



TOSHIBA

TOSHIBA IR Day 2019

Digital Solutions

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Forward-looking Statements

- This presentation contains forward-looking statements concerning future plans, strategies, and the performance of Toshiba Group.
- These statements are not historical facts; rather, they are based on assumptions and judgments formed by the management of Toshiba Group in light of currently available information. They include items that have not been finally decided at this point and future plans that are yet to be confirmed or that require further consideration.
- Since Toshiba Group promotes business in various market environments in many countries and regions, its activities are subject to a number of risks and uncertainties that are, without limitation, related to economic conditions, worldwide mega-competition in the electronics business, customer demand, foreign currency exchange rates, tax rules, regulations, geopolitical risk, natural disasters and other factors. Toshiba therefore wishes to caution readers that actual results might differ from expectations. Please refer to the annual securities report (*Yuukashoken houkokusho*) for FY2018 and the quarterly securities report (*shihanki houkokusho*) for the second quarter of FY2019 (both issued in Japanese only) for detailed information on Toshiba Group's business risk.
- Toshiba's fiscal year (FY) runs from April 1 to March 31. All figures are consolidated totals for 12 months, unless otherwise stated.
- Results in segments have been reclassified to reflect the current organizational structure, unless otherwise stated.

Agenda

- 01 Business Domain and Focus Initiatives
- 02 Business Goals
- 03 Initiatives for Further Growth
- 04 Realizing the SDGs in Our Value Chain

01

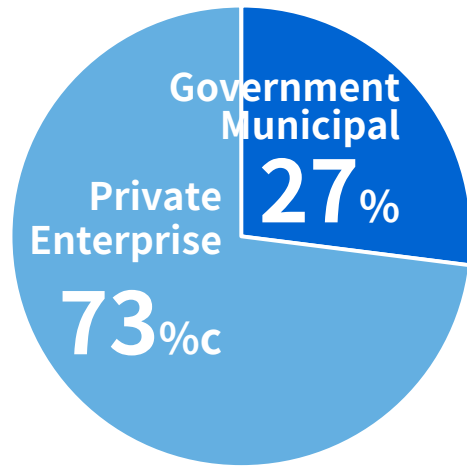
Business Domain and Focus Initiatives



Digital Solutions Business Domain and Focus Initiatives

FY18 Results

Net Sales 253.1 billion yen



Existing Business

Reinforce SI Business

Optimize costs by leveraging off-shore resources

- ① Selection and concentration (business fields and customers)
- ② Standardization of software assets

New Business

Reforming business models

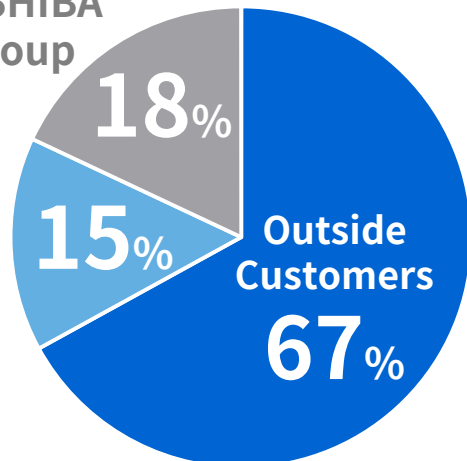
with digital technology (promotion of DX *)

- ① “Co-creation” with customers and partners, open innovation
- ② Total capabilities of Toshiba Group’s synergies
(IoT / AI) x (Accumulated Knowledge of Various Domains)

*** DX: Digital Transformation**

TOSHIBA Group

KIOXIA corporation



Sharing know-how for outside and Toshiba Group

Digital Solutions Recent Business Activities

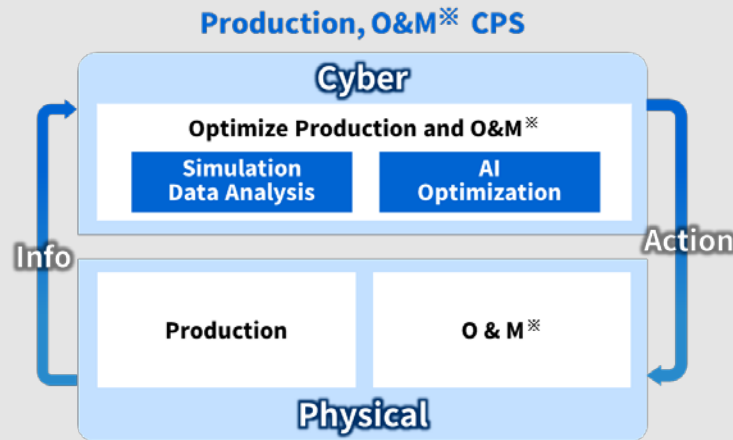
Global Business with Mitsui & Co., Ltd

- UK National Rail
Improve railway operation
- Spain Gestamp
Factory DX
- Mexico Falcon
Thermal power generation
O&M



Factory IoT (Meister Series™)

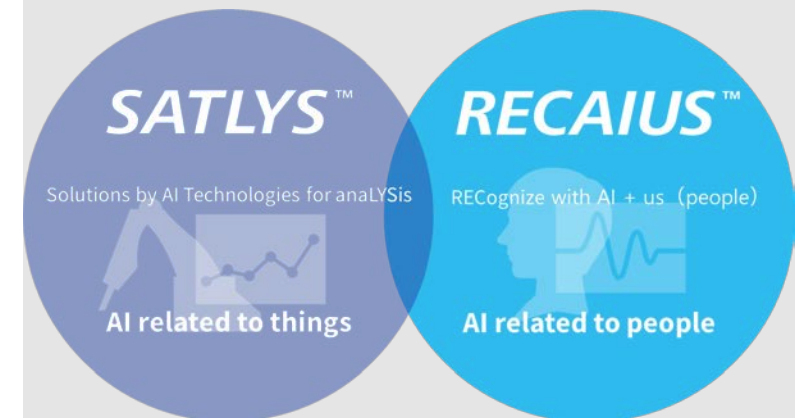
Factory IoT Solution
(Now more than customers)



