market share through speedy business development ■ Expansion of opportunities to provide solutions for measures for the aging society as well as regional revitalization ■ Increasing opportunities to enter new business fields such as AI
Strengths	<ul style="list-style-type: none"> ■ Provision of total solution utilizing Japan's largest B2C platforms, including <i>LINE</i>, <i>Yahoo! JAPAN</i>, and <i>PayPay</i> ■ Organizational structure that provides a one-stop shop for a wide range of digital products ■ Abundance of digital professionals capable of planning and formulating digitalization solutions for companies

Revenue and segment income



Revenue composition



Business Strategies by Segment / Enterprise Segment

Medium-term management plan targets

Business solution and others revenue

Pursue double-digit compound annual growth rate*1

*1 Compound annual growth rate from FY2023 to FY2025

Segment income

Pursue double-digit compound annual growth rate*1

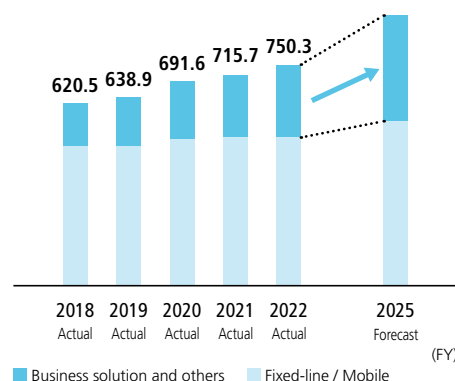
Initiatives toward achieving our targets

In the Enterprise segment, we are aiming for further growth by providing solutions tailored to company scale and generating new businesses directed at solving social issues. In the provision of solutions tailored to company scale, we aim to increase revenue per company by offering comprehensive solutions that solve pain points for large corporations, most of which are already our customers. At the same time, starting in FY2023, we have implemented measures in earnest to develop the small and medium-sized enterprise market, which account for the majority of the number of companies in Japan, as new customers. In order to gain customers, in addition to cooperating with existing dealers, we will efficiently expand sales channels through collaboration with major client companies, industry associations, Group companies, and others that have strengths in the same market. For the generation of new businesses, we launched the Digital Transformation (DX) Division in 2017, with approximately 450 employees as of March 2023. Currently, as part of this effort, we are working on building the data integration platform “xIPF.*2” By providing healthcare, retail, real estate, and other services on this platform, we aim to contribute to the promotion of DX in Japan and expand the revenue of the Enterprise segment.

*2 xIPF (cross Integrated PlatForm): A platform that enables computing infrastructure distributed across Japan to operate in parallel, virtually like a single data center [P22](#)

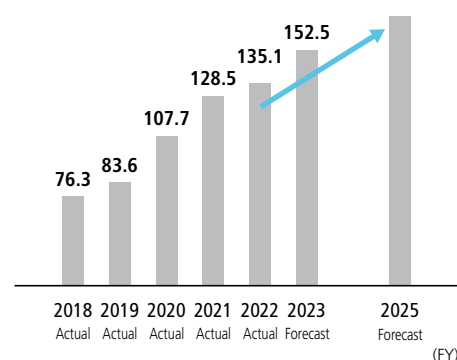
Revenue

(Billions of yen)



Segment income

(Billions of yen)



Announcement of strategic alliance with Microsoft Japan

In August 2023, the Company and Microsoft Japan Co., Ltd. announced a strategic alliance focused on cloud services and the generative AI domain with the aim of accelerating DX for enterprises and municipalities in the Japanese market. Going forward, we will combine Microsoft Azure and other services provided by Microsoft Japan Co., Ltd. with our 5G network and other services to enable cutting-edge work styles and offer comprehensive solutions tailored to the characteristics of customers in a variety of industries. In addition, we have begun the Microsoft 365 Copilot Early Access Program which incorporates GPT-4 based large language models developed by US-based OpenAI. We will actively use this service in our business operations as early as possible, and apply the knowledge and expertise we gain to our proposals to customers. We will also make proposals and sales in combination with our solutions for enterprise customers.

Autonomous building business initiatives

In recent years, with the spread of diverse workstyles and the challenge of attracting human resources due to the shrinking workforce, there is a growing need for office buildings that are comfortable and appealing spaces. In order to meet such needs, we are engaged in the autonomous building business. Autonomous building refers to a service in which an OS installed in a building is linked to data obtained from IoT sensors and the like equipped in the building's facilities to improve the efficiency of building operation and management, such as automating cleaning and air conditioning and reducing elevator congestion, as well as to enhance user convenience. We anticipate that the accumulation of data over time will lead to increases in the value of buildings, and expect this business domain to be a growth driver for the Enterprise segment in the future.

Business Strategies by Segment

Media & EC Segment

We offer a comprehensive range of online and offline services centered on media and commerce services. In the media field, we provide advertising-related services on its portal site, *Yahoo! JAPAN*, and the messenger app, *LINE*. In the commerce field, we provide online shopping services such as *Yahoo! JAPAN Shopping* and *ZOZOTOWN*, and reuse services such as *YAHUOKU!*. In the strategy field, we provide FinTech services and more.



Business strategy

In the Media & EC segment, we have overwhelming customer contact points in Japan, centered on strong brands such as *LINE* and *Yahoo! JAPAN*. We differentiate ourselves from our competitors by analyzing the data obtained from each service and providing optimal services to users. Furthermore, we aim to create further synergies within the Group

through collaboration with telecommunications services and strengthening sales activities that leverage our enterprise sales expertise.

Value creation process

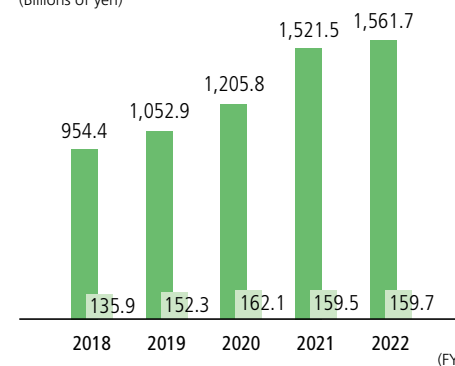
Inputs	Outputs	Outcomes
(End of FY2022) ■ Number of <i>Yahoo! JAPAN</i> monthly users 85 million ■ Number of <i>LINE</i> monthly active users 95 million	(Main services and products) ■ Media-related services such as advertising, searches, etc. ■ E-commerce platforms (<i>Yahoo! JAPAN Shopping</i> , <i>ZOZOTOWN</i>)	(Medium-term management plan targets) ■ Improvement of business efficiency and renewed growth of media, search, and commerce businesses from FY2024 and beyond (FY2022 actual) ■ Revenue: ¥ 1,561.7 billion, segment income: ¥ 159.7 billion ■ EC transaction value ¥ 4.1 trillion, ■ Total advertising revenue: ¥ 591.4 billion (Creation of social value) ■ Increased convenience due to the spread of online shopping, etc.

