Briefing on Results for First 2 Quarters of Fiscal 2019 (Year Ending March 31, 2019)

November 16, 2019

ZENRIN Co., Ltd.

Maps to the Future

President and CEO	Zenshi Takayama
Executive Vice President	Junya Amita
Executive Officer, and Head of Corporate Management Division	Yumiko Toshima

Table of Contents

Note: This document contains forward-looking statements based on assumptions, forecasts and plans in light of information available to ZENRIN Co., Ltd. as of the preparation date of this document. Actual performance may vary significantly from the forecast figures due to various risks and uncertainties owing to global economic trends, market demand, status of competition, exchange fluctuations and other factors.

The information that appears in this document rounds down fractions to the nearest specified unit and rounds off decimals in the percentage of change to the first decimal place.

In addition, cases where the percentage of change exceeds 1000% and cases where one or both of the items of comparison are negative are shown as "–."

1. Overview of Results for First 2 Quarters of Fiscal 2019

1) Overview of Results

2) Causes for Change in Operating Income

3) Changes in Net Sales, Income and Profit

4) Net Sales by Business under Medium- to Long-Term Business Plan ZGP2020

5) Segment Information

6) Changes in Cash Flows

1-1) Overview of Results

Key Points of Results for First 2 Quarters of Fiscal 2019

Compared to First 2 Quarters of Fiscal 2018 <increase in sales and income>
■ Sales of data for Japanese in-car navigation systems and sales of residential map data to corporate and local government customers were strong
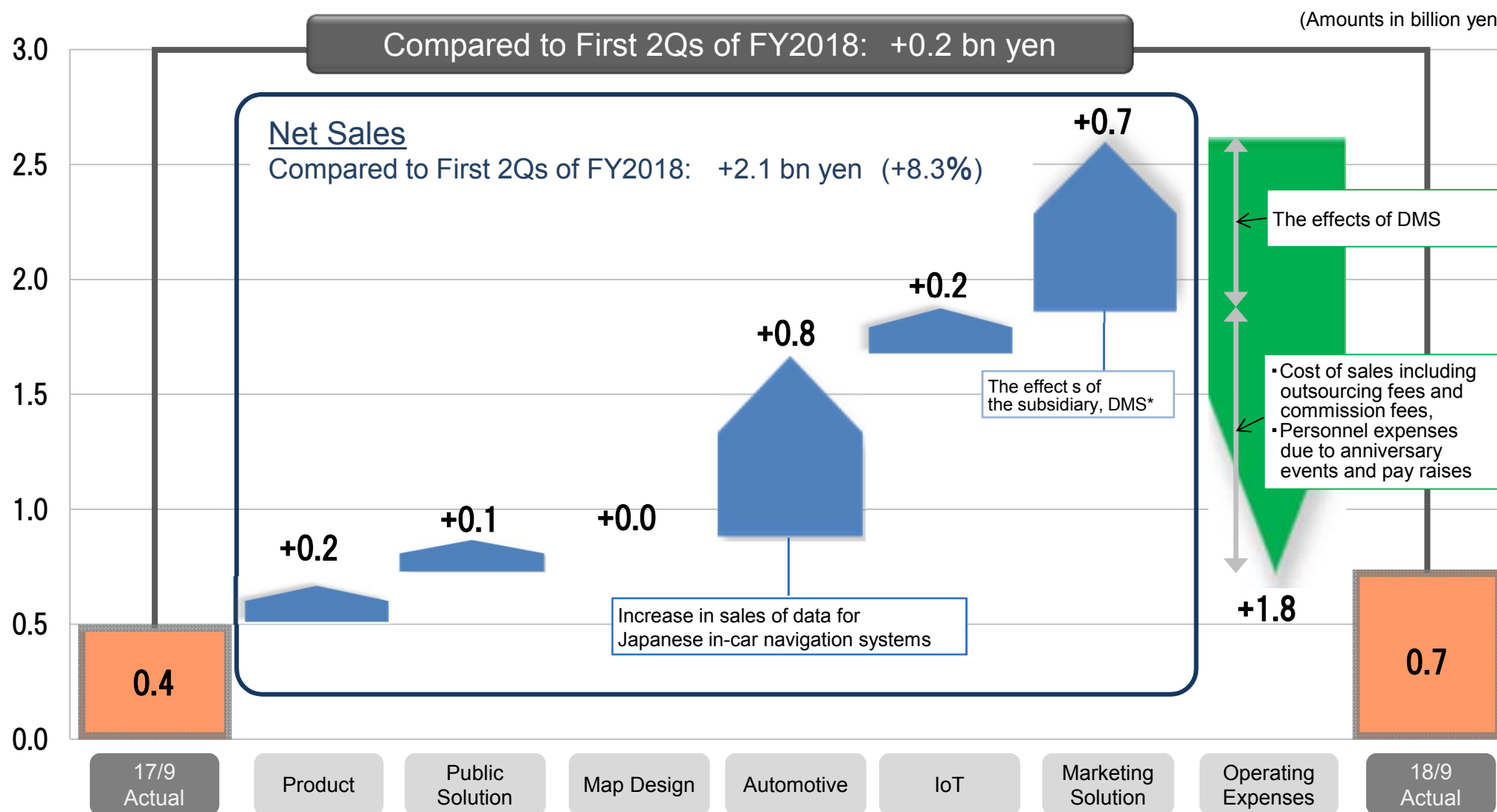
Compared to Earnings Forecast < increase in sales and income >
■ Net sales increased also due to the impact of changes in the reporting period (e.g. reporting moved up from the latter half)
■ Despite the increase in cost of sales including outsourcing fees and commission fees in conjunction with increased revenues, profits were secured due to the effects of the increased revenues

(Amounts in million yen)

	First 2Qs of FY2018 Actual	First 2Qs of FY2019 Earnings Forecast (Apr. 27)	First 2Qs of FY2019 Revised Forecast (Oct. 22)	First 2Qs of FY2019 Actual	Compared to First 2Qs of FY2018	% of Change	Compared to Earnings Forecast (Apr. 27)	% of Change	Compared to Revised Forecast (Oct. 22)	% of Change
Net Sales	26,016	27,000	28,100	28,168	2,151	8.3	1,168	4.3	68	0.2
Operating Expenses	25,546	27,000	27,370	27,429	1,883	7.4	429	1.6	59	0.2
Operating Income Operating Margin	470 1.8%	0 —	730 2.6%	738 2.6%	268 0.8pt	57.0	738 2.6pt	—	8 0.0pt	1.2
Ordinary Income	725	0	970	977	252	34.8	977	—	7	0.8
Profit Attributable to Owners of Parent	213	0	580	587	373	175.3	587	—	7	1.3

*No substantial change from the revised earnings forecast figures announced on October 22.
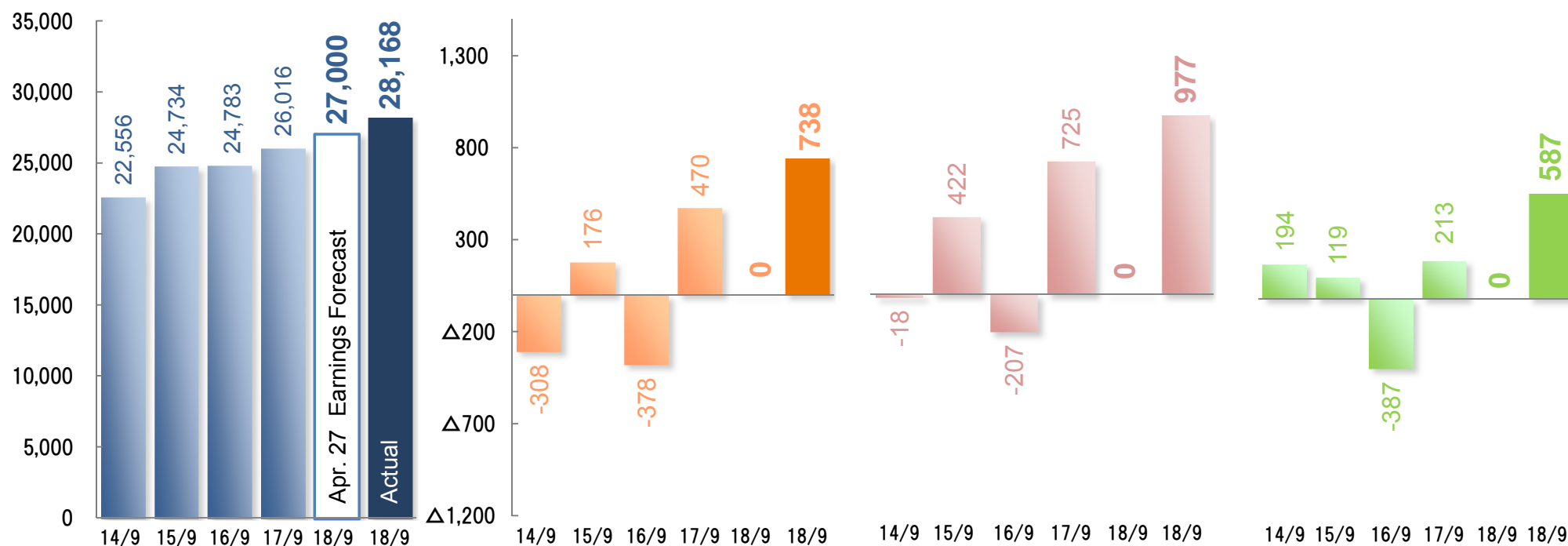
1-2) Causes for Change in Operating Income

ZENRIN
Maps to the Future
Briefing on Results for First 2Qs of FY2019

(Amounts in billion yen)

Compared to First 2Qs of FY2018: +0.2 bn yen

Net Sales
Compared to First 2Qs of FY2018: +2.1 bn yen (+8.3%)

+0.7

+0.2

+0.8

+0.1

+0.2

+0.0

The effects of DMS

The effects of the subsidiary, DMS*

Increase in sales of data for Japanese in-car navigation systems

・Cost of sales including outsourcing fees and commission fees,
・Personnel expenses due to anniversary events and pay raises

+1.8

0.4

0.7

17/9 Actual	Product	Public Solution	Map Design	Automotive	IoT	Marketing Solution	Operating Expenses	18/9 Actual

*DMS：DAITO MARKETING SOLUTIONS CO., LTD.