RECAIUS (Voice / Image AI)

RECAIUS business

Completion about 160
POC about 300



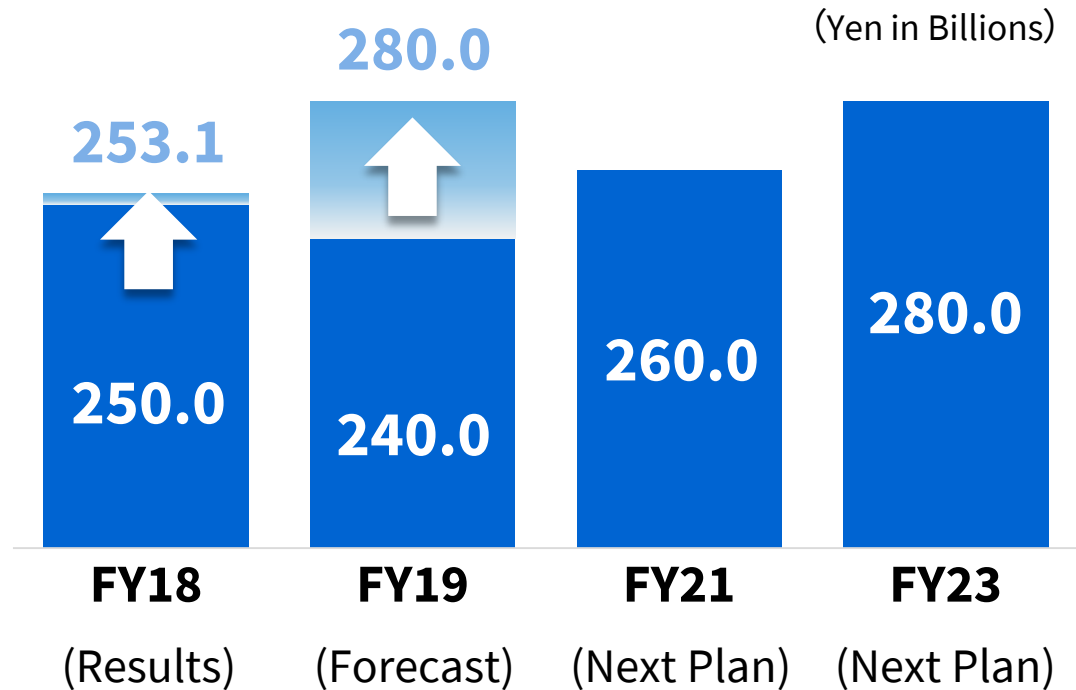
02

Business Goals

Current Status of Progress on the TOSHIBA Next Plan



Net Sales



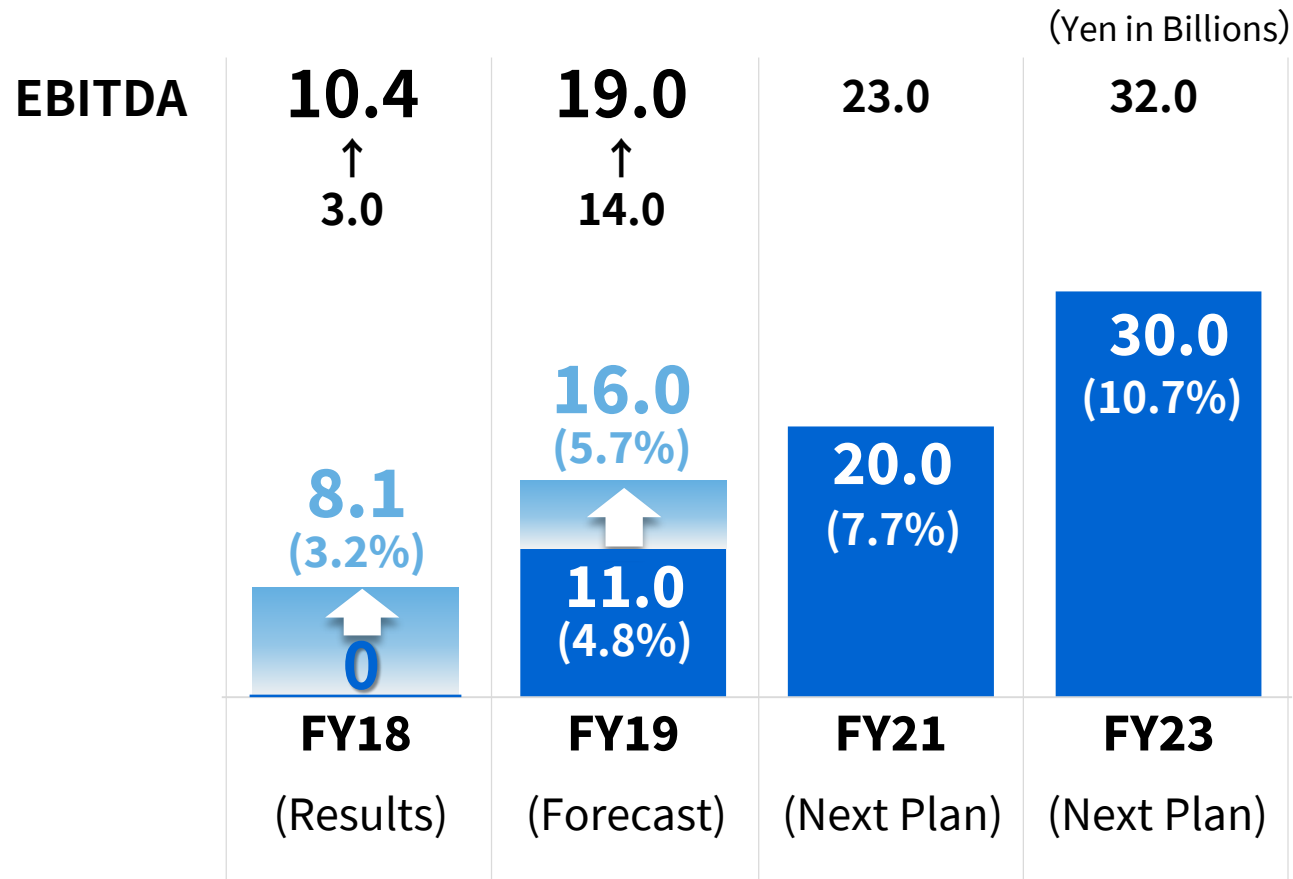
FY23

Goal of Net Sales

280.0 Billion Yen

... Net Sales Target of Next Plan

Operating Income (ROS)