Recognition of the business environment

Risks	<ul style="list-style-type: none"> ■ Decline in profitability due to intensifying competition of EC, mismatch with customer needs and deterioration of advertising market conditions ■ Loss of market share due to the rise of competitors' services and platforms ■ Impacts on reliability and number of users caused by information security threats and stricter regulations
Opportunities	<ul style="list-style-type: none"> ■ Increased revenue opportunities due to deepening data-driven marketing ■ Increased advertising revenues as user base increases and synergies between platforms ■ Development of new business fields and partnerships by leveraging diverse platforms
Strengths	<ul style="list-style-type: none"> ■ Top class of customer contact points in Japan, including Internet services with the No. 1 total digital reach in Japan and smartphone apps with the No. 1 active reach in Japan ■ Linkage with telecommunications services and Group services such as <i>PayPay</i>

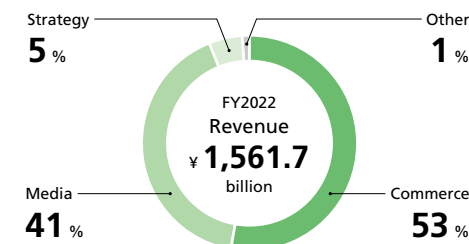
Revenue and segment income*

(Billions of yen)



■ Revenue ■ Segment income

Revenue composition



*The Company has changed the accounting policy for transactions under common control from the book-value method to the acquisition method from the third quarter of FY2022. The Company added the Financial segment to the reportable segments from the third quarter of FY2022 and revised operating companies that comprise each reportable segment. Accordingly, figures of the Media & EC segment for FY2021 and FY2022 have been retrospectively amended.

Business Strategies by Segment / Media & EC Segment

Medium-term management plan targets

Improvement of business efficiency and renewed growth of media, search, and commerce businesses from FY2024 and beyond

Initiatives toward achieving our targets

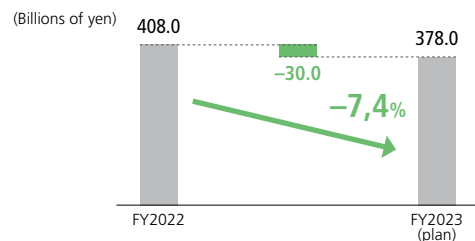
Z Holdings announced the policy to implement a group reorganization centered on Z Holdings, LINE, and Yahoo Japan in February 2023. Through this, the Z Holdings Group will seek to add value to all of its services by strengthening coordination between each service and promoting the restructuring of services through faster product-related decision-making. In addition to services, the integration of customer bases and organizations previously held by LINE and Yahoo Japan will be more strongly promoted. As of October 1, 2023, the group reorganization has been completed, and Z Holdings has changed its trade name to LY Corporation.



Through this group reorganization, we will work to improve the efficiency of businesses and services that had previously overlapped within the group. This enhancement of business efficiency will help the new company reduce its fixed costs (excluding amortization) by about ¥30 billion in FY2023 compared to FY2022, thereby generating investment capacity while securing an increase in profits.

Reduction of fixed costs*2

(excluding amortization) of the new company



Main reduction items
Hiring freeze
Thorough review of outsourcing expenses
Reduction of officer remuneration
Narrowing down of marketing expenses
Consolidation of offices
Integration and streamlining of overlapping functions accompanying the merger

*2 Reduction amount of fixed costs excluding listed subsidiaries ZOZO, Inc., ASKUL Corporation, ValueCommerce Co., Ltd. and consolidated subsidiary PayPay Corporation

Provision of LYP Mileage

One example of an initiative to accelerate the generation of synergies within the Group is *LYP Mileage*, which began to be offered in March 2023. When users purchase eligible products offline at eligible stores with *PayPay* payment, or online at eligible stores on *Yahoo! JAPAN Shopping*, and meet the purchase amount set as a condition for each product, users receive benefits such as *PayPay* Point rewards. Manufacturers and other companies participating in the *LYP Mileage* platform can use both the offline and online purchase data of users for continuous and effective sales promotion, allowing them to reduce sales promotion costs, maximize life time value (LTV), and improve customer loyalty.

We will promote initiatives for the renewed growth of media, search, and commerce businesses in FY2024 and beyond. In October 2023, we will start linking *LINE* IDs and *Yahoo! JAPAN* IDs, and in November of the same year, we plan to offer a cross-Group membership program called *LYP Premium Membership* for users who have already linked their IDs. *LYP Premium Membership* is an upgraded version of the services that have been offered under the name *Yahoo! JAPAN Premium Membership*. We plan for it to include a service offering the unlimited use of *LINE* stamps*3 and a service that enables saving videos in *LINE* albums. In addition, *LINE* users will also be able to get benefits while using the wide variety of *Yahoo! JAPAN* services, including *Yahoo! JAPAN Shopping* and *YAHUOKU!*. Through such initiatives, we aim to promote ID linkage and expand the user bases of various services. In addition, we have announced a policy to start ID linkage with *PayPay* by the end of FY2024.

*3 Only for premium-eligible stamps of *LYP Premium Membership*

Business Strategies by Segment

Financial Segment

We provide cashless payment services such as QR code payments and credit card services, as well as smartphone-based securities services mainly for our individual customers. In addition, we provide payment processing services offering one-stop payment solutions for diversified payment methods including credit cards, electronic money, and QR codes mainly for our enterprise customers.