ZENRIN Maps to the Future

Briefing on Results for First 2Qs of FY2019

(Amounts in million yen)

	Net Sales	Operating Income	Ordinary Income	Profit Attributable to Owners of Parent
Compared to First 2Qs of FY2018	Up 2,151 (+8.3%)	Up 268 (+57.0%)	Up 252 (+34.8%)	Up 373 (+175.3%)
Compared to Earnings Forecast (announced on Apr. 27)	Up 1,168 (+4.3%)	Up 738 (—)	Up 977 (—)	Up 587 (—)

Net Sales (14/9–18/9): 22,556 / 24,734 / 24,783 / 26,016 / 27,000 (Apr. 27 Earnings Forecast) / 28,168 (Actual)

Operating Income (14/9–18/9): -308 / 176 / -378 / 470 / 0 / 738

Ordinary Income (14/9–18/9): -18 / 422 / -207 / 725 / 0 / 977

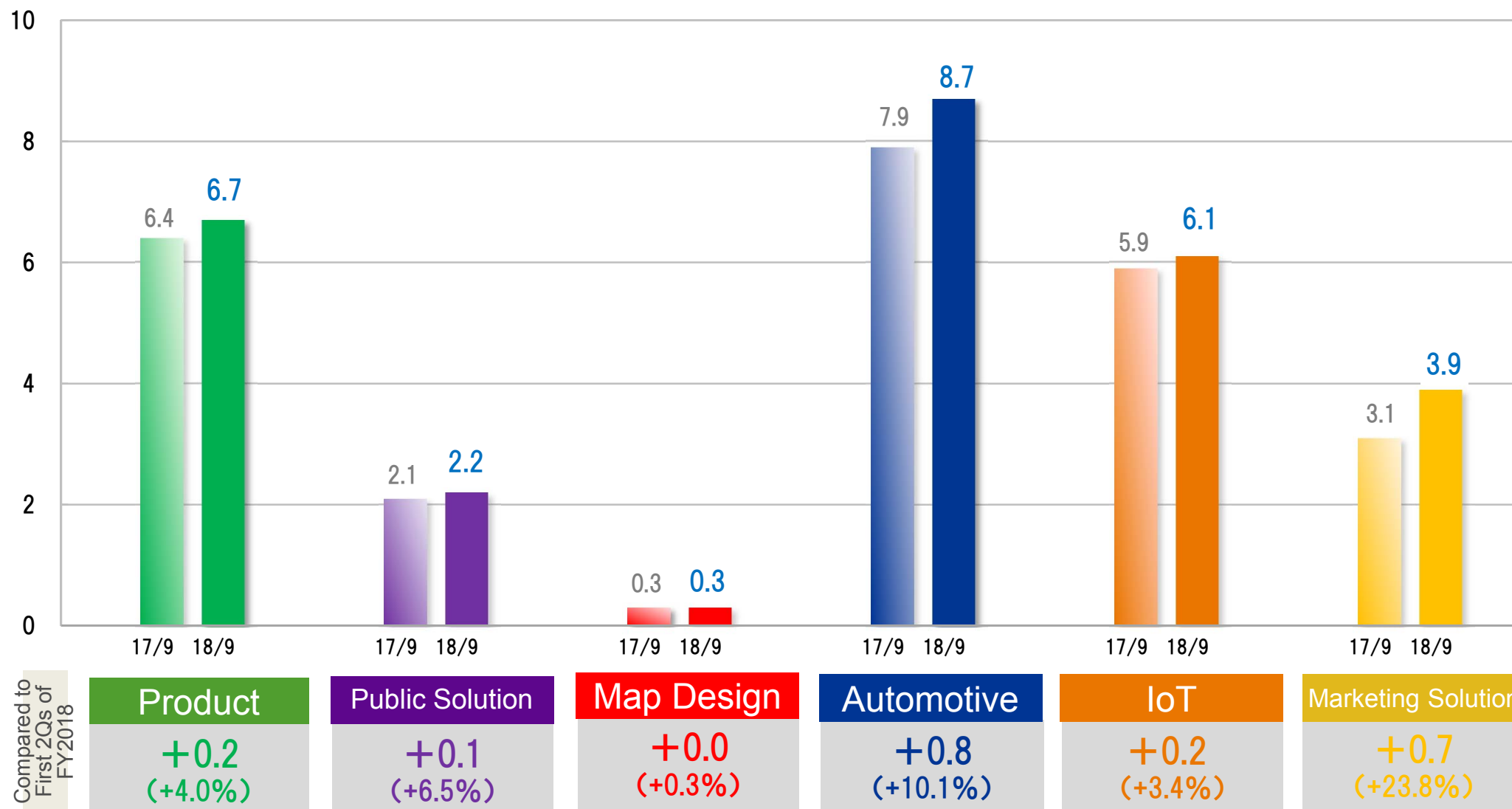**Profit Attributable to Owners of Parent (14/9–18/9):** 194 / 119 / -387 / 213 / 0 / 587

Increase in sales for 4 consecutive periods (Record high)

Increase in income for 2 consecutive periods

*No substantial change from the revised earnings forecast figures announced on October 22.

1-4) Net Sales by Business under ZGP2020

Briefing on Results for First 2Qs of FY2019

(Amounts in billion yen)

Compared to First 2Qs of FY2018	Product	Public Solution	Map Design	Automotive	IoT	Marketing Solution
	+0.2 (+4.0%)	+0.1 (+6.5%)	+0.0 (+0.3%)	+0.8 (+10.1%)	+0.2 (+3.4%)	+0.7 (+23.8%)

*Data for fiscal 2017 are reclassified from the previous business composition.

1-5) Segment Information

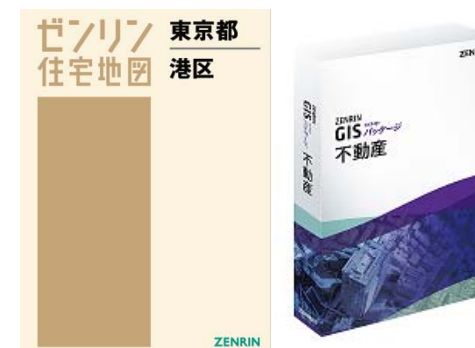ZENRIN
Maps to the Future

Briefing on Results for First 2Qs of FY2019

Sales
Composition

81.5%

1. Map Database Segment

Main Items: Printed residential maps,
residential map databases,
map data for Japanese and overseas
in-car navigation systems,
services for smartphones,
map data provision, etc. for various media/devices

6.8%

2. General Printing Segment

Main Items: Commercial printing

11.7%

3. Other

Main Items: Purchased products,
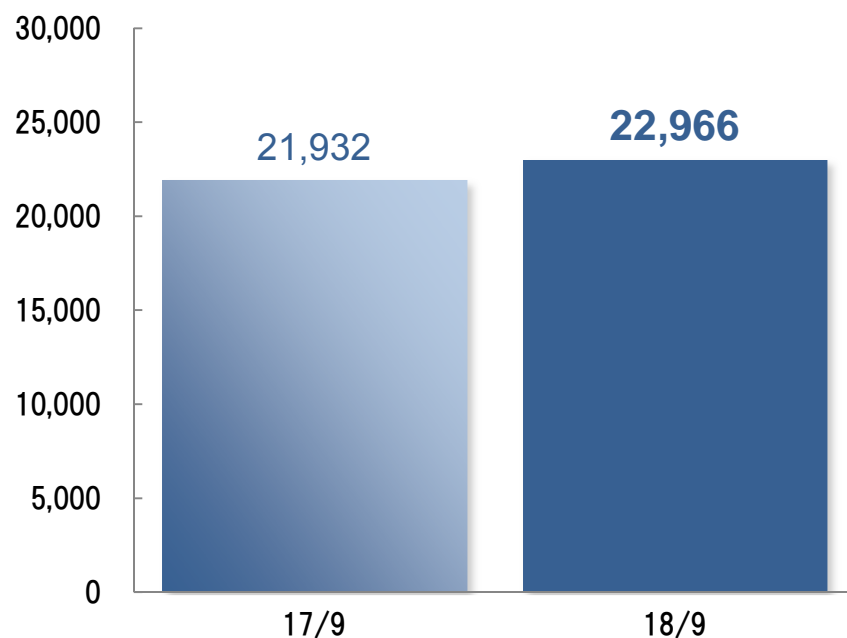digital signage,
provision of Marketing Solution

© ZENRIN CO., LTD. All Rights Reserved.

8

1-5) Map Database Segment

(Amounts in million yen)

Net Sales

Compared to First
2Qs of FY2018

Up 1,034 (+4.7%)

- 21,932 (17/9)
- **22,966** (18/9)

Operating Income

Up 247 (+57.3%)
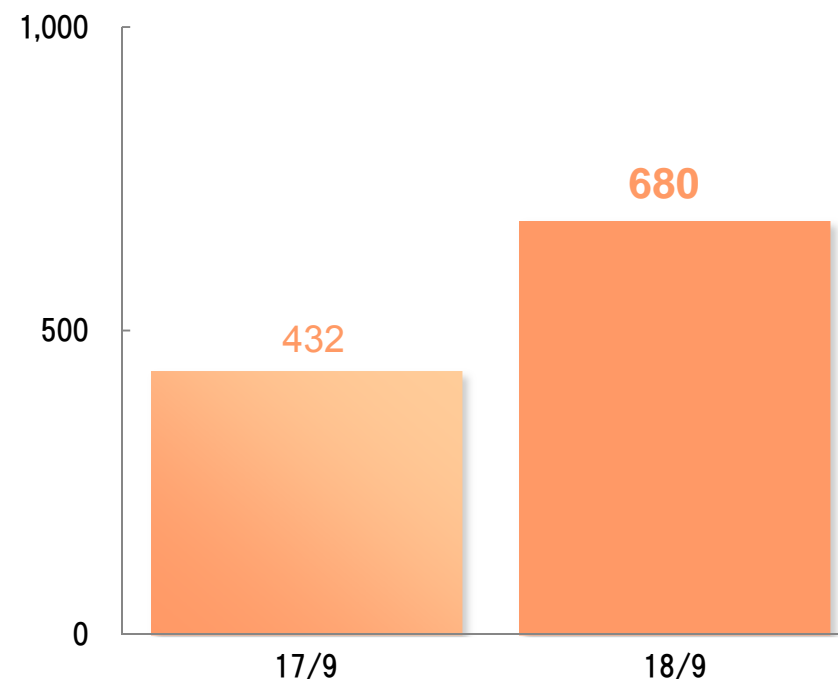
- 432 (17/9)
- **680** (18/9)

■Sales of data for Japanese in-car navigation systems and sales of residential map data to corporate and local government customers were strong

■Despite the increase in cost of sales including outsourcing fees and commission fees in conjunction with increased revenues, profits were secured due to the effects of the increased revenues
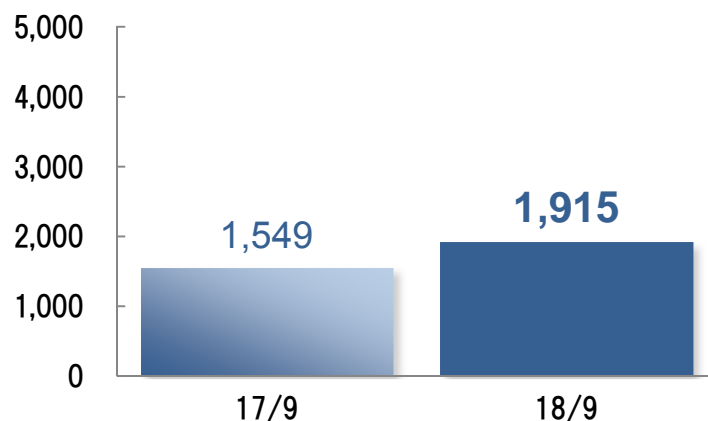
1-5) General Printing Segment, and Other
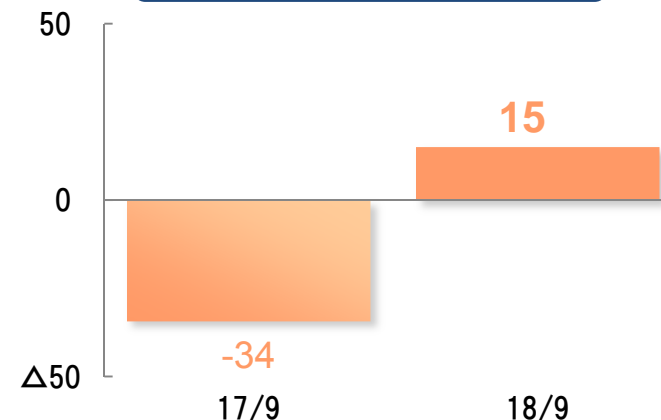
(Amounts in million yen)

General Printing Segment

Net Sales

Compared to First 2Q of FY2018

Up 366 (+23.7%)