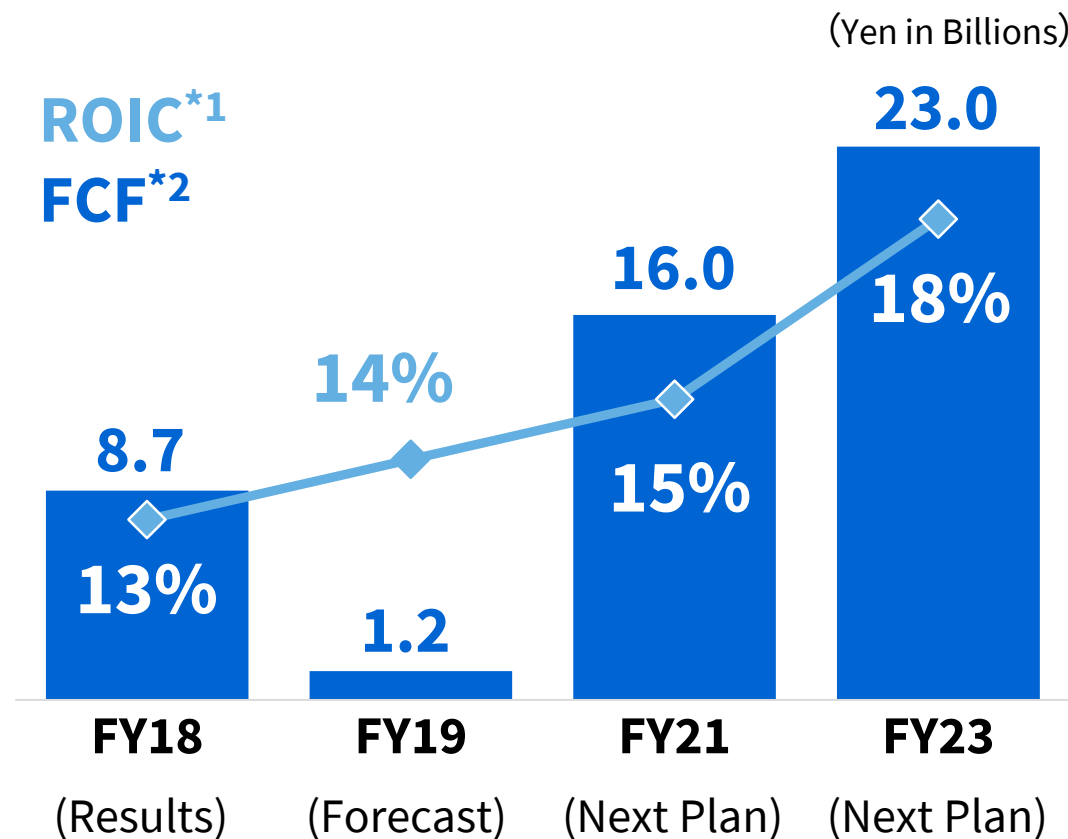


... Operating Income Target of Next Plan

FY23
Goal of Operation Income
30.0 Billion Yen
ROS
10.7 %

Digital Solutions Business Goals

ROIC • FCF



FY23

ROIC

18 %

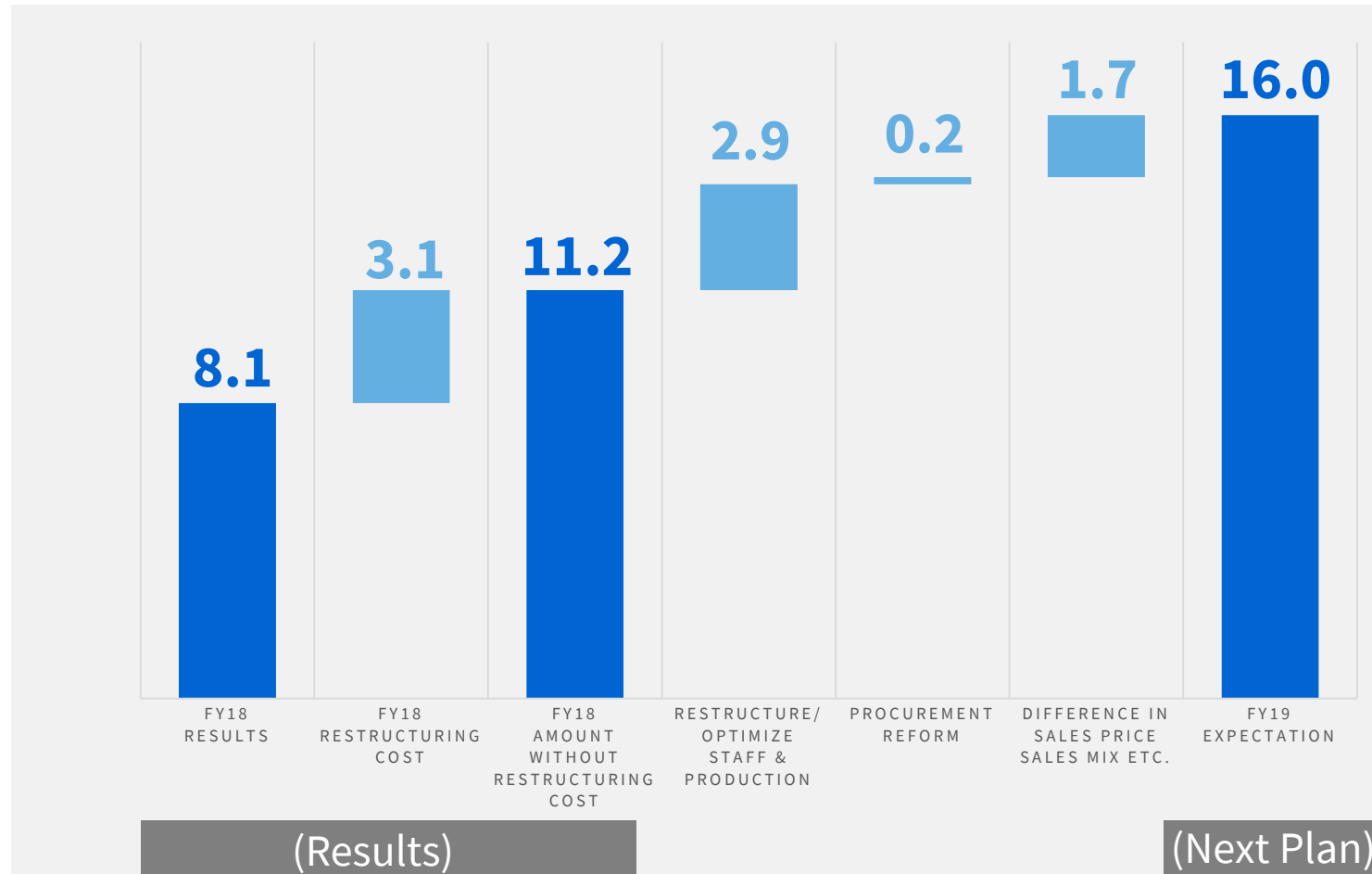
FCF

23.0 Billion Yen