Business strategy

In the Financial segment, we aim to achieve further growth of PayPay through Group synergies and drive the growth of other financial services by leveraging the strengths of PayPay as a leading payment platform. Furthermore, by further strengthening ties with the Group's telecommunications, e-commerce, and other businesses, we aim to send customers

from the customer base of our Group businesses and grow payment transaction volumes through increased e-commerce usage. At the same time, we will also generate Group-wide synergies to increase the number of service users and enhance user engagement.

Value creation process

Inputs	Outputs	Outcomes
(End of FY2022) <ul style="list-style-type: none"> PayPay registered users: Over 56 million*¹ Active PayPay Card cardholders: 10.04 million 	(Main services and products) <ul style="list-style-type: none"> Cashless payment service (PayPay) Credit card (PayPay Card) Payment processing services Smartphone-based securities services 	(Medium-term management plan targets) <ul style="list-style-type: none"> Turn profitable by FY2025 (FY2022 actual) Revenue: ¥ 142.3 billion (segment loss: ¥12.4 billion) ■ PayPay consolidated GMV: ¥ 10.2 trillion*² SB Payment Service Corp. GMV: ¥ 6.7 trillion (Creation of social value) Increased convenience through spread of cashless payments

*1 Number of users who have registered for a PayPay account. Figures are rounded down to the nearest 0.01 million. *2 The use of the "Send/Receive" function of "PayPay Balance" between users is not included. Payments through the deferred payment "Credit (Pay later, former Atobarai)" launched in February 2022 are included. GMV of PayPay Corporation and PayPay Card Corporation are totaled. The figures eliminate internal transactions between the two companies.

Recognition of the business environment

Risks	<ul style="list-style-type: none"> Decline in profitability due to intensifying competition in the financial and payment businesses and mismatch with customer needs Decreased competitiveness due to financial market volatility, stricter financial regulations, and the entry of startups into the market Occurrence of operational risks such as IT system failures, information security threats, and human error
Opportunities	<ul style="list-style-type: none"> Increased competitiveness due to entry into new business fields and new service offerings Expansion of financial markets due to new technologies and deregulation
Strengths	<ul style="list-style-type: none"> Efficient promotion of growth of related financial services leveraging the strength of PayPay as a payment platform with one of the largest customer bases in Japan Synergies from strengthened ties with Group businesses such as telecommunications and e-commerce etc.

About the Financial segment

Effective October 1, 2022, the Company made PayPay, a provider of cashless payment services, a subsidiary. On the same day, PayPay acquired the shares of PayPay Card Corporation, which operates a credit card business, from Yahoo Japan, making it a wholly owned subsidiary. Taking this opportunity, we newly established the Financial segment in the third quarter of FY2022. In addition to PayPay and PayPay Card Corporation, the Financial segment includes SB Payment Service Corp., which provides payment processing services, and PayPay Securities Corporation, which provides smartphone-based securities services.

Financial segment

Provision of cashless payment services

Provision of payment processing services

Provision of smartphone-based securities services

Business Strategies by Segment / Financial Segment

Medium-term management plan targets

Turn profitable by FY2025

Initiatives toward achieving our target

For PayPay, in addition to continuous expansion of GMV of the cashless payment service, we aim to achieve rapid growth through diversification of revenue sources, including expansion of value-added services for merchants such as coupons and stamp cards, and strengthening of linkages with the Group's financial services such as asset management and insurance. At the same time, we aim to seize new growth opportunities, such as entering the area of salary payments via digital wallets. In addition, for the payment settlement service provided by SB Payment Service Corp, we aim to increase the number of merchants by offering a wide variety of payment settlement services that meet the various needs of existing corporate clients and merchants of our Group companies, while aggressively capturing payment settlement opportunities other than telecommunication charges and maximizing GMV. PayPay Securities Corporation, which is growing rapidly on the strength of its strong partnership with PayPay, will continue to efficiently increase its users by leveraging PayPay's customer base.

Announcement of entry into digital payroll

PayPay has submitted the application as a Fund Transfer Operator to receive designation by the Minister of Health, Labour and Welfare in a step towards supporting digital payroll. The system for digital payroll allows companies to pay salaries using payment apps or electronic money on smartphones, without going through a bank account. The realization of salary payments via digital payroll will offer PayPay users more freedom by adding a new method to receive wages. In addition, it will also provide more convenience by eliminating the current hassle of users when topping up their PayPay Balance. Moreover, it is expected to reduce various workloads related to salary payment at the companies that have introduced the service.

By actively working on digital payroll, PayPay aims to increase the number of payments and GMV, expand the use of various Group services such as financial services, and further drive the spread of cashless payments in Japan.

Future initiatives of PayPay

Pursue high growth with diversified revenue sources



Financial services

Asset management, insurance
Personal and corporate loans, etc.



Value-added services for merchants

Sales promotion services for
merchants such as coupons and
stamp cards, etc.

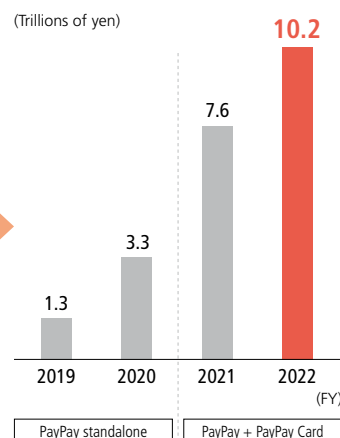


Payment services

Code payment
(balance payment and *Credit*)
and Card payment

Maximize consolidated GMV*

(Trillions of yen)



Future initiatives of SB Payment Service Corp.

Growth strategy

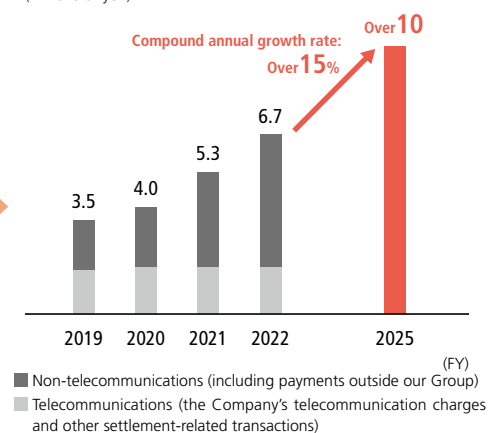
Increase in number of
merchants
through utilization of Group
assets, etc.



Increase in transaction
volume per merchant
by strengthening in-house
solutions, etc.

