

# Beyond testing, beyond limits, for a sustainable future together

Anritsu Corporation

August, 2021



# **Cautionary Statement**



All information contained in this release which pertains to the current plans, estimates, strategies and beliefs of Anritsu Corporation (hereafter "Anritsu") that is not historical fact shall be considered forward-looking statements of future business results or other forward-looking projections pertinent to the business of Anritsu. Implicit in reliance on these and all future projections is the unavoidable risk, caused by the existence of uncertainties about future events, that any and all suggested projections may not, come to pass. Forward-looking statements include but are not limited to those using words such as "believe", "expect", "plans", "strategy", "prospects", "forecast", "estimate", "project", "anticipate", "may" or "might" and words of similar meaning in connection with a discussion of future operations or financial performance.

Actual business results are the outcome of a number of unknown variables and may substantially differ from the figures projected herein.

Factors which may affect the actual business results include but are not limited to the economic situation in the geographic areas in which Anritsu conducts business, including but not limited to, Japan, Americas, Asia, and Europe, changes in actual demand for Anritsu products and services, increases or decreases in the competitive nature of markets in which Anritsu sells products or buys supplies, changing aptitudes at providing services, and exchange rates.

You also should not place reliance on any obligation of Anritsu to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Anritsu disclaims any such obligation.

#### Index

- 1. Mid term Business Plan GLP2023
- 2. Outline of our Business Segments
- 3. T&M Business Segment
- 4. PQA Business Segment
- 5. Financial Results for the 1st quarter of the Fiscal Year ending March 31, 2022

# 1. Mid term Business Plan GLP2023

#### 1-1. The vision towards FY2030



# Management vision:

# Beyond testing, beyond limits, for a sustainable future together

The stage to leap and grow for Anritsu Group.

Strengthen investment in growth as a financial strategy.

#### **2020VISION**

Sustainable growth with profit
10 years of establishing financial strength

#### **GLP2023**

3 years of growing towards 5G business peak.

3 years of nurturing new business.

# **FY2030**

The enterprise with stable revenue and profit through growth of 4 internal companies and Advanced Research Labs.

Aim to become a

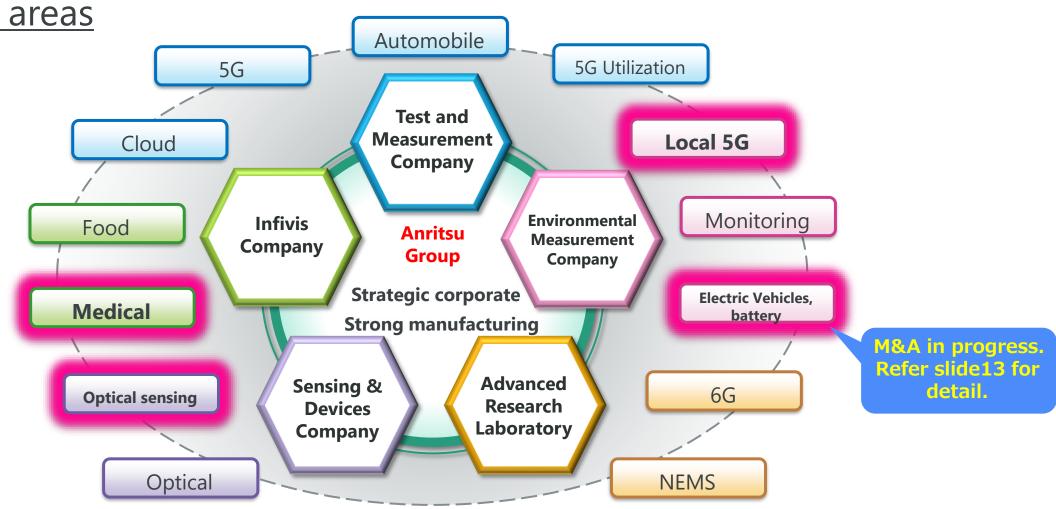
200 billion yen

company

# 1-2. GLP2023 priority area



Focus on developing four new areas



\*Infivis Company: Promotes PQA business

\*NEMS: Nano Electro Mechanical Systems

# 1-3. Revenue and operating profit plan (1/2)



#### **GLP2023**

8 %

	In	dicators	FY2020	FY2021	١	FY2023
	R	evenue	105.9 B Yen	114.0 B Yen		140.0 B Yen
	Op. profit		19.7 B Yen	20.5 B Yen		27.0 B Yen
	Op. margin		19 %	18 %		19 %
	Profit		16.1 B Yen	16.2 B Yen		20.0 B Yen
ROE		ROE	16 %	14 %	١	15 %
		Revenue	74.8 B Yen	82.0 B Yen	١	100.0 B Yen
T	<b>*</b> M	Op. profit	17.7 B Yen	18.5 B Yen		23.0 B Yen
		Op. margin	24 %	23 %		23 %
		Revenue	21.4 B Yen	23.0 B Yen		27.0 B Yen
ı	PQA	Op. profit	1.3 B Yen	1.8 B Yen		2.7 B Yen