Improvement Plans for Digital Solutions Operating Income (FY18 → FY19)

Plan to improve profit through structural reforms and business transformation

(Yen in Billions)



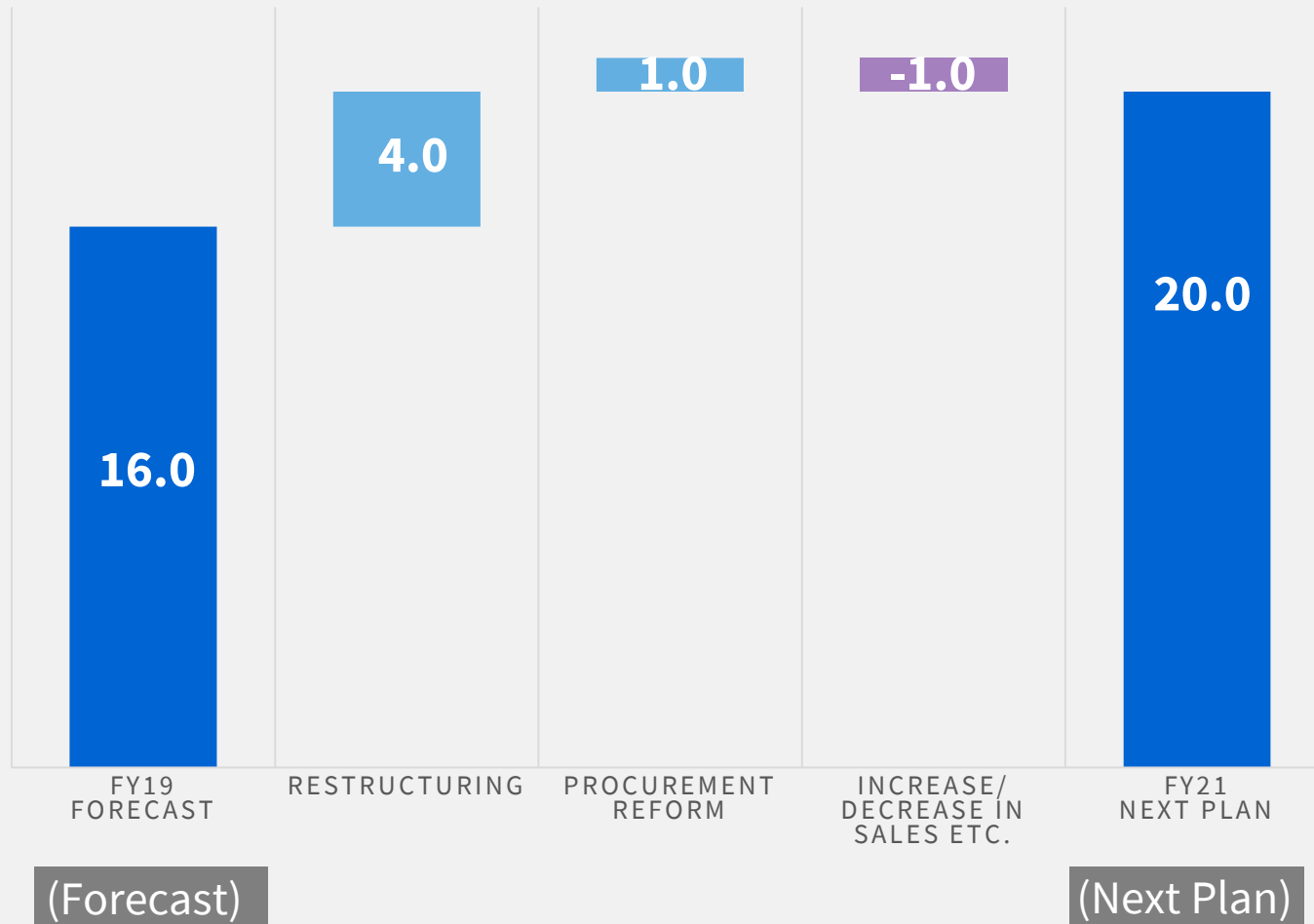
FY19 forecast

16.0 Billion Yen

Improvement Plans for Digital Solutions Operating Income (FY19 → FY21)