Gross merchandise value (GMV)

(Trillions of yen)



*PayPay consolidated GMV: The use of the "Send/Receive" function of "PayPay Balance" between users is not included. From FY2021Q4 onward, payments via *Alipay* and *LINE Pay*, etc. are included. Payments through the deferred payment "*Credit* (Pay later, former *Atobarai*)" launched in February 2022 are included. GMV of PayPay Corporation and PayPay Card Corporation have been retrospectively totaled since FY2021. The figures eliminate internal transactions between the two companies.

Message from the CFO



Face change while focusing on the future even when times are tough, and be a compass that leads the way

Kazuhiko Fujihara

Board Director
Executive Vice President & CFO

Review of medium-term targets

Progress of medium-term targets ended in FY2022

In August 2020, we announced our medium-term target to reach ¥1 trillion in operating income in FY2022. Subsequently, we faced major internal and external changes in the environment, including mobile service price reductions by carriers and lifestyle changes stemming from the spread of COVID-19. In particular, with regard to the mobile service price reductions, we had internally anticipated a cumulative impact of over ¥150 billion in lost revenue over the two-year period from FY2021 to FY2022. As a result, the hurdle for achieving our targets became much higher than when we announced our medium-term targets. However, it was precisely because of this situation that we keenly felt that achieving the ¥1 trillion target carries an even greater significance as a promise to our shareholders and

investors, and we have been insistent on achieving this target. To achieve our target, we worked on growing our user base in our mainstay Consumer segment, with a particular focus on acquiring users from other carriers by using the mobile number portability (MNP) program. This is because our *Beyond Carrier* growth strategy is based on our core telecommunications business, and building a solid smartphone customer base is the foundation of our business design and the source of future returns. We faced a challenging environment, but rather than shrinking in fear, we took an aggressive stance and were able to expand our customer base. Furthermore, in working to achieve our goal, we believe that the Enterprise segment, which has an expanded range of business solutions and other services to capture enterprise digitalization demand, as well as growth in businesses other than mobile communications services, including *Yahoo! JAPAN* and *LINE*, have been substantial. In addition to the profit gained from this business growth, we recorded a remeasurement gain from making PayPay a consolidated

subsidiary, which has been performing well since its launch. As a result, we were able to achieve our goal, with operating income coming in at ¥1,060.2 billion in FY2022. Once we announced the “¥1 trillion” target to the public, the entire management team considered it a “commitment,” and we are very proud to have achieved this target. However, our commitment is not limited to the FY2022 target. We were able to achieve all of the revenue, operating income, and net income targets that we set for each year leading up to the medium-term management targets, as we all worked together and persevered in our efforts to achieve these goals.

As I mentioned last year, we are not just trying to patch up our performance by recording accounting profits from the remeasurement gain on PayPay, but we are also focused on generating a higher level of adjusted free cash flow than the previous year to truly boost our corporate value, and we generated ¥618.6 billion in adjusted free cash flow in FY2022. As a result, we were able to maintain a dividend per share of ¥86. We have set a target of a total shareholder return ratio of about 85%*1 for the three-year period from FY2020 to FY2022, and with the share repurchases announced in May 2023, we are on track to achieve this goal. I believe we were able to meet the expectations of our shareholders by balancing growth and returns.

*1 Total amount of dividends paid and treasury stock retired during the three years from FY2020 to FY2022 / total amount of net income attributable to owners of the Company during the same three years

Medium-term targets (announced in August 2020)

(yen)	FY2022 targets	FY2022 actual	Evaluation
Revenue	5,500 billion	5,912.0 billion	Substantially exceeded
Operating income	1 trillion	1,060.2 billion	Achieved Contribution from PayPay remeasurement gains and other factors offset significant changes in the business environment resulting from mobile service price reductions
Net income*2	530 billion	531.4 billion	

*2 Net income: Net income attributable to owners of the Company

Message from the CFO

Medium-term management plan

Rebuilding our business infrastructure

We announced our medium-term management plan ending in FY2025. The plan's theme is to rebuild our business infrastructure and to recover from the impact of the mobile service price reductions that took place in the spring of 2021.

In formulating the plan, we determined that net income attributable to owners of the Company ("net income") is the most important indicator, and set a target of achieving record-high net income of ¥535 billion in FY2025. The reason for changing the most important indicator from operating income in the previous medium-term targets to net income this time is that the subsidiaries that make up our Group are not only wholly owned subsidiaries, but also include subsidiaries with minority shareholders such as Yahoo Japan, LINE, and PayPay, and we believe that net income is the most appropriate indicator for measuring our performance.

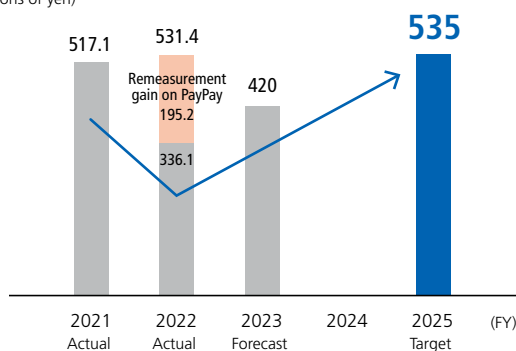
In addition, we set our operating income target at ¥970 billion for the final year of this medium-term management plan. This is because we firmly incorporated milestones for continued growth beyond the period of the medium-term management plan. We calculated this target by working backward from the record-high ¥535 billion net income target, and it is by no means an easy target to achieve. However, we

Medium-term management plan financial targets

(Billions of yen)	FY2022 Actual	FY2023 Forecast	FY2025 Target
Revenue	5,912.0	6,000	6,500
Operating income	1,060.2	780	970
Net income	531.4	420	535
(Reference) Adjusted EBITDA	1,566.4	1,570	1,750

Net income

(Billions of yen)



believe that returning operating income to the level before mobile service price reductions is the least we can do to meet the expectations of our shareholders and investors, and we are determined to achieve our operating income target.