6 %

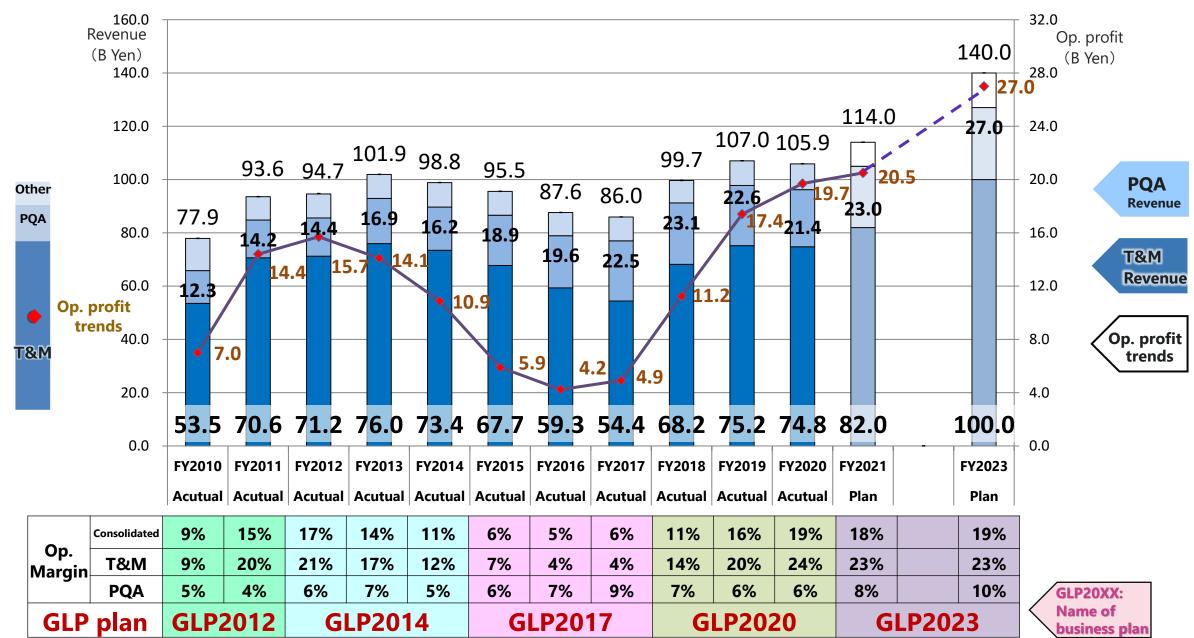
(Note) Exchange rate for GLP2023: 1USD=105Yen, 1Euro=125Yen

10 %

Op. margin

# 1-4. Revenue and operating profit plan (2/2)



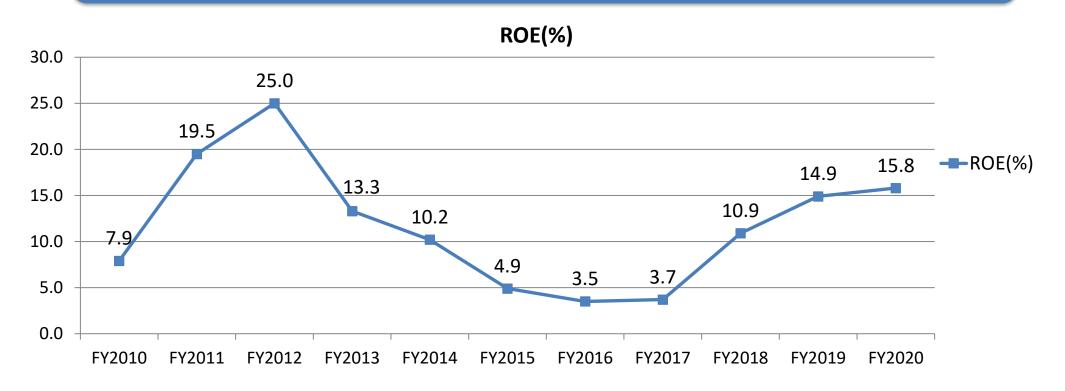


# 1-5. GLP2023: Financial strategy (1/3)



- Emphasis on growth, profitability and efficiency
- Strengthen growth investment
- Enhancement of shareholder returns