Plan to improve profit through structural reforms and business transformation

(Yen in Billions)



FY21 Next Plan

20.0 Billion Yen

Digital Solutions : Revenue, Operating Income, EBITDA

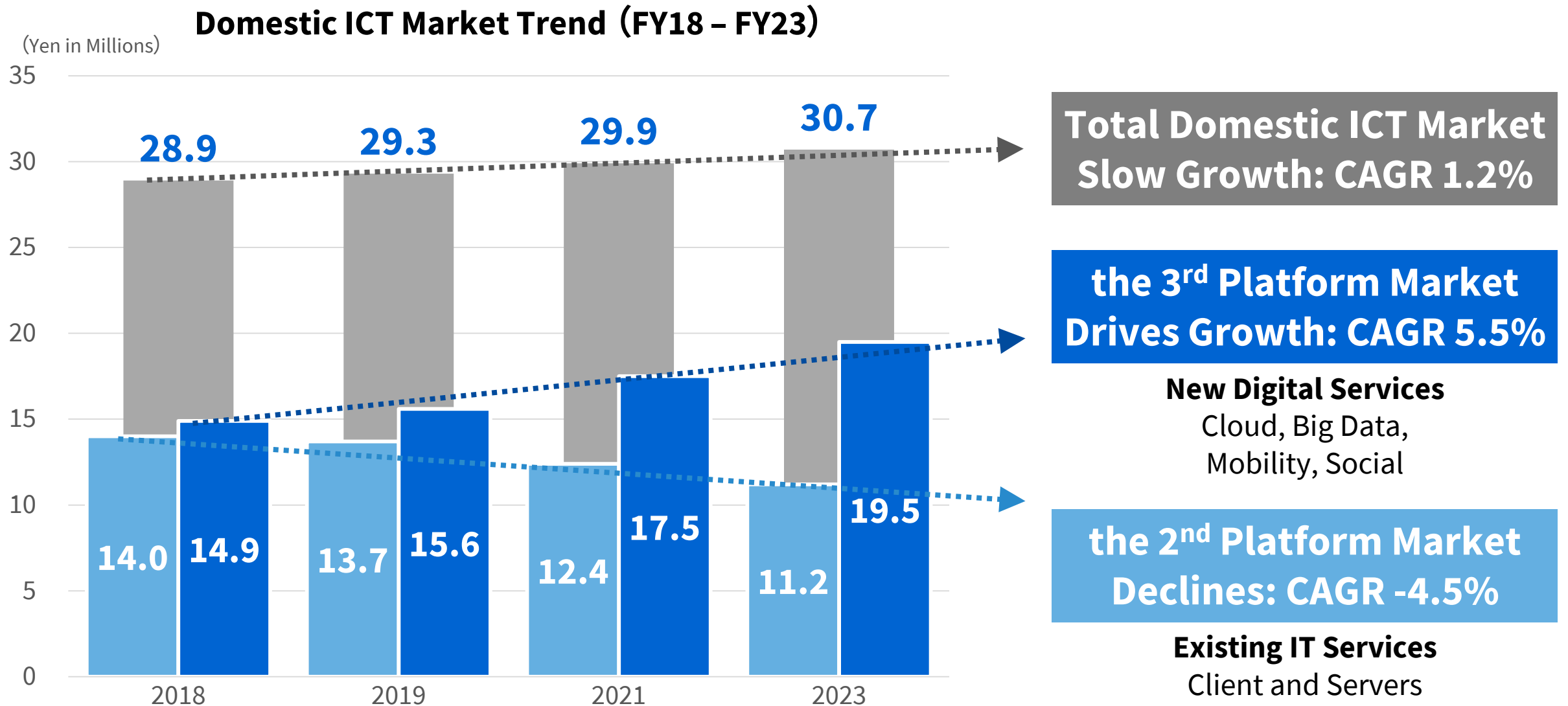
Digital Solutions	FY18	FY19	FY21	(Yen in Billions)
Net Sales	253.1	280.0	260.0	
Operating Income	8.1	16.0	20.0	
EBITDA	10.4	19.0	23.0	

03

Initiatives for Further Growth



Digital Solutions Market Trend



Challenges to Growing the Digital Solutions Business

from System Integrator to Service Integrator

Integrator

System

Existing SI

Customized development
||
Cost base

Requirement definition and System Development

Requirement:
Customer-led decision

Development:
One time for long, long time

Maintenance

Integrator

Service

DX SI

Co-creation
Open innovation
Create new business
||
Value base
Recurring Revenue

Requirement:
Co-creation with customer

Development: Agile (several times for short)
After release:
Often improve from findings in operation



Managed Service + Operation (keep providing during the lifecycle)

Keep supporting not only one lifecycle, but next generation

Challenges to Growing the Digital Solutions Business

TOSHIBA's CPS: (IoT and AI) x Extensive Business Domain Assets



Challenges to Growing the Digital Solutions Business

Cooperation with Mitsui & Co. on CPS Business Establish Strategic Alliance to Accelerate Creation of DX Business

U.K.
Greater Anglia
National Rail



Railway Operation Plans with CPS Technology
(Press release on Sep. 10)

“Digital Twin” creating railway operation plans

Spain
Gestamp
Manufacture of Metal
Automotive Components



Welding Defect Detection Solution
with machine and deep learning of image data
Start a pilot test for a fee at Bielfeld Plant in Germany
(Press release on Oct. 28)