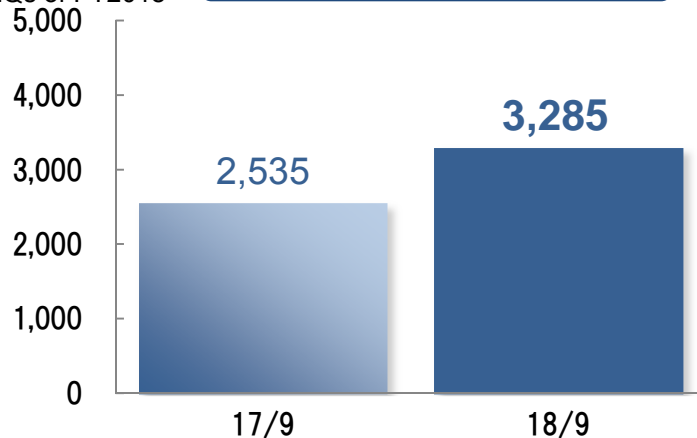- 1,549 — 17/9
- 1,915 — 18/9

Operating Income

Improved 49 (—)

- -34 — 17/9
- 15 — 18/9

Other

Net Sales

Compared to First 2Qs of FY2018

Up 750 (+29.6%)

- 2,535 — 17/9
- 3,285 — 18/9

Operating Income

Down 31 (-91.0%)

- 34 — 17/9
- 3 — 18/9
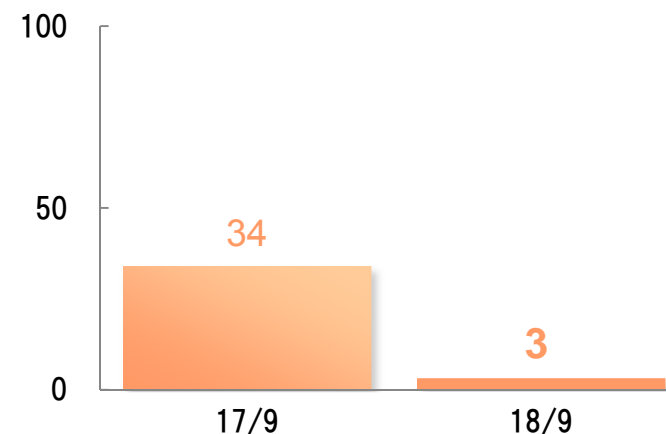
■The main cause for the increase in sales in the General Printing and Other segments was the effects of DMS, a newly consolidated subsidiary from the 3rd quarter of the previous fiscal year

1-6) Changes in Cash Flows

(Amounts in million yen)

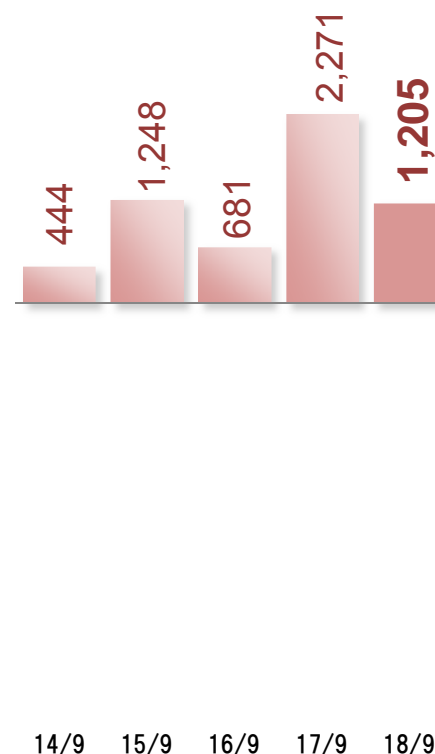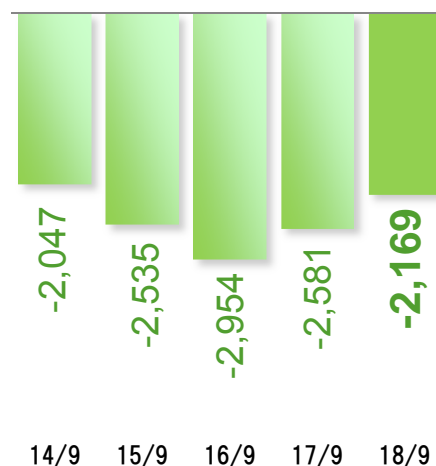## Operating Cash Flows | Investing Cash Flows | Free Cash Flows | Financing Cash Flows

Compared to First 2Qs of FY2018

| Inflows down 1,478 | Outflows down 412 | Inflows down 1,065 | Outflows Up 673 |

Operating Cash Flows

- 14/9: 2,492
- 15/9: 3,784
- 16/9: 3,636
- 17/9: 4,852
- 18/9: 3,374

Operating cash flows decreased year-on-year due to increases in notes and accounts payable-trade and inventories

Investing Cash Flows

- 14/9: -2,047
- 15/9: -2,535
- 16/9: -2,954
- 17/9: -2,581
- 18/9: -2,169

Free Cash Flows

- 14/9: 444
- 15/9: 1,248
- 16/9: 681
- 17/9: 2,271
- 18/9: 1,205

Financing Cash Flows

- 14/9: -2,459
- 15/9: -3,172
- 16/9: -908
- 17/9: -2,008
- 18/9: -2,681
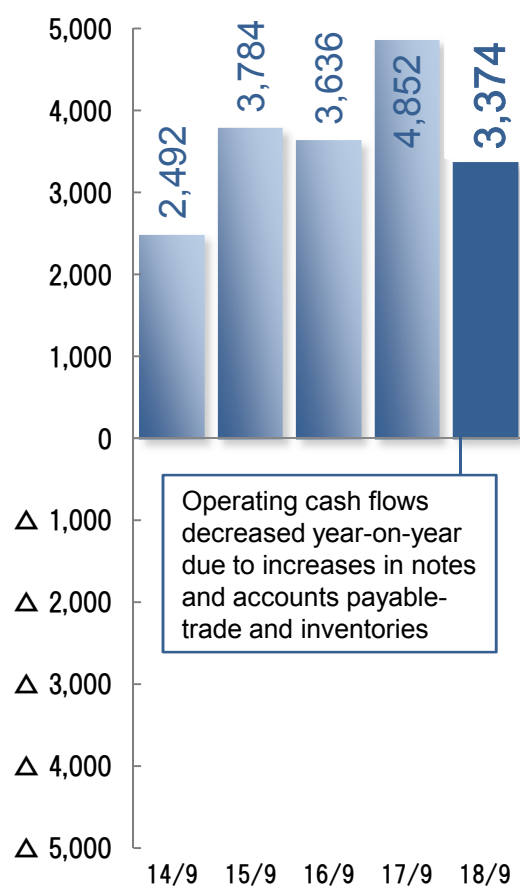
Free cash flows	1,205
Financing cash flows	-2,681
Effect of exchange rate	-10
Net decrease in cash and cash equivalents	-1,486
Cash and cash equivalents at beginning of period	11,542
Cash and cash equivalents at end of period	10,055
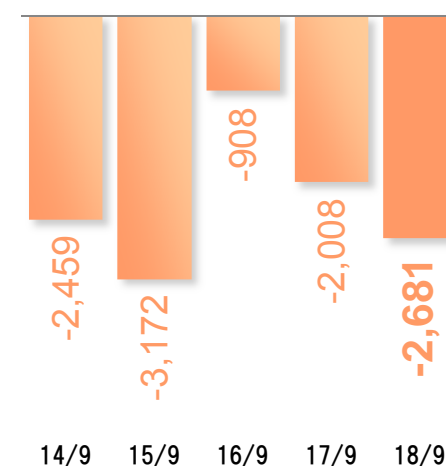
2. Earnings Forecast for Fiscal 2019

1) Overview of Earnings Forecast for Fiscal 2019
   (No change from the figures announced on April 27)

2) Dividends

2-1) Overview of Earnings Forecast for Fiscal 2019

Earnings Forecast for Fiscal 2019

The earnings forecast for fiscal 2019 is left unchanged from that announced on April 27, 2018 for now.

Compared to Fiscal 2018 <increase in sales and income>
Re-organization of business strategy based on the new business composition with an eye on the next medium-to long-term business plan

■ Securing of earnings from existing businesses
■ Earnings of revenue from new business domains such as ADAS, IoT and Map Design Business
■ Stable operation of Zenrin Integrated Geospatial System and product development

(Amounts in million yen)

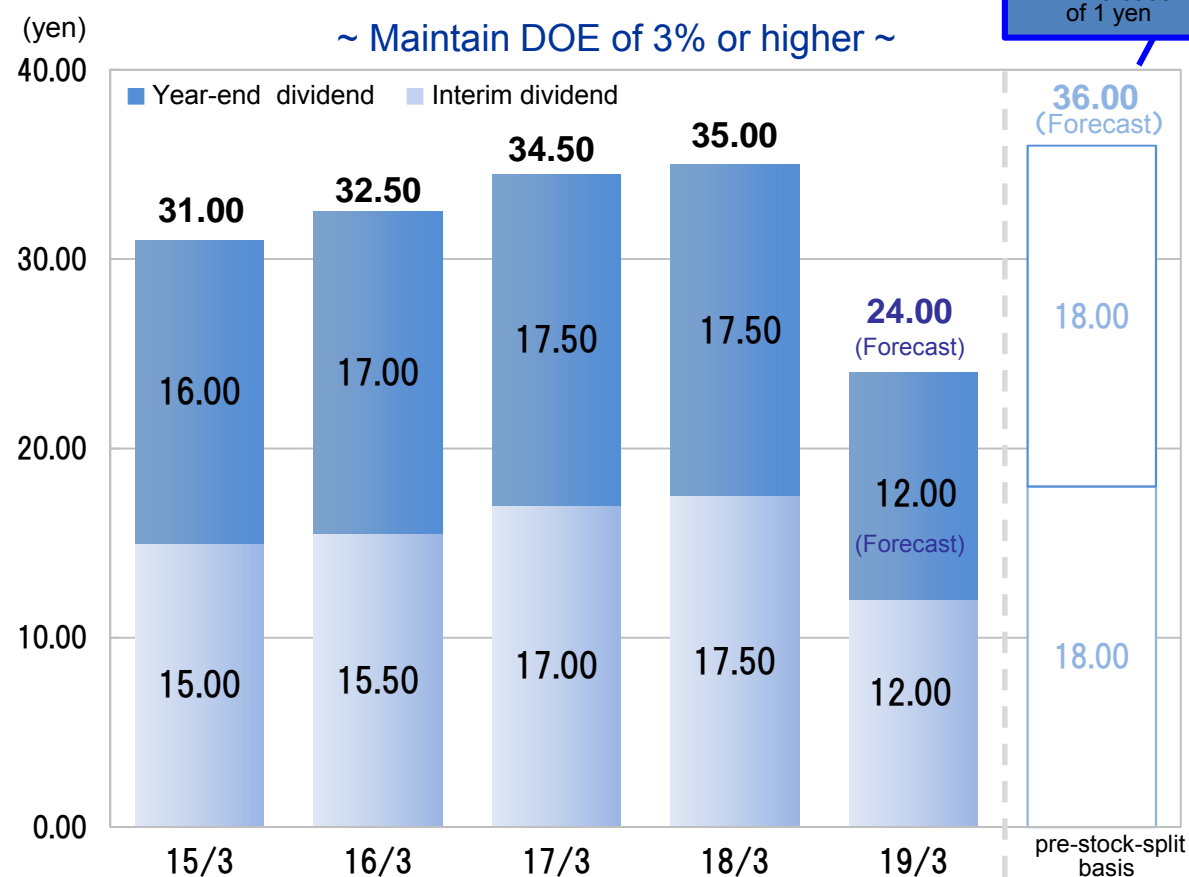|	FY2018 Actual	FY2019 Forecast	Compared to FY2018	% of Change
Net Sales	61,332	64,000	2,667	4.3
Operating Expenses	55,890	58,200	2,309	4.1
Operating Income Operating Margin	5,441 8.9%	5,800 9.1%	358 0.2pt	6.6
Ordinary Income	5,863	6,200	336	5.7
Profit Attributable to Owners of Parent	3,336	3,700	363	10.9

2-2) Dividends

Basic Policy	Return income to shareholders derived from income growth based on the medium- to long-term business plan, while taking into account maintaining an adequate amount of internal reserves
	Target dividend on equity (DOE) on a consolidated basis of 3% or higher

An increase of 1 yen

(yen)

~ Maintain DOE of 3% or higher ~

FY2019 Dividend (pre-stock-split basis)*	
Interim	12.00 yen (18.00 yen)
Year-end (Forecast)	12.00 yen (18.00 yen)
Annual (Forecast)	24.00 yen (36.00 yen)

* Effective April 1,2018, the Company conducted a stock split. Each share of common stock was split into 1.5 shares.