Consumer segment outlook

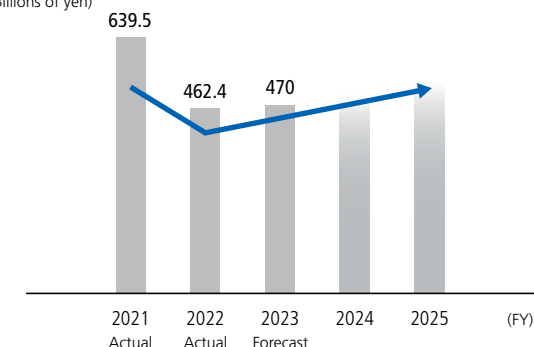
Mobile service revenue in the Consumer segment was greatly affected by the mobile service price reductions, but we are aiming for a turnaround after hitting bottom in FY2023. In terms of segment income, we are aiming for a turnaround after hitting bottom in FY2022, one year earlier than mobile service revenue. The rationale for this is that, although the impact of the mobile service price reductions and higher electricity costs will continue, we expect to be able to offset this through cost reductions, while the decline in ARPU is beginning to narrow, and the factors negatively affecting profits are already factored into the picture. On the other hand, the number of smartphone subscribers is increasing steadily driven by *Y!mobile* as ongoing efforts to acquire users from other companies materialize, and we can expect higher revenue and profits from this. We have three brands, *SoftBank*, *Y!mobile*, and *LINEMO*, and we would like our customers to experience the added value we offer by starting with *Y!mobile*, which offers lower monthly charges for low to medium data usage.

Subsequently, we would like to increase ARPU by strengthening our efforts to encourage customers to migrate to the *SoftBank* brand, where they can receive that added value in the form of unlimited data plans.

We will also continue to focus on expanding our customer base. Competition for customer acquisitions in the telecommunications industry is intensifying today, and both new acquisitions and churn are high. Competition will only intensify, and we expect conditions to remain challenging. In FY2022, we spent a lot of money on customer acquisition, but the cost-effectiveness of this investment is verified by setting a lifetime

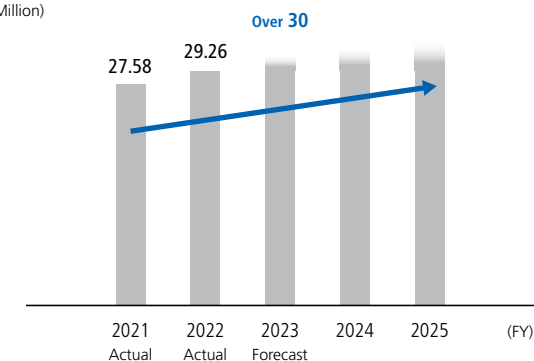
Consumer segment income

(Billions of yen)



Number of smartphone subscribers

(Million)



Message from the CFO

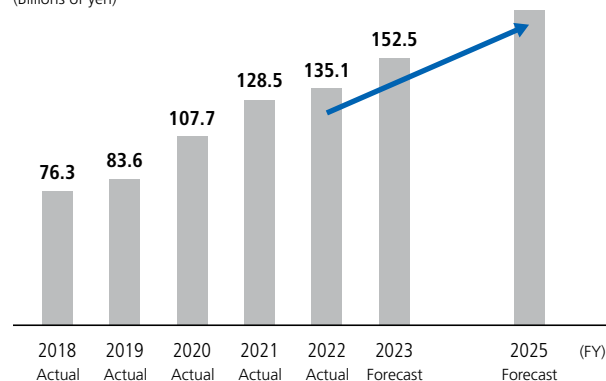
value (LTV) for each brand. Furthermore, the smartphone customer base is very important as a foundation for creating Group synergies through smartphone-related services provided by the Group, such as *PayPay* and *LINE*, to acquire subscriptions and promote continued use. Through these efforts, we will surpass our 30 million total smartphone subscription target in FY2023 and aim to continue adding 1 million smartphone subscriptions each year.

Tackling the Enterprise segment

In this medium-term management plan, we expect significant growth from the Enterprise segment, particularly from business solution and others. We are targeting double-digit growth (measured as compound annual growth rate) in both Enterprise segment income and revenue from business solution and others. In order to achieve our targets, we plan to boost transaction value per customer by cross-selling to our major clients, large and medium-sized companies, by encouraging them to continue using the solution services they are already using, as well as by combining a wide range of digital products and services to help them solve their management issues. We are also developing our clientele of SMEs, which account for 99.8% of all Japanese companies. As a leader in digitalization, we hope to help SMEs

Enterprise segment income

(Billions of yen)



go digital by providing solutions tailored to their size, while collaborating with customer companies, organizations, and Group companies that have SMEs as customers or members. In addition to this, we will be working on building a data integration platform (xIPF) as a new business. This is a platform for linking and making available various types of data (private data, national data, sensor data) that are currently disconnected and stored separately. It is still in the research and development stage, but once we are able to implement it, we will be able to further promote digitalization in various fields such as health-care, retail, and real estate (P22). We hope to grow our Enterprise segment by providing advanced necessary services tailored to the size of each company, such as more advanced services for large companies and services that serve as a gateway to digitalization for SMEs, as well as solutions that contribute to the digital transformation of society at large.

Renewed growth in the Media & EC segment

For the Media & EC segment, we are aiming for renewed growth in media, search, and commerce, while also streamlining operations. To consolidate the group's inherent strengths and accelerate synergy creation, we have reorganized the group in October 2023 and changed the company name from Z Holdings to LY Corporation. Taking advantage of this reorganization, we will make decisions more quickly and reduce fixed costs by streamlining overlapping businesses along with other measures. Furthermore, we are preparing to provide services that will delight our customers by integrating the IDs of *LINE* and *Yahoo! JAPAN* and revamping our premium membership program. In addition, we believe we can push for renewed growth in the Media & EC segment by making full use of *LINE* and *PayPay* to improve profitability in the media and search domain and by integrating IDs with *PayPay*, which we plan to do during FY2024.



Turning the Financial segment profitable

For the Financial segment, we have set a target of generating operating income by FY2025. *PayPay* boasts diverse revenue sources, including financial services, value-added services for merchants, and payment services, and its gross merchandise value (GMV) has reached ¥10 trillion*³ in four and a half years since launching the service. With the integration of *PayPay Card*, payment methods such as code payment, *Credit* (formerly *Atobarai*), and credit card payment became seamless, and *PayPay*'s user base, value per transaction, and number of transactions grew, thereby boosting GMV significantly. We are already well within range of turning a profit in the regular payment business. Going forward, I believe it is important to add depth to each of these services and accelerate growth in terms of business scale. In addition, we are aiming to enhance in-house solutions to boost transaction value per merchant at SB Payment Service Corp. by leveraging Group assets to grow the merchant base.