Mexico
Falcon
Thermal Power
Generating Plant

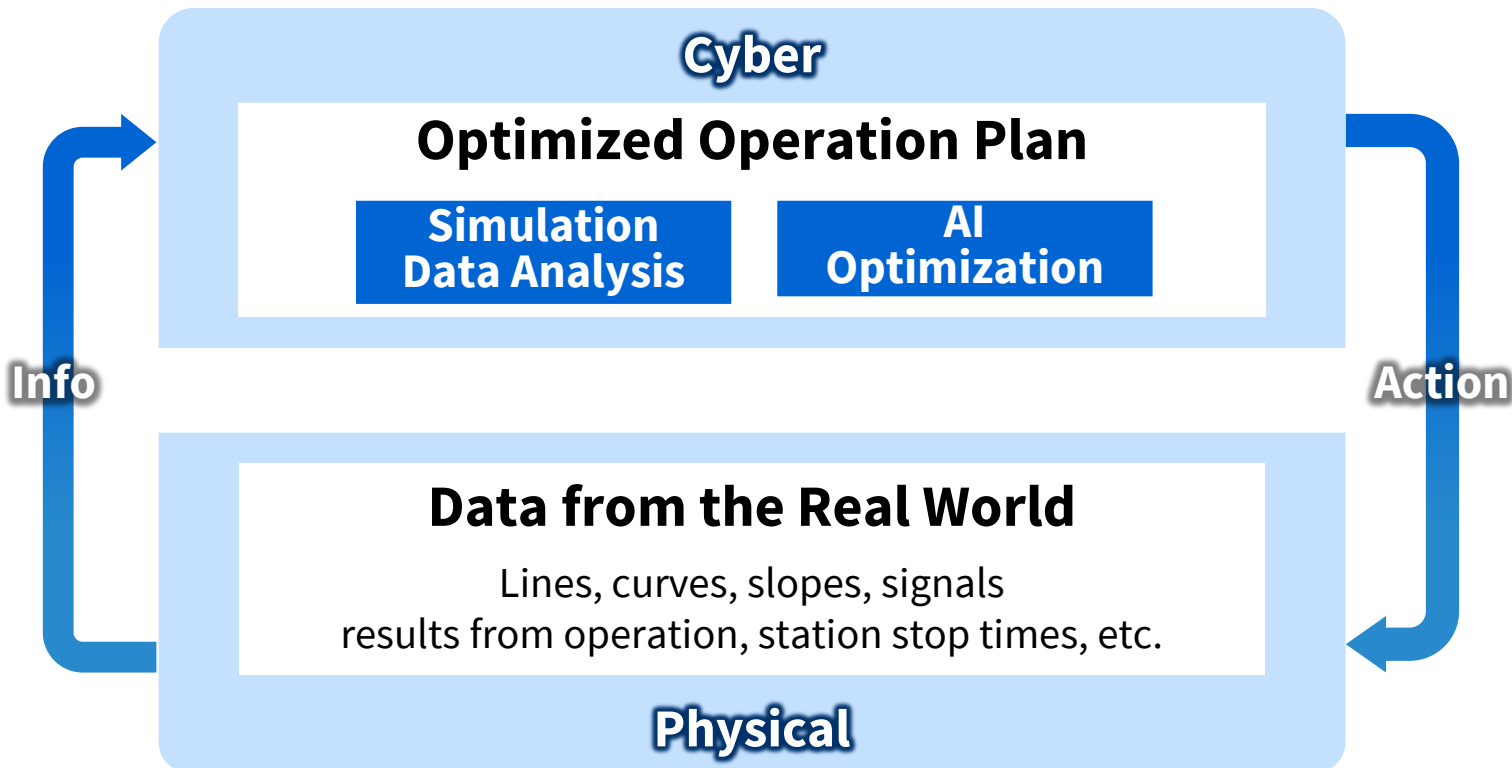


Optimize Operation Parameter
with data from thermal power plant (POC)
⇒ Improve thermal efficiency, operation rate
(Press Release on Nov. 1)

Challenges to Growing the Digital Solutions Business

Greater Anglia “Railway Operation Plans with CPS”

Railway Operation Plans with CPS



CPS provides following values

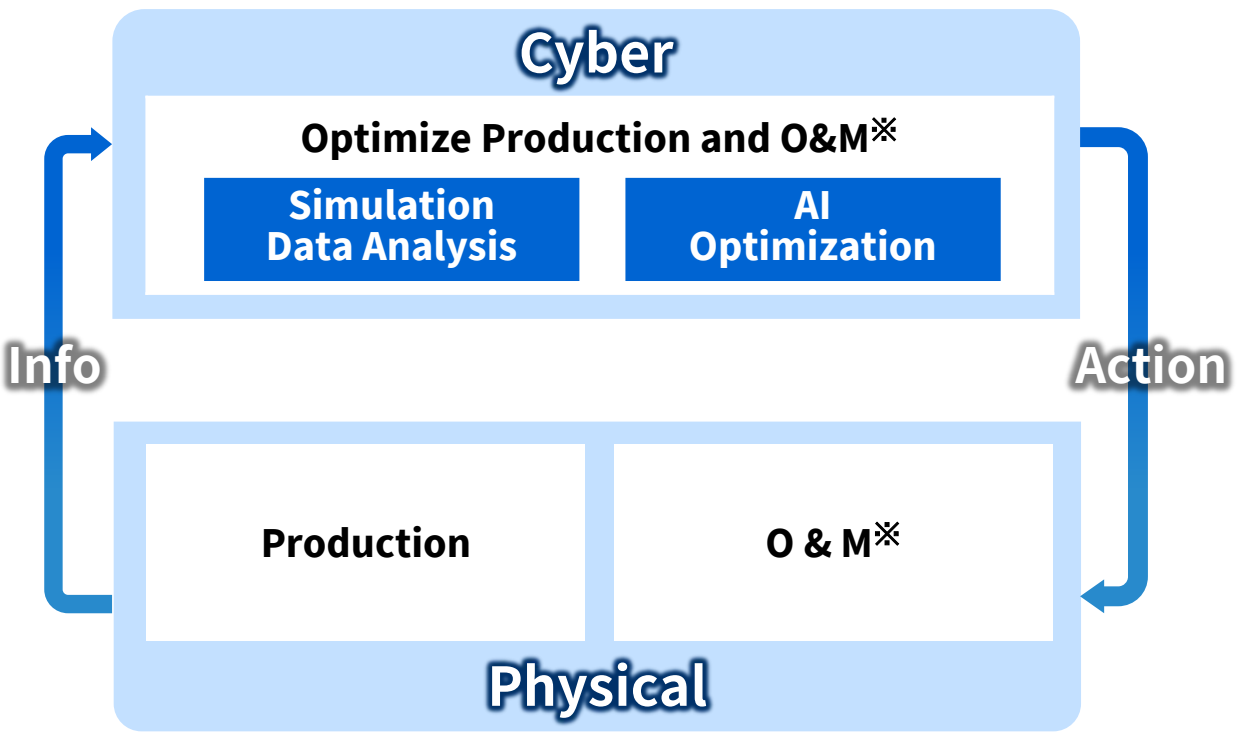
- ① **Optimize railway operation plans**
Risk reduction of train delay
- ② **Improve customer satisfaction**
Improve customer convenience
- ③ **Improve management efficiency**
Optimized crew operation plan
Improved operation performance