- Year-end dividend
- Interim dividend

|	15/3	16/3	17/3	18/3	19/3	pre-stock-split basis
Total	31.00	32.50	34.50	35.00	24.00 (Forecast)	36.00 (Forecast)
Year-end	16.00	17.00	17.50	17.50	12.00 (Forecast)	18.00
Interim	15.00	15.50	17.00	17.50	12.00	18.00

3. Business Overview

1) Net Sales by Business under Medium- to Long-Term Business Plan ZGP2020

2) ZGP2020 Business Strategy
   ‣ Net sales by Business (Actual/Forecast/ ZGP2020 Targets) and Primary Initiatives

3-1) Net Sales by Business under ZGP2020

ZENRIN
Maps to the Future

(Amounts in billion yen)
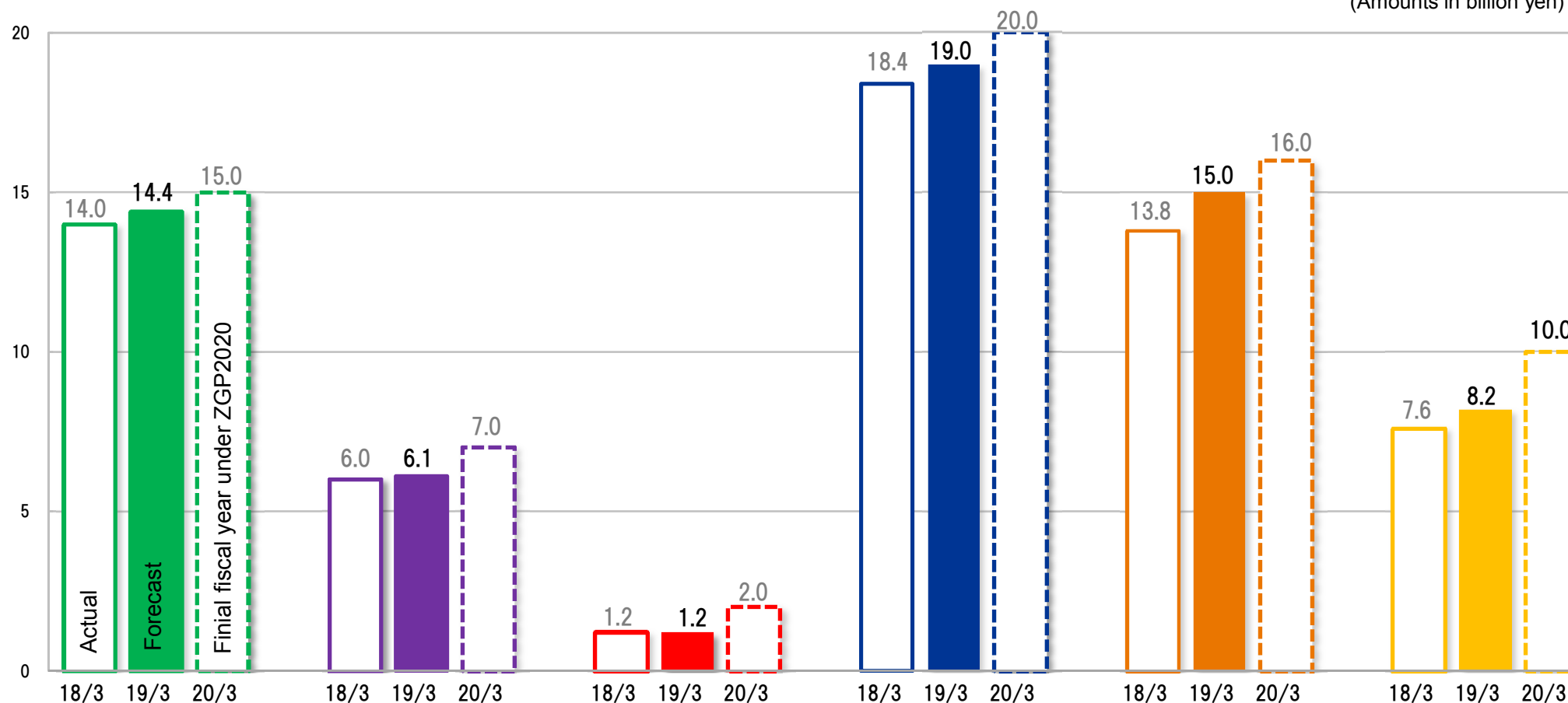
18/3 ↓ 19/3	Product	Public Solution	Map Design	Automotive	IoT	Marketing Solution
	+0.3 (+2.4%)	+0.0 (+0.1%)	+0.0 (+2.7%)	+0.5 (+3.2%)	+1.1 (+8.2%)	+0.5 (+7.3%)

*Data for fiscal 2018 (outlined bar graph) and fiscal 2020 (final fiscal year under ZGP2020) are reclassified from the previous business composition.

3-2) ZGP2020 Business Strategy

【Product Business】 Enhancement of value of residential map databases through a product-oriented approach

・ Offer products and services that increase operating efficiency and meet the purpose of consumers who mainly use products relating to residential maps
・ Secure the stable revenue foundation by using existing data

Priority measures

・ Release new products through development of applications
・ Secure stable revenue through expansion of stock-type products

GIS Package Changes in Net Sales

Provided services to such industries as real estate and construction and to professionals, as well as providing sales support services.

14/3 15/3 16/3 17/3 18/3 19/3 (Forecast)

0.3 ... 2.2

(Amounts in billion yen)
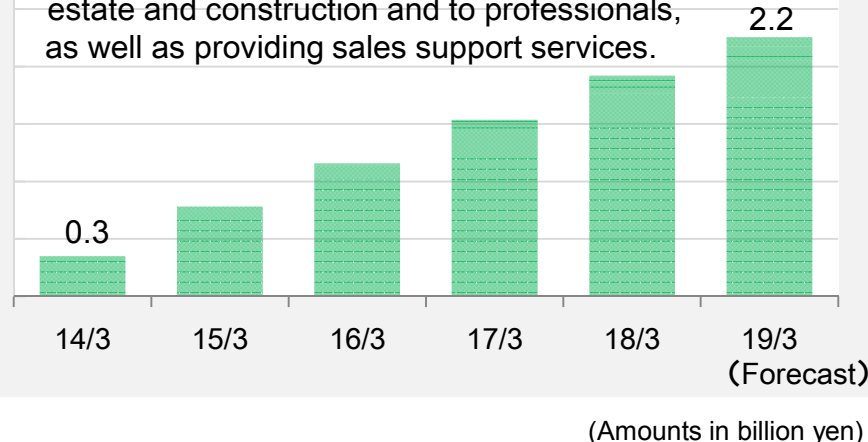
< Second Quarter Progress >
Sales from the distribution of residential map data and GIS packages remained strong
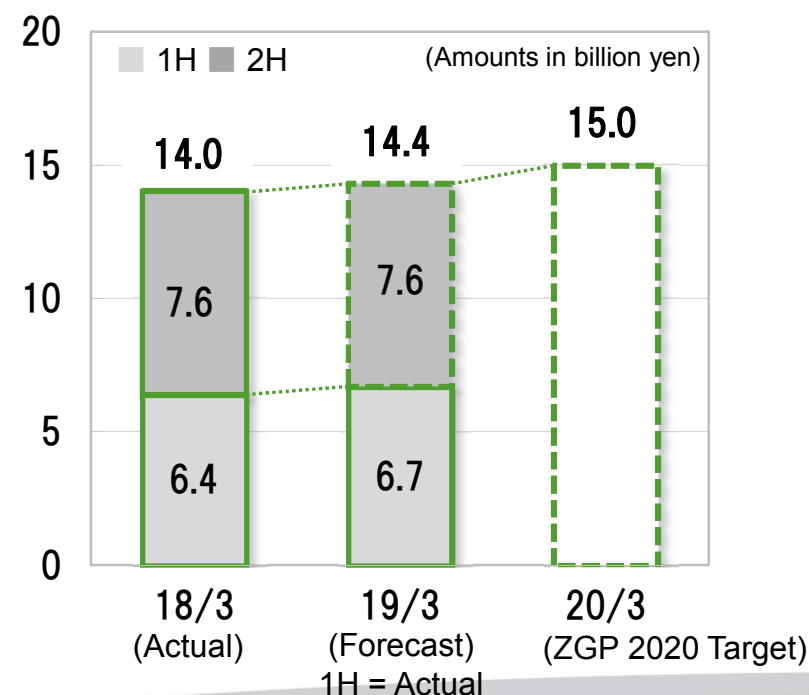
(Amounts in billion yen)
■ 1H ■ 2H

	18/3 (Actual)	19/3 (Forecast)	20/3 (ZGP 2020 Target)
Total	14.0	14.4	15.0
2H	7.6	7.6	
1H	6.4	6.7	

1H = Actual

*Data for fiscal and fiscal 2020 are reclassified from the previous business composition.

3-2) ZGP2020 Business Strategy

【Public Solution Business】 Increase of revenue by offering products and services for central government ministries/agencies and local governments

・Offer products and services that support work of central government ministries/agencies and local governments
・Expand sales through establishment of local government platform

Priority measures

Establish a dedicated platform
that is specialized in local government work

< Second Quarter Progress >
Sales of residential map data increased

"ZENRIN Residential Map LGWAN" for local governments

Residential map services that support LGWAN
Monthly usage fees commensurate with the size of the population

Optional functions supporting each service

e.g.	Disaster prevention /mitigation measures	Security measures when commuting to and from school

Zenrin Local government support project
Concluded agreements for support at the time of disaster with 534 local governments
(As of October 31, 2018)
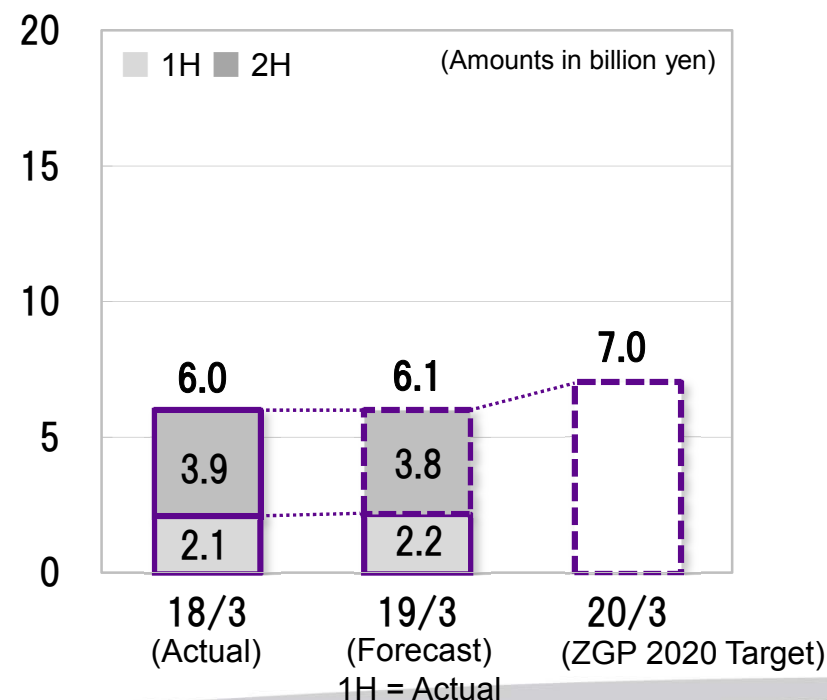
1H ■ 2H   (Amounts in billion yen)

	18/3 (Actual)	19/3 (Forecast)	20/3 (ZGP 2020 Target)
Total	6.0	6.1	7.0
1H	3.9	3.8	
2H	2.1	2.2	

1H = Actual

*Data for fiscal and fiscal 2020 are reclassified from the previous business composition.