In this way, we aim to achieve strong growth with diversified revenue sources, and are mapping the way to turn the Financial segment profitable by FY2025 by expanding the GMV of *PayPay* and SB Payment Service Corp.

*³ GMV of *PayPay Card Corporation* is combined with GMV of *PayPay Corporation* retroactively to FY2021, and internal transactions between *PayPay Corporation* and *PayPay Card Corporation* have been eliminated.

Message from the CFO

Costs

Cost reduction outlook

Given changes in social conditions, such as rising electricity prices and inflation, we expect to see a variety of factors driving up costs during the medium-term management plan period. However, we believe that we will be able to handle this cost increase as our depreciation and amortization will start declining. This is because the depreciation on the major ¥700 billion per year capital expenditures made since FY2012, when we secured the platinum band, is coming to an end. Furthermore, we expect to see lower network operating costs as we gradually phase out services such as PHS, 3G, and ADSL. For these, we aim to accelerate the effects of cost reductions by early removal of equipment. In this way, we will continue to tightly control costs.

Shareholder returns

Maintain high level of shareholder returns

Since our IPO, we have maintained a policy of pursuing both growth and a high level of shareholder returns. Our approach remains the same and we plan to continue maintaining a high level of returns. For FY2023, we plan to pay a dividend per share of ¥86, the same as in the previous fiscal year. We have not yet decided on dividends for FY2024 and beyond, but will make a decision after taking into account investor expectations. Looking back at our track record, we have paid high dividends while simultaneously making a variety of investments for future growth. We have invested a large amount of money thus far to incorporate Yahoo Japan, LINE, PayPay, and others into the Group and diversify our business portfolio. At the same time, we have been executing major capital expenditures for rolling out 5G. Going forward, there will be more opportunities for various growth investments, such as those related to generative



AI, and we intend to maintain a balance between growth investments and shareholder returns.

We tend to be evaluated solely on the basis of dividend yield, but we believe that total shareholder return (TSR), which includes share price as well as dividends, is more important in demonstrating the balance between growth and shareholder returns resulting from our management efforts. Therefore, a portion of our officer remuneration incorporates medium-term performance-based remuneration, and we use TSR as the performance indicator (P56).

Capital allocation

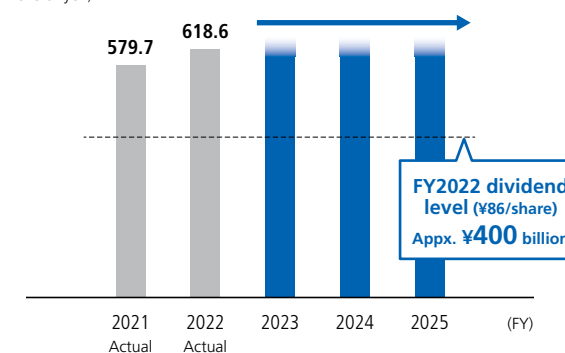
Approach to adjusted free cash flow

We believe that appropriate capital allocation is extremely important to achieve both growth and high shareholder returns. We use adjusted free cash flow (FCF), which is operating cash flow minus capital expenditures and growth investments, as the starting point for all financial targets in our planning. With regard to our capital expenditure plan, the intensive investment for accelerating 5G rollout implemented in FY2022 has run its course, and we intend to control

expenditures by focusing on investments that are necessary, such as expanding spot capacity in response to traffic levels. As a result, we expect capital expenditures to come to ¥330 billion per year from FY2023 onward, a substantial drop from the FY2022 amount of ¥407.5 billion. On the other hand, with regard to the use of adjusted FCF, we will examine what is best for the Company, paying out shareholder returns as well as improving our financial position.

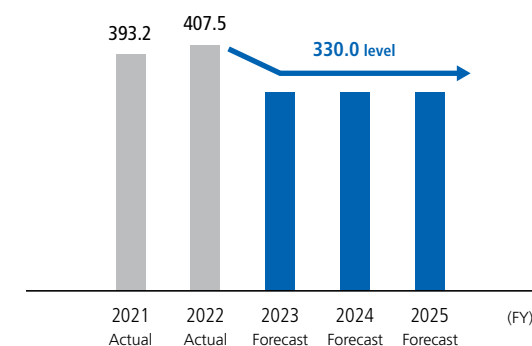
Adjusted free cash flow

(Billions of yen)



Capital expenditures (Consumer segment/Enterprise segment)

(Billions of yen)



Message from the CFO

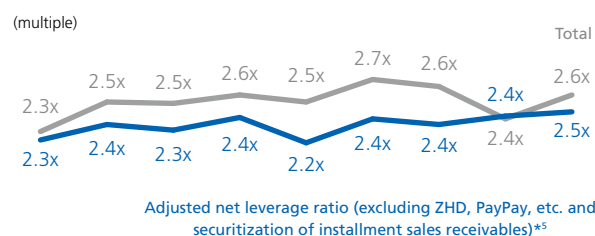
Financial strategy

Status of balance sheet

We currently have long-term issuer ratings of A+ and AA– with Rating and Investment Information, Inc. (R&I) and Japan Credit Rating Agency, Ltd. (JCR), respectively. We will continue to maintain this high rating while preserving both our earnings capacity and financial soundness. In monitoring financial soundness, we emphasize net leverage ratio (NLR) as an important indicator. This is the ratio of net interest-bearing debt to adjusted EBITDA. Financial discipline is critical to maintaining our ratings, and we aim to maintain or reduce NLR in the mid-2x range while growing EBITDA over the medium term. However, if we come across a project with high return potential, we will take into account the profitability and certainty of the project and may decide to take on the challenge in the interests of medium- to long-term growth, even if our NLR temporarily rises.

On a related note, we have taken whatever means of funding we deemed best at any given time. Prior to going public, we had to rely heavily on indirect financing such as bank loans.