Challenges to Growing the Digital Solutions Business

IoT Solution for Manufacturing “Meister Series™”

(Automobile 5, Industrial Machinery 3, Electronic Component 2, TOSHIBA Group 3)

Production, O&M * CPS



* O&M = Operation & Maintenance

As a manufacturer TOSHIBA can provide use cases and know-how

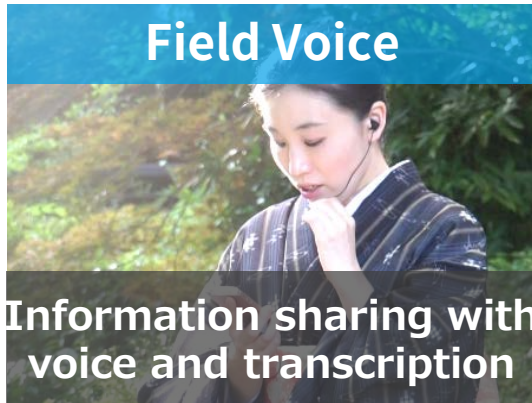
From data collecting to analysis
Provide one stop solutions

- Analyze** IoT Utilizing Solution for Manufacturing *Meister Apps™*
- Store** Data Connection Platform for Manufacturing *Meister DigitalTwin™*
- Collect** IoT Solution for Manufacturing Industry *Meister IoT™*

Challenges to Growing the Digital Solutions Business

RECAIUS use cases

productivity improvement
efficiency
Embedded voice middleware



Field Voice
Information sharing with voice and transcription
陣屋 JINYA CONNECT Improve communication among employees



Report Agent
Timely information gathering
Registration assistance on CRM



Contact Center Plus
Customer satisfaction
WorkVision Creating Value for The Future Improve quality of telephone reception with recorded interactions

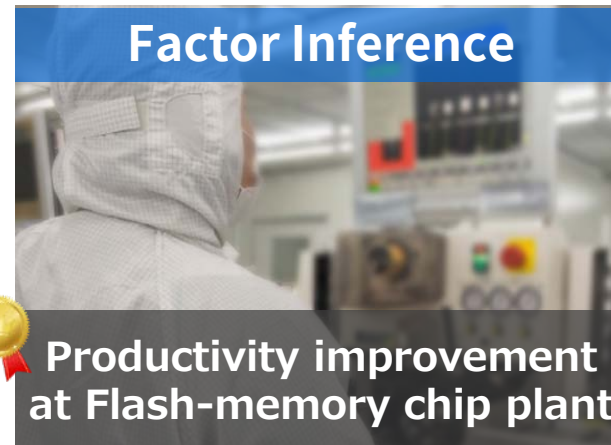


SATLYS use cases

forecasting
anomaly detection
factor inference
deep learning



Forecasting
Power demand prediction
For Tokyo electric power company holding
Won No.1 Prize



Factor Inference
Productivity improvement at Flash-memory chip plant
FY2016 The Japanese society for artificial intelligence
Field innovation award Gold medal

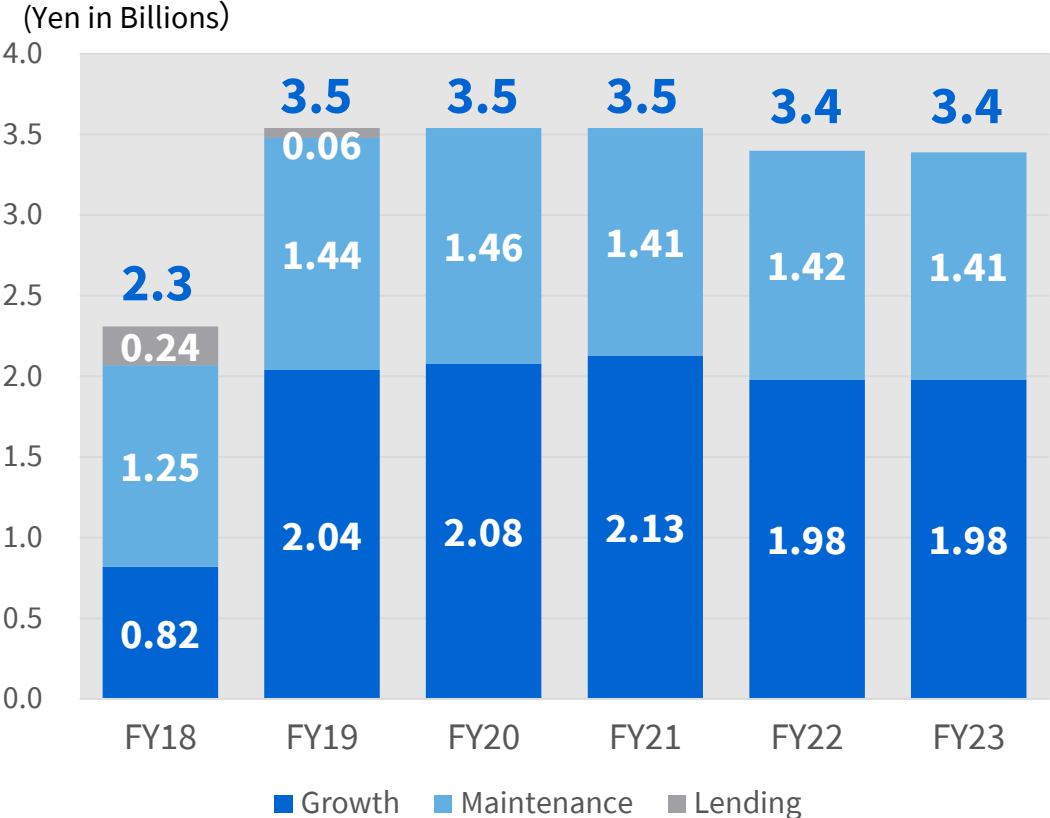


Image Analysis
Detection of cancer cells in pathology slide
Joint Study with Chiba University
Support pathologists suffering from shortage of human resources