3-2) ZGP2020 Business Strategy

【Map Design Business】 Establishment of business domains through embodiment of maps' potential value

Expand map products under a new concept to consumers that place an importance on emotional value as well as functional value

Priority measures

・Create new opportunities for use of maps through product development
・Generate extra revenue for a limited period with sports and cultural events

Map stationery "mati mati" line-up.
Total number of packages shipped: 100,000 (as of April 2018)
【15 ereas】
Sapporo, Sendai, Marunouchi, Omotesando, Kichijyoji, Yokohama, Kanazawa, Nagoya, Kyoto, Umeda, Nanba, Kobe, Hiroshima, Tenjin, Naha

Products utilizing map data bases Independent study kit for primary school social studies "Town Exploration Kit" is released

＜Second Quarter Progress＞
Mostly the same as the same period of the previous fiscal year
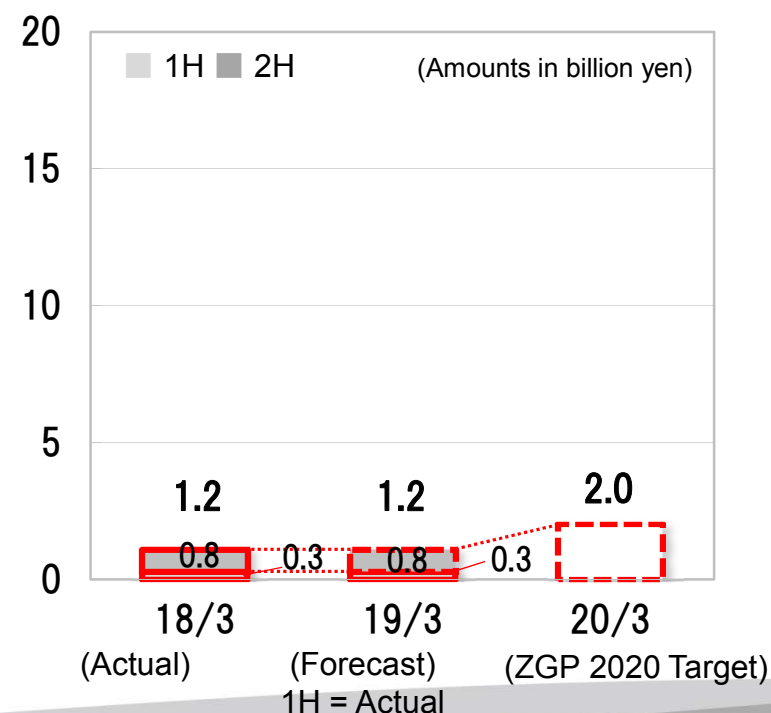
	18/3 (Actual)	19/3 (Forecast)	20/3 (ZGP 2020 Target)
Total	1.2	1.2	2.0
1H	0.8	0.8	
2H	0.3	0.3	

1H = Actual

(Amounts in billion yen) ■ 1H ■ 2H

*Data for fiscal and fiscal 2020 are reclassified from the previous business composition.

3-2) ZGP2020 Business Strategy

ZENRIN Maps to the Future

【Automotive Business 】 Stabilization of business related to Japanese and overseas in-car navigation and market creation of automated driving and ADAS business

・Secure stable revenue by maintaining and expanding share of map data for Japanese in-car navigation system
・Secure share in the new business in support of automated driving and ADAS and connectivity expansion

Priority measures

・Response to mass production in AD/ADAS business (expressways)
・Research and development in AD/ADAS business (ordinary roads)

Maintain and expand share of map data for Japanese in-car navigation system

Secure share in the new business in support of automated driving and ADAS and connectivity expansion

＜Second Quarter Progress＞
・Strong sales of data for Japanese in-car navigation systems
・Moved up the reporting of sales of certain commissioned projects and reported ADAS-related sales
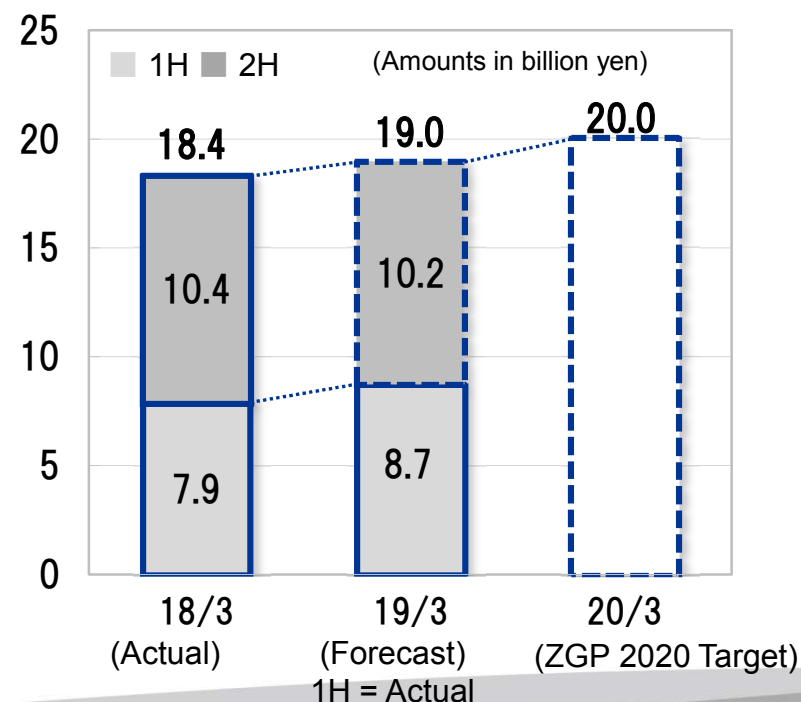
	1H	2H	(Amounts in billion yen)
18/3 (Actual)	7.9	10.4	18.4
19/3 (Forecast)	8.7	10.2	19.0
20/3 (ZGP 2020 Target)			20.0

1H = Actual

*Data for fiscal and fiscal 2020 are reclassified from the previous business composition.

3-2) ZGP2020 Business Strategy

ZENRIN
Maps to the Future
Briefing on Results for First 2Qs of FY2019

【IoT Business 】 Fusion between the location information business and IoT solution

Provide location information service solutions in collaboration with companies
that use big data collected through IoT

Priority measures

・Expand business in collaboration with companies(real estate, logistics, transport, infrastructure, service providers, etc.)
・Earn revenue in the drone business
・Create the MaaS business by using map technology for automated driving

R&D and demonstrations of the drone business
・We succeeded in the demonstrations of transport using transmission plants as air routes
・We are cooperating in the Ina City drone logistics project and building a logistics system using the airspace over the rivers as long-distance trunk air routes.

Demonstration project on commercialization of a platform using blockchain technology for sharing real estate information

・The Company participated ,as a member, 「ADRE* real estate information consortium」
(*Aggregate Data Ledger for Real Estate)

< Second Quarter Progress >
Smartphone-related commissioned development increased
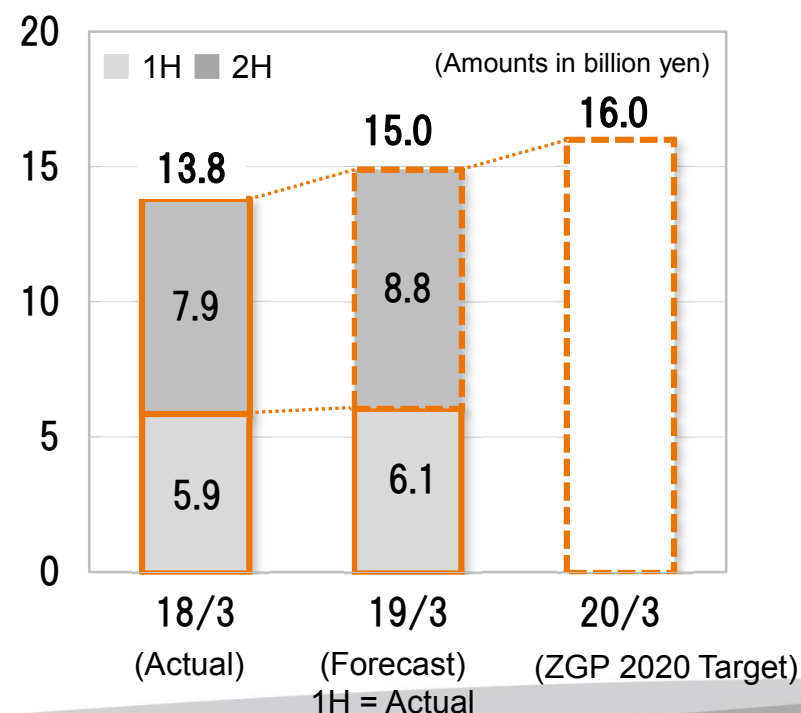
| | 1H | 2H | (Amounts in billion yen) |

- 18/3 (Actual): 13.8 (7.9 / 5.9)
- 19/3 (Forecast): 15.0 (8.8 / 6.1)
- 20/3 (ZGP 2020 Target): 16.0

1H = Actual

*Data for fiscal and fiscal 2020 are reclassified from the previous business composition.

【Marketing Solution Business 】 Establishment and expansion of the marketing solution business

Provision of effective marketing solutions in the midst of significant change of consumers' mindset due to SNS evolution and digital revolution

Priority measures

Create the marketing solution business and expand operations by using group resource

Plan marketing solution business

Improve the profitability of the general printing business

Maintain the profitability of direct promotion

< Second Quarter Progress >
Revenues increased due to the effects of DMS, a newly consolidated subsidiary from the 3rd quarter of the previous fiscal year

☐ 1H ☐ 2H   (Amounts in billion yen)

	18/3 (Actual)	19/3 (Forecast)	20/3 (ZGP 2020 Target)
Total	7.6	8.2	10.0
2H	4.5	4.3	
1H	3.1	3.9	

1H = Actual
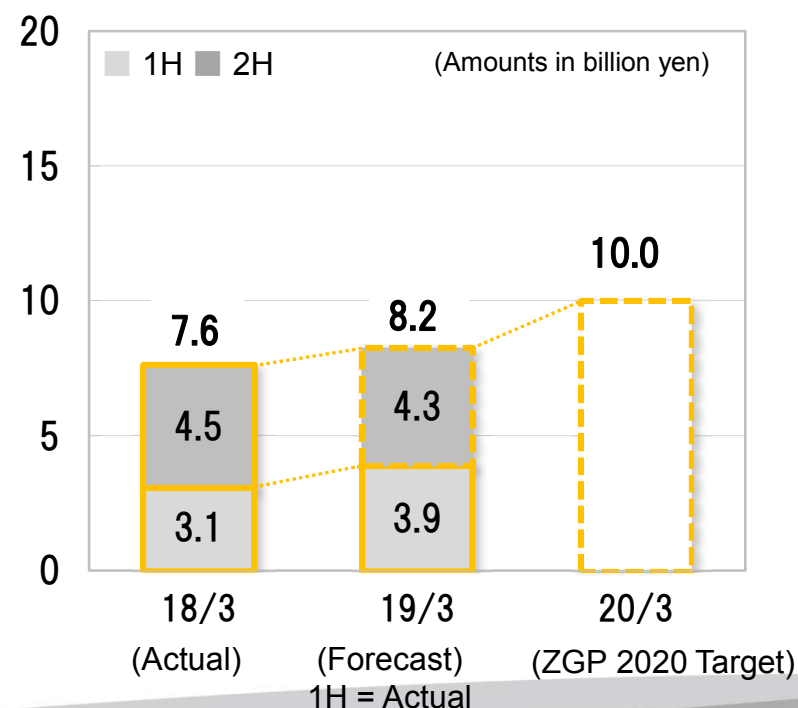
*Data for fiscal and fiscal 2020 are reclassified from the previous business composition.