Net leverage ratio*4



Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
FY 2020	FY2021				FY2022			

*4 Net leverage ratio = net interest-bearing debt / adjusted EBITDA (last 12 months for the relevant quarter)

*5 "Excluding Z Holdings and PayPay, etc., and securitization of installment sales receivables" refers to exclusion of net interest-bearing debt and adjusted EBITDA of A Holdings Corporation, Z Holdings Corporation and its subsidiaries, B Holdings Corporation, PayPay Corporation, and PayPay Card Corporation, interest-bearing debt of securitization of installment sales receivables, and cash reserve for securitization of sales receivables

However, after going public, we were able to diversify our financing methods to include corporate bonds, and by increasing the ratio of direct financing, we have been able to stabilize our financial base and reduce our financing costs. At the same time, we would like to improve our equity ratio as well, even if only gradually, and as a new financing measure, we have amended our Articles of Incorporation to issue a so-called Bond-type class shares, which has no voting rights and can not be converted to common shares. This method allows us to expand shareholders' equity without diluting our common stock, and we believe it is an effective method of financing going forward.

Approach to cost of equity and growth investments

As a basic policy, when we execute investments, we use the internal rate of return (IRR) as the hurdle rate. Since we make full use of debt, our weighted average cost of capital (WACC) is at about 5%. When making actual investment decisions, we look for investment returns commensurate with business risks far in excess of our WACC. In calculating the IRR, the Corporate Planning Division, which I head, carefully examines the business plan from the business unit, takes into consideration multiple risk scenarios, and calculates the IRR based on approximately five years of cash flow and terminal value. After the investment is executed, we dispatch Board Directors and Audit & Supervisory Board Members when necessary and monitor the business quarterly to check the progress against the approved business plan and take necessary measures.

The CFO's role

A compass that navigates the company onto a growth trajectory

I believe that the primary role of the CFO is to measure what comes in and control what goes out. In other words, you must reliably anticipate revenues and keep costs in line with your

budgets. I believe that the basic principle of any business is to first generate proper cash flow through solid operations. There is a widely known saying, "accounting profit is an opinion, but cash is a fact," and I agree with this saying. I believe that having cash support is a very important factor no matter what you do, including for shareholder returns and growth investments. Even when remaining focused on cash, when a great opportunity presents itself, you must seize it, even if it means taking on debt. Accordingly, I believe that the CFO's most important role as a compass is to navigate the company onto a growth trajectory by carefully setting cash flow and other financial targets and controlling the cash by knowing when to speed things up or slow things down.

Furthermore, I personally believe it is crucial to face change in a future-oriented manner. Thinking about this from the standpoint of the Finance Division, I think there are three key points: Analyze change as the accumulation of differences, shorten the clock cycle by revising forecasts frequently, and looking further ahead when in doubt. Going forward, if we make good use of generative AI, we will be able to quickly analyze changes, significantly reduce the time required for financial analysis, and shorten the clock cycle by making monthly forecast revisions into weekly or daily revisions. However, even with these changes, it is still important to look far ahead when in doubt. I intend to serve as a compass, keeping my eyes firmly fixed on the distant future, while becoming more sensitive to change and making revisions more frequently than ever, so that we can safely sail toward our vision for 2030 and beyond.

Technology Strategy

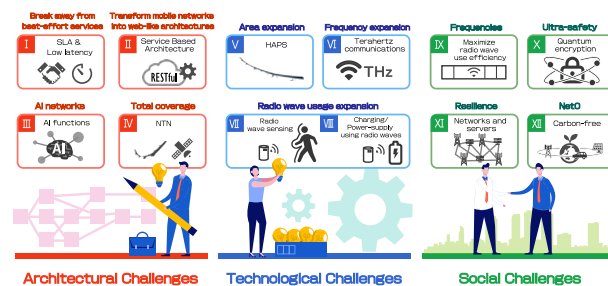
Focusing on creating “AI networks” to become the cornerstone of next-generation social infrastructure

The 12 Challenges aimed at achieving Beyond 5G/6G

We have been working on developing technologies to build the world’s most advanced telecommunications network. In addition to the telecommunication-related technologies we have developed over the years, our current technology strategy revolve around the development of big data and AI-related technologies.

Recently, telecommunication carriers have been focusing on expanding 5G, but we expect a shift to Beyond 5G/6G over the medium to long term. With Beyond 5G/6G, in addition to further advancing 5G’s features (ultra-high speed, large capacity, ultra-low latency, and massive machine connections), we expect to see new technological innovations, such as improved reliability and energy efficiency.

To achieve this, we are working on the following themes in the three areas of architecture, technology, and society, which we have designated as our “12 Challenges.”



Focus on AI networks

Of the “12 Challenges” mentioned above, we are particularly committed to creating “AI-RAN,” which is an AI network.

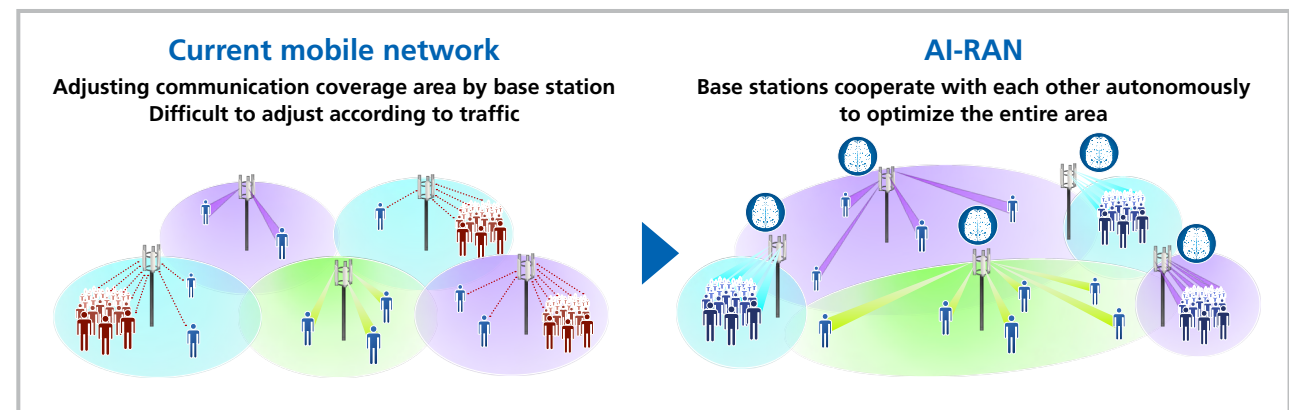
“AI-RAN” is a radio access network (RAN*) consisting of antenna equipment and base stations equipped with AI. With the current RAN, which is not equipped with AI, the communication coverage area is adjusted at each base station, resulting in unbalanced frequency and power usage when there is a sudden increase in traffic in the coverage area. As a result, we face issues such as lower communication quality in certain areas and lower power consumption efficiency. With “AI-RAN,” AIs at adjacent base stations can cooperate with one other autonomously, which enables efficient airwave use and provides the best possible communication environment at any given time. Furthermore, the ability to flexibly share computing resources among base stations will help substantially reduce power consumption.