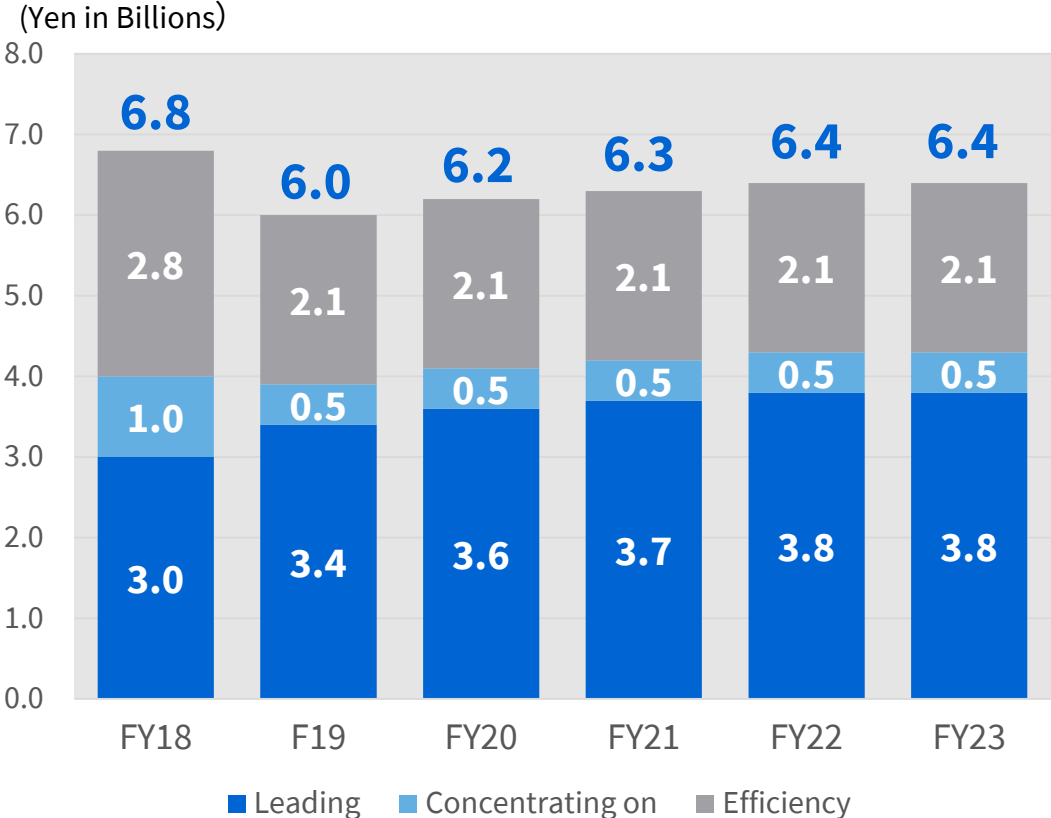
Capital Expenditure / Research and Development

- **Capital Expenditure:** Prioritize investments where an earlier return can be expected
- **Research & Development:** Focus on R&D to change or create business model
(*SPINEX, RECAIUS, SATLYS*)

Capital Expenditure
(FY19-FY23 Total 17.3 billion yen)



Research and Development
(FY19-FY23 Total 31.3 billion yen)



04

SDGs against the Value Chain



SDGs against the value chain - Digital Solutions Business -

Contribute to the achievement of the SDGs with our vision “Making Society Better with Kind and People-friendly Digital Solutions”

INCREASING POSITIVE IMPACTS on SDGs



Contribute sustainable industrialization through IoT and AI technology innovation
-Manufacturing IoT solutions "Meister Series", Toshiba Analytics AI "SATLYS"-



Improve work-life balance by using AI and RPA
-Toshiba Communication AI "RECAIUS"-



Realize healthy and high quality life
-Solutions for welfare and health administration-



Technological innovation for efficient use of energy
-Virtual Power Plant Solution-



Realize comfortable lives by optimizing operation of urban infrastructure
-Train Timetables using AI-enabled cyber-Physical Systems



Create new economic values and business models through co-creation
-Contribute to social innovation by promoting digital transformation globally in collaboration with Mitsui & Co.-

企画(商品戦略)

開発

提案

調達

構築・導入

サービス



Measures against information security risks such as information leakage and data destruction that are progressing with the introduction of IoT and AI
-Strong data security infrastructure, development of access management and encryption technology-



Measures against the risk of system downtime of social infrastructure due to system troubles
-System multiplexing, strengthening IT common infrastructure-



Measures against digital divide associated with the rapid spread of AI society
-Value creation by RECAIUS and SATLYS-



Measures against the energy consumption associated with the rapid spread of IT equipment
-energy saving equipment and IT infrastructure-

MINIMIZING NEGATIVE IMPACTS on SDGs

Who We Would Like to be 10 Years Later and Several Actions to Achieve it.

**Making society better
with Kind and People-friendly Digital Solutions.**

Imagine: Envisioning future standard

Change: Leading our own evolutions

Create: Co-Creating new value

Connect: Sharing our solutions worldwide



**Committed to People,
Committed to the Future.**

TOSHIBA