4. Appendix

1) Overview of Results for First 2 Quarters of Fiscal 2019
   Amount of Capital Investment, Depreciation and R&D Costs
   Changes in Composition of Net Sales by Quarter
   Causes for Change in Operating Income (First Quarter, Second Quarter)
   Purchase of Treasury Shares

2) Overview of Earnings Forecast for Fiscal 2019
   (Excerpt from Briefing on Results for Fiscal 2018 presentation materials)
   Changes in Net Sales, Income and Profit
   Segment Information
   Amount of Capital Investment, Depreciation and R&D Costs
   Medium- to Long-Term Business Plan ZGP2020 Numerical Targets

3) Business Topics

4-1) Overview of Results for First 2 Quarters of Fiscal 2019
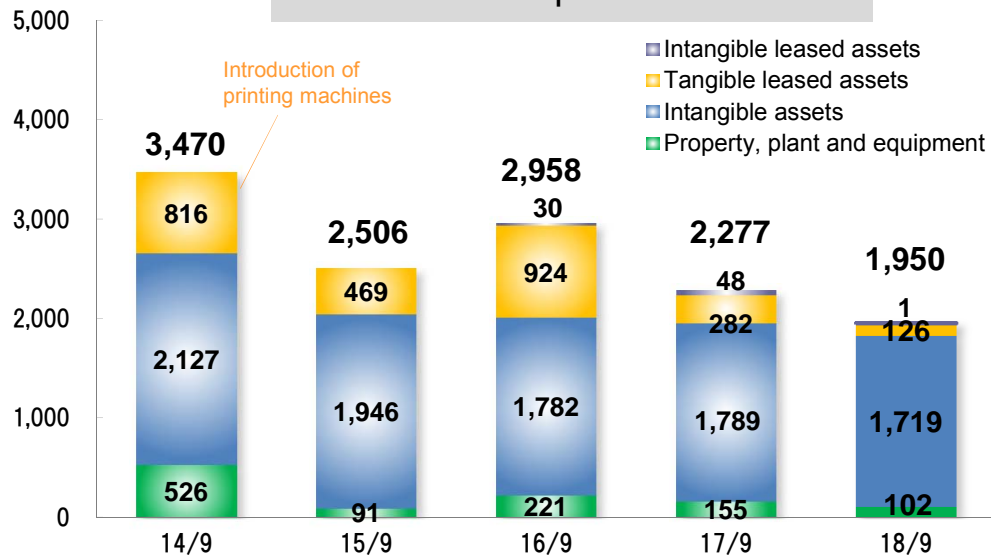## (Amount of Capital Investment, Depreciation and R&D Costs)

ZENRIN
Maps to the Future

(Amounts in million yen)

Amount of Capital Investment

Intangible leased assets
Tangible leased assets
Intangible assets
Property, plant and equipment

Introduction of printing machines

Year	Total	Tangible leased	Intangible assets	Property, plant and equipment
14/9	3,470	816	2,127	526
15/9	2,506	469	1,946	91
16/9	2,958	924 (30)	1,782	221
17/9	2,277	282 (48)	1,789	155
18/9	1,950	126 (1)	1,719	102

R & D Cost

Year	Value
14/9	284
15/9	191
16/9	166
17/9	307
18/9	422

Depreciation

Depreciation of intangible leased assets
Depreciation of tangible leased assets
Depreciation of intangible assets
Depreciation of property, plant and equipment

Year	Total	Tangible leased	Intangible assets	Property, plant and equipment
14/9	2,500	384 (2)	1,609	505
15/9	2,478	382 (1)	1,756	338
16/9	2,714	380 (6)	2,086	241
17/9	2,726	300 (8)	2,165	250
18/9	2,776	270 (12)	2,232	262

4-1) Overview of Results for First 2 Quarters of Fiscal 2019
(Changes in Composition of Net Sales by Quarter)

ZENRIN
Maps to the Future
Briefing on Results for First 2Qs of FY2019

Legend: ■ 1Q ■ 2Q ■ 3Q ■ 4Q

Year	1Q	2Q	3Q	4Q
19/3	21.3%	22.7%	56.0%	
18/3	19.6%	22.8%	22.0%	35.6%
17/3	19.3%	23.6%	22.2%	34.9%
16/3	20.4%	24.6%	22.3%	32.7%
15/3	19.8%	23.3%	24.5%	32.4%

Axis: 0% 25% 50% 75% 100%

4-1) Causes for Change in Operating Income (First Quarter)

(Amounts in billion yen)

Compared to First Quarter of FY2018: +0.5 bn yen

Net Sales
Compared to First Quarter of FY2018: +1.5 bn yen (+13.0%)

The effects of the subsidiary, DMS

+0.4

Data for Japanese in-car navigation systems

+0.6

+0.3

Contract development, etc.

·the effects of the subsidiary, DMS

·Cost of sales including outsourcing fees and commission fees,
·Personnel expenses due to pay raises

+0.9

0.3

-0.2

+0.0

+0.0

-0.0

17/6 Actual	Product	Public Solution	Map Design	Automotive	IoT	Marketing Solution	Operating Expenses	18/6 Actual

4-1) Causes for Change in Operating Income (Second Quarter)
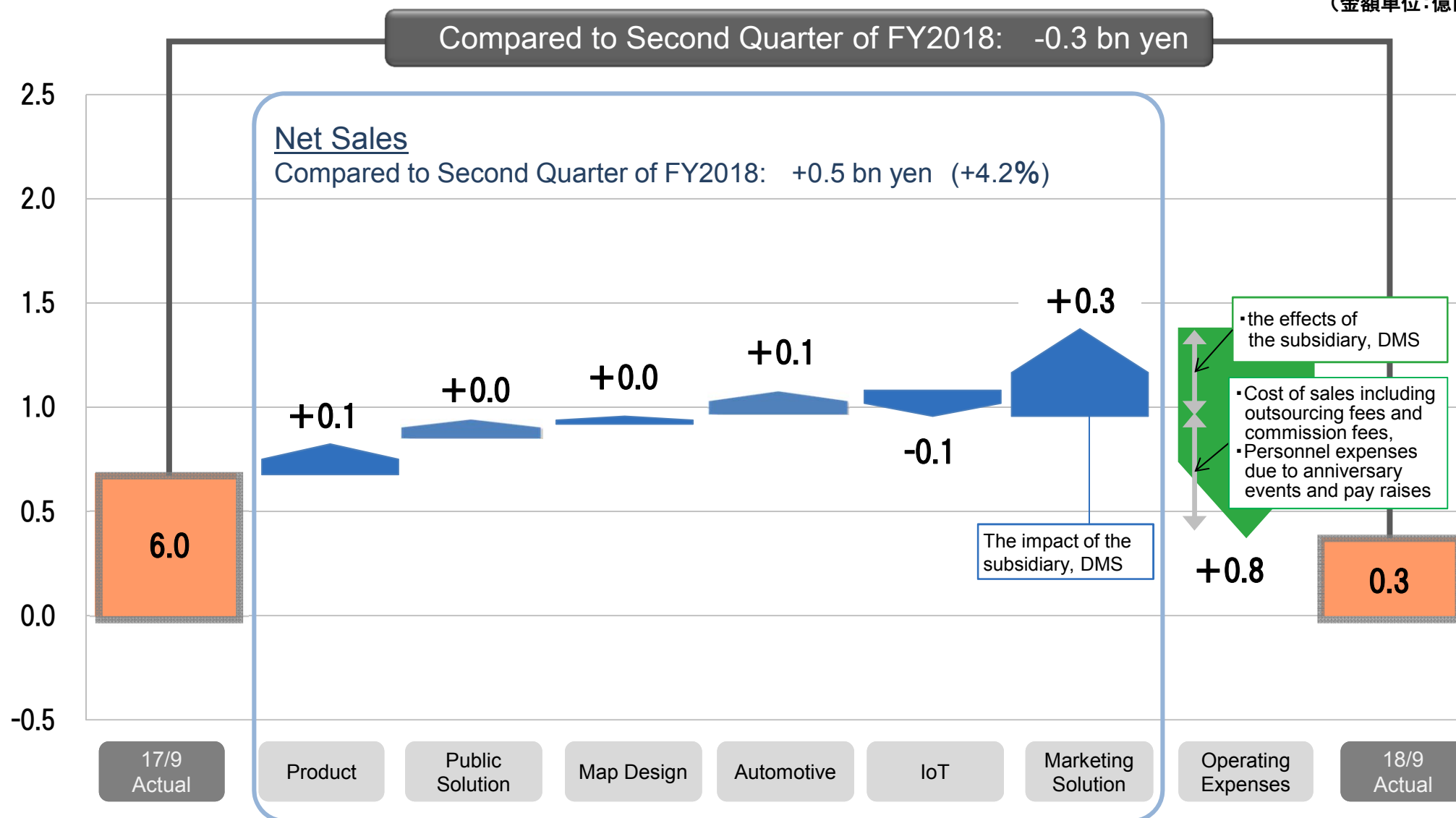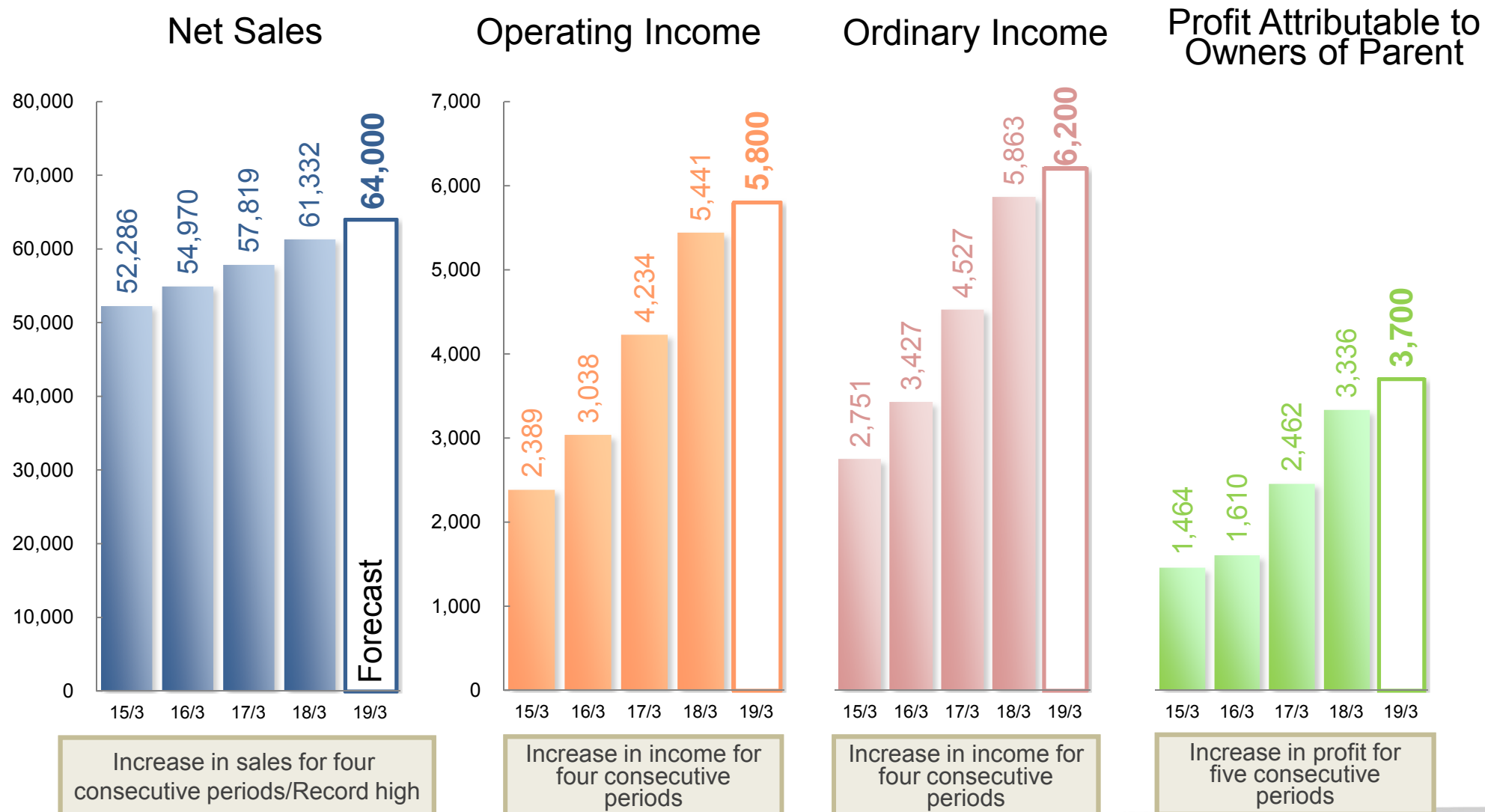
4-1) Purchase of Treasury Shares