To achieve this, we need a framework that enables parallel execution of complex AI processes. Conventional CPU-based

dedicated communication devices, which excel at high-speed sequential processing, are unable to perform this type of processing. In addition, using dedicated communication devices also creates challenges in terms of scalability for flexibly responding to the enormous demand for computing and processing.

To solve this issue, we will utilize GPU-vRAN (virtual RAN), a virtual base station that uses GPUs*2. vRAN is a software-based system that provides the functions of a conventional base station and runs on a relatively inexpensive general-purpose server, allowing it to function in the same way as dedicated communications devices while ensuring scalability. Furthermore, its general-purpose servers will be equipped with GPUs capable of executing complex parallel AI processing.

Based on this approach, we are conducting research and development to bring “AI-RAN” to fruition.



*1 RAN: Abbreviation for Radio Access Network. Consists of transmission lines and line control equipment, as well as antenna equipment and base stations

*2 GPU: Abbreviation for Graphics Processing Unit. Semiconductor that was previously used for image analysis and other processing, taking advantage of its parallel processing capabilities, but is now also being used for AI computing

Technology Strategy



Focusing on creating “AI networks” to become the cornerstone of next-generation social infrastructure

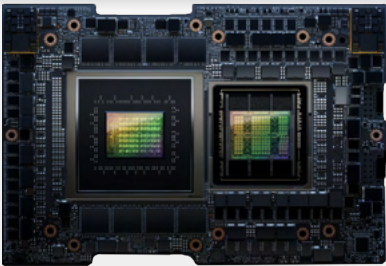
Close collaboration with US-based NVIDIA in anticipation of the convergence of AI and telecommunications

To bring “AI-RAN” to fruition, we have been working closely with NVIDIA, a leading GPU developer in the US. For example, in 2019, when US-based NVIDIA announced *NVIDIA Aerial*, a software development kit that enables its GPUs to be utilized for vRAN, we collaborated with NVIDIA to verify the technology. In 2021, we jointly opened the research facility “AI-on-5G Lab.” with the company to jointly develop a fully virtualized Private 5G commercialization.

Then, in May 2023, we announced our collaboration in building a next-generation platform for generative AI and 5G/6G with NVIDIA. By incorporating their state-of-the-art superchip, the *Grace Hopper Superchip*, into our cellular base stations, we will be able to bring “AI-RAN” to fruition. Furthermore, in addition to using the memory of this state-of-the-art chip for 5G/6G communications, we will also dynamically allocate available resources for generative AI processing.

Introducing state-of-the-art superchips in our base stations



Large-scale AI processing

Low power consumption (efficient design)

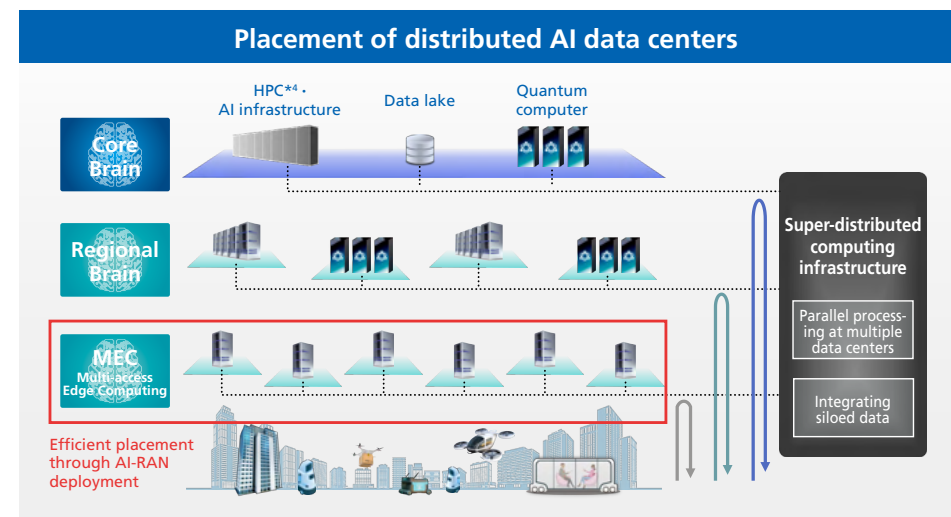
NVIDIA GH200 Grace Hopper Superchip

“AI-RAN” is an essential part of next-generation social infrastructure

“AI-RAN” is an essential part of building distributed AI data centers (P22) as we create next-generation social infrastructure.

As shown in the figure below, distributed AI data centers are divided into the three tiers of “Core Brain” (data center where large-scale AI infrastructure and quantum computers operate) “Regional Brain” (regional computing infrastructure) and MEC*³ (computing infrastructure located near devices that require real-time processing, such as autonomous driving and robotics), and deploying “AI-RAN” will mainly help with efficiently deploying MEC. This is because GPUs in GPU-vRAN, virtualized base stations aimed at implementing “AI-RAN,” are not only used for parallel computing processes for “AI-RAN,” but can also be shared for MEC processing. Since there is no need to set up separate servers for vRAN and MEC, capital expenditures and server locations can be streamlined.

Through deploying “AI-RAN,” we plan to use AI to further advance our telecommunications business, while also making it a cornerstone for building next-generation social infrastructure.



*³ MEC: Abbreviation for Multi-access Edge Computing. Technology that can speed up data processing responses and optimize and accelerate communications by distributing and placing servers near communication devices such as smartphones and IoT devices

*⁴ HPC: High Performance Computing