Purpose	To Implement a flexible capital strategy, enhance capital efficiency and strengthen the return of profit to shareholders

Date of Board of Directors resolution	Details of resolution		Implementation status of acquisition
March 7, 2018	Period of purchase	March 8 to May 31, 2018	March 8 to May 31, 2018
	Number of shares acquired	3,450,000 shares （¥8 billion）	2,252,700 shares （¥5,143,267,000）
June 15, 2018	Period of purchase	June 19 to September 30, 2018	June 19 to September 20, 2018
	Number of shares acquired	600,000 shares （¥1.5 billion）	510,900 shares （¥1,499,893,068）

*Acquired through market purchase on the Tokyo Stock Exchange (Purchase via ToSTNeT-3)
*The acquisition period is on the basis of the execution date.

4-2) Overview of Earnings Forecast for Fiscal 2019
(Changes in Net Sales, Income and Profit)

ZENRIN
Maps to the Future
Briefing on Results for First 2Qs of FY2019

(Amounts in million yen)

Net Sales

15/3	16/3	17/3	18/3	19/3
52,286	54,970	57,819	61,332	64,000 (Forecast)

Increase in sales for four consecutive periods/Record high

Operating Income

15/3	16/3	17/3	18/3	19/3
2,389	3,038	4,234	5,441	5,800

Increase in income for four consecutive periods

Ordinary Income

15/3	16/3	17/3	18/3	19/3
2,751	3,427	4,527	5,863	6,200

Increase in income for four consecutive periods

Profit Attributable to Owners of Parent

15/3	16/3	17/3	18/3	19/3
1,464	1,610	2,462	3,336	3,700

Increase in profit for five consecutive periods

4-2) Overview of Earnings Forecast for Fiscal 2019
(Segment Information)

Sales Composition

83.5%

1. Map Database Segment

Main Items: Printed residential maps,
residential map databases,
map data for Japanese and overseas
in-car navigation systems,
services for smartphones,
map data provision, etc. for various media/devices

6.4%

2. General Printing Segment

Main Items: Commercial printing

10.1%

3. Other

Main Items: Purchased products,
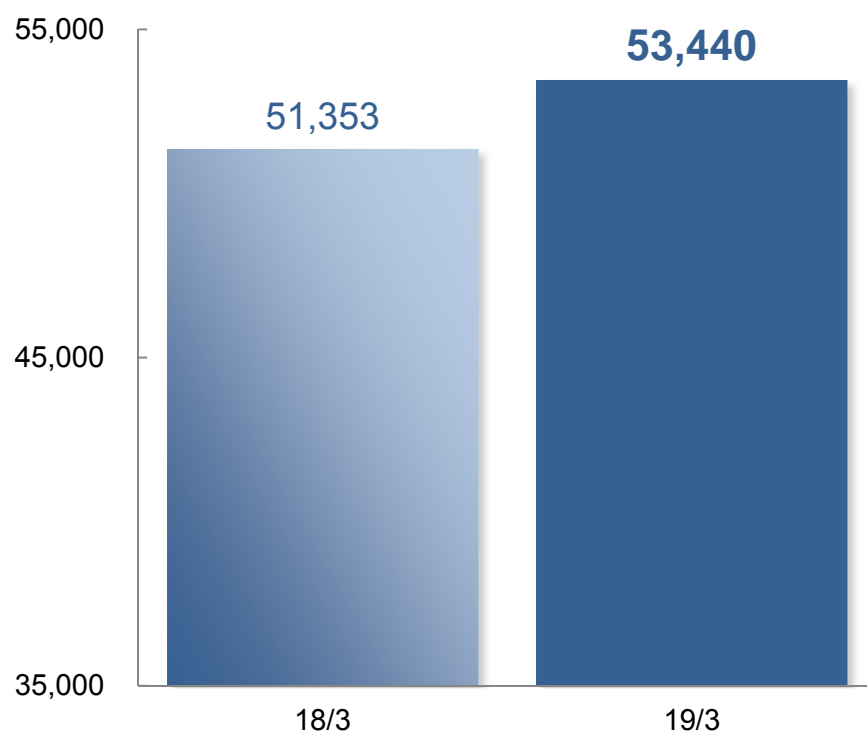digital signage,
provision of Marketing Solution

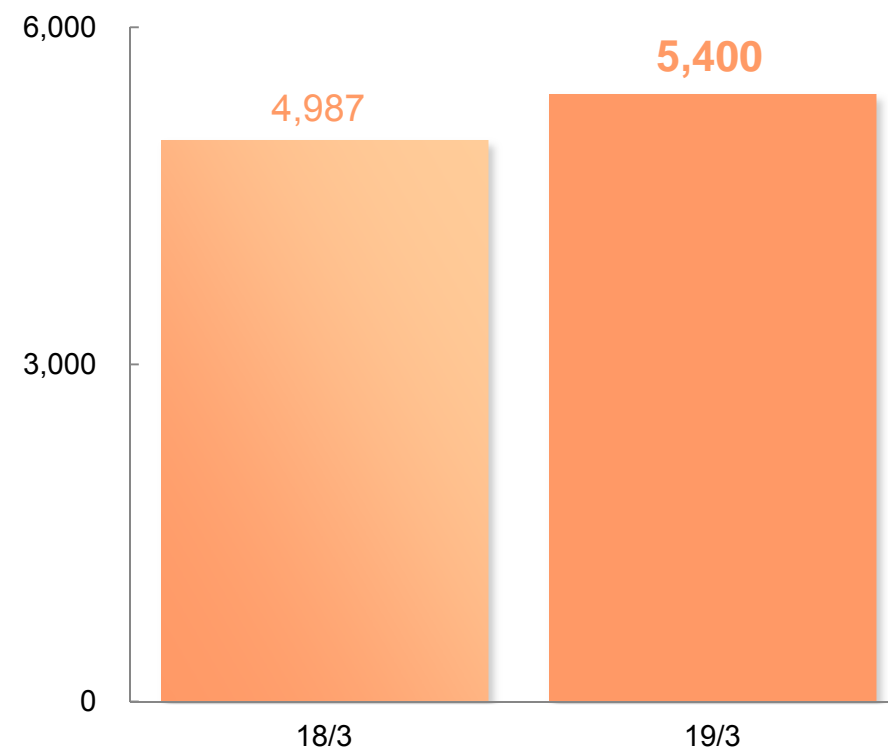# 4-2) Overview of Earnings Forecast for Fiscal 2019
(Segment Information)

ZENRIN
Maps to the Future

(Amounts in million yen)

Net Sales

Compared to FY2018: **Up 2,086 (+4.1%)**

- 18/3: 51,353
- 19/3: 53,440

Operating Income

Up 412 (+8.3%)

- 18/3: 4,987
- 19/3: 5,400

4-2) Overview of Earnings Forecast for Fiscal 2019
(Segment Information)

ZENRIN
Maps to the Future

(Amounts in million yen)

General Printing Segment

Net Sales

Compared to FY2018

| Up 355 (+9.5%) |

- 8,000
- 4,000
- 0

3,734 (18/3) — 4,090 (19/3)

Operating Income

| Down 15 (-19.2%) |

- 400
- 200
- 0

81 (18/3) — 65 (19/3)

Other

Net Sales

Compared to FY2018

| Up 225 (+3.6%) |

- 8,000
- 4,000
- 0

6,244 (18/3) — 6,470 (19/3)

Operating Income

| Down 33 (-11.3%) |

- 400
- 200
- 0
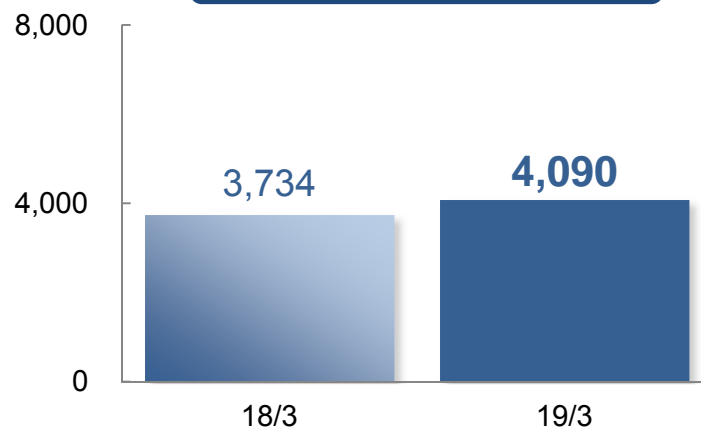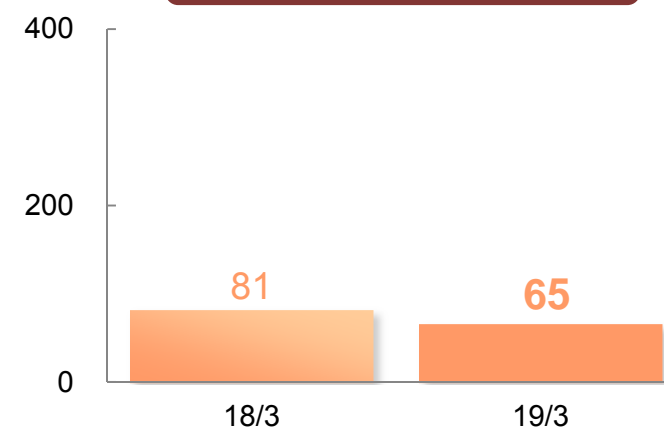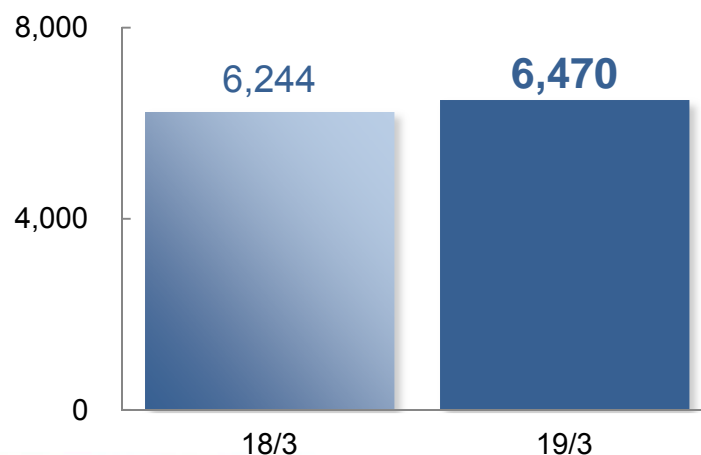
293 (18/3) — 260 (19/3)
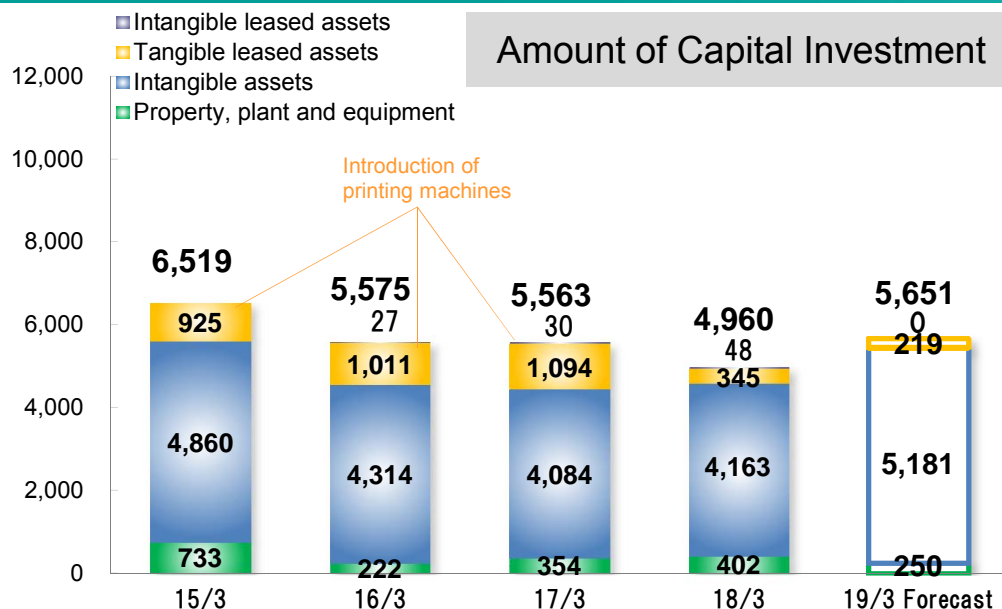
4-2) Overview of Earnings Forecast for Fiscal 2019
(Amount of Capital Investment, Depreciation and R&D Costs)

ZENRIN
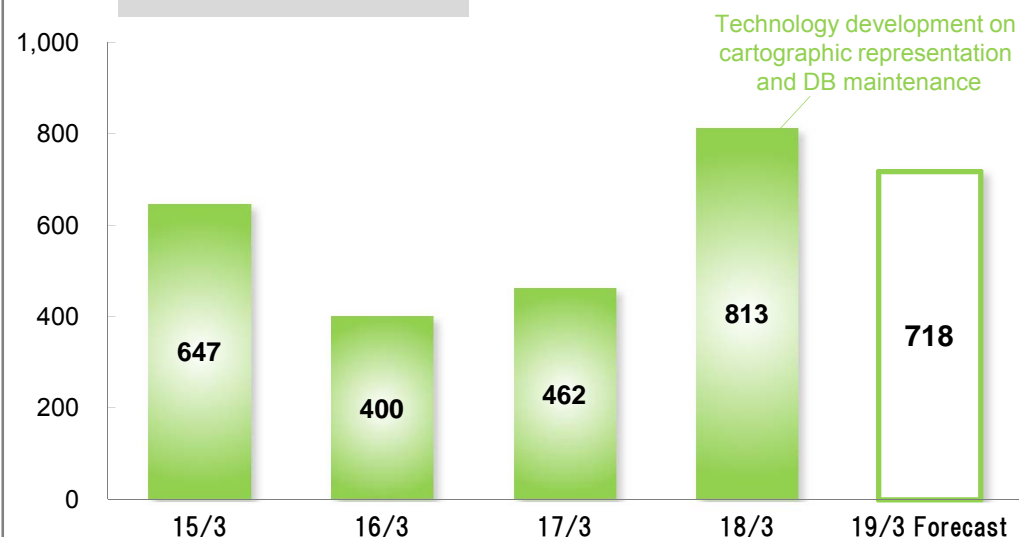Maps to the Future
Briefing on Results for First 2Qs of FY2019

(Amounts in million yen)

Amount of Capital Investment

Legend:
- ☐ Intangible leased assets
- ☐ Tangible leased assets
- ☐ Intangible assets
- ☐ Property, plant and equipment

Introduction of printing machines

	15/3	16/3	17/3	18/3	19/3 Forecast
Total	6,519	5,575	5,563	4,960	5,651
Intangible leased assets		27	30	48	0
Tangible leased assets	925	1,011	1,094	345	219
Intangible assets	4,860	4,314	4,084	4,163	5,181
Property, plant and equipment	733	222	354	402	250

R & D Cost

Technology development on cartographic representation and DB maintenance

	15/3	16/3	17/3	18/3	19/3 Forecast
R & D Cost	647	400	462	813	718

Depreciation

Legend:
- ☐ Depreciation of intangible leased assets
- ☐ Depreciation of tangible leased assets
- ☐ Depreciation of intangible assets
- ☐ Depreciation of property, plant and equipment

	15/3	16/3	17/3	18/3	19/3 Forecast
Total	5,005	5,181	5,591	5,532	5,683
Depreciation of intangible leased assets	4	5	14	21	25
Depreciation of tangible leased assets	774	781	724	590	502
Depreciation of intangible assets	3,279	3,703	4,358	4,382	4,624
Depreciation of property, plant and equipment	946	691	493	539	531

4-2) ZGP2020 Numerical Targets

|	ZGP2020 Actuals and Targets				
	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Forecast	FY2020 Target
Consolidated Net Sales	54.9 bn yen	57.8 bn yen	61.3 bn yen	64.0 bn yen	70.0 bn yen
Consolidated Operating Income (Margin)	3.0 bn yen (5.5%)	4.2 bn yen (7.3%)	5.4 bn yen (8.9%)	5.8 bn yen (9.1%)	10.0 bn yen (14.2%)
ROE (Return on equity)	4.0%	6.0%	8.2%	9.4%	12% or higher
DOE (Dividend on equity on a consolidated basis)	3.0%	3.1%	3.2%	3% or higher	3% or higher

■Cooperation with KDDI towards the commercialization of the Ina City drone logistics project (August 30, 2018)

Ina City of Nagano prefecture has started demonstrations towards the commercialization of Japan's first (*1) logistics that combine the construction of a new drone logistics system with airspace over rivers as trunk air routes and the formation of a supply chain through public-private partnership.
KDDI Corporation and Zenrin have been commissioned by Ina City to cooperate in this project towards its commercialization.

*1:
Commercialization of logistics that combine the construction of a new logistics system with drones using the airspace over rivers as trunk air routes and the formation of a supply chain comprising product procurement, promotion, ordering, delivery and payment settlement through the cooperation of companies, local volunteers and others (According to a survey conducted by the City of Ina as of August 30, 2018)
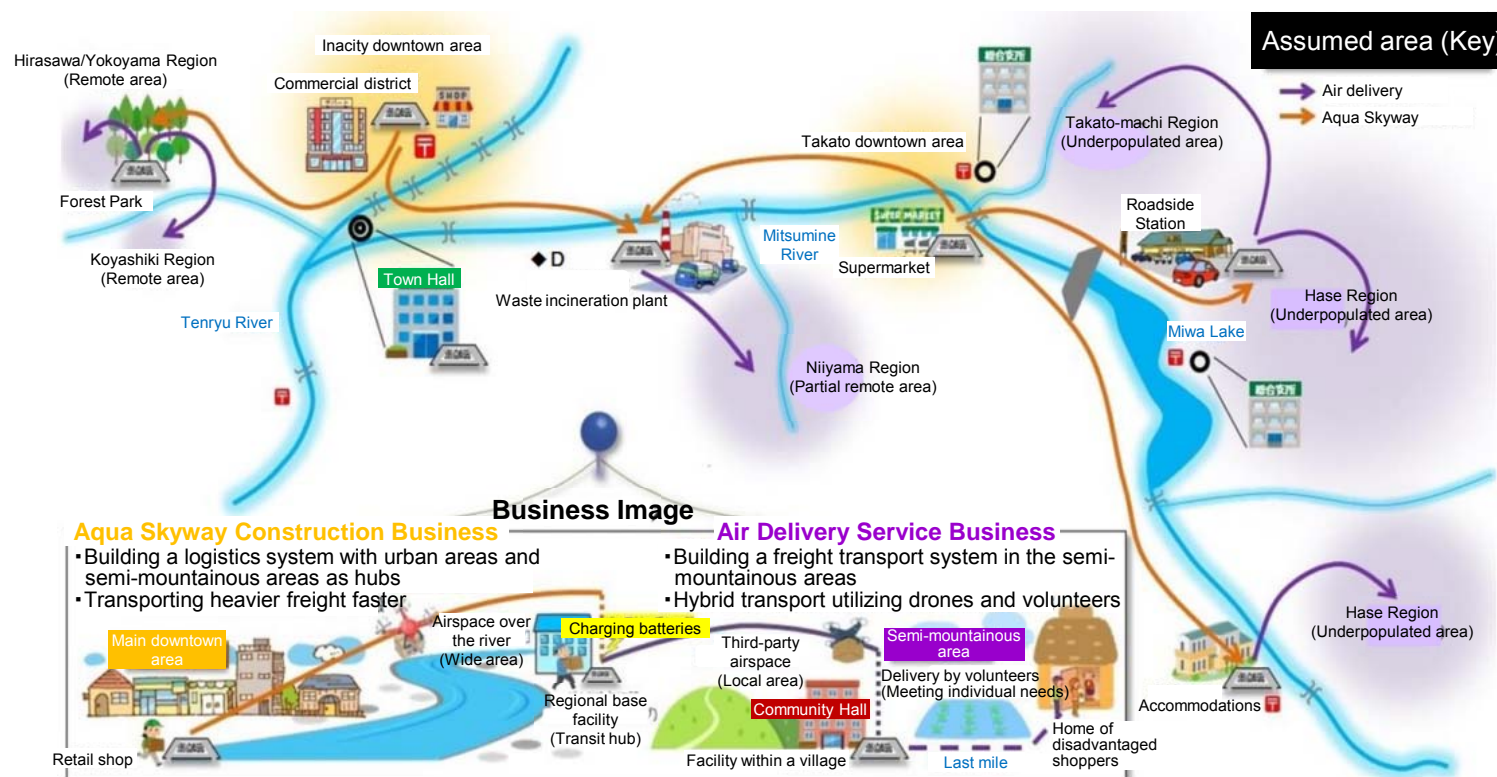
4-3) Business Topics

■Exhibiting at various events

● Exhibited at "86th Tokyo International Gift Show Autumn 2018" (September 4 – 7)
Introduced map design goods including "mati mati," the map stationery

● Exhibited at "25th ITS World Congress in Copenhagen 2018" (September 17 – 21)
Introduced the "Zenrin Map Eco-System" concept which enables
the provision of updated maps and information in real time
by coordinating and utilizing and various IoT technologies
from devices to big data, in order to realize recycling platforms
and map solutions that are indispensable to a new mobility society.

● ZENRIN DataCom Co., Ltd. exhibited at "Big Data Utilization Fair Autumn" (October 24 – 26)
At ZENRIN DataCom's booth at Japan's largest specialized fair where every product and service from basic big data technology to utilization solutions is exhibited, we put on a display using examples of our various efforts on how "Location Intelligence" is actually used in business operations. "Location Intelligence" helps businesses by analyzing big data on various probe location information on automobile, trains and pedestrians.

ZENRIN
Maps to the Future
Results for First Quarter of Fiscal 2017

ZENRIN
Maps to the Future

ZENRIN CO.,LTD.   http://www.zenrin.co.jp
Corporate Management Division, Management Control & IR Department
IR contact email: zenrin-ir@zenrin.co.jp