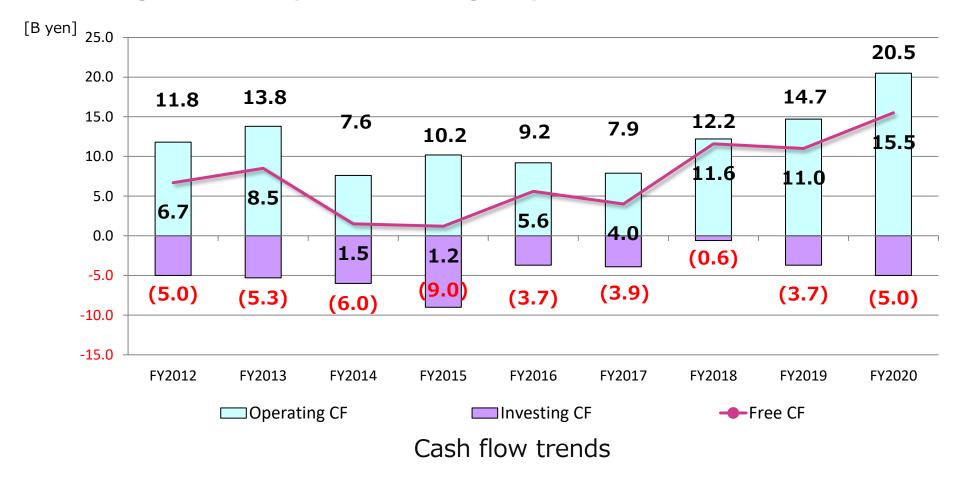
KPI to measure Corporate value: ROE≥15%



# 1-6. GLP2023: Financial strategy (2/3)



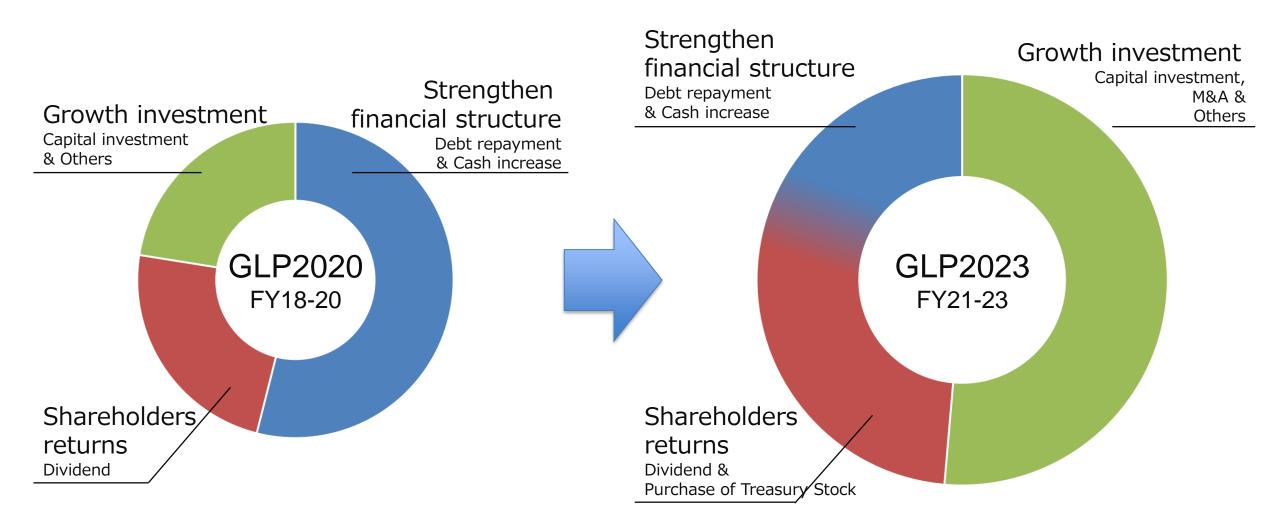
Promotion of cash flow management
 Improve operating CF by strengthening profit structure and promoting efficiency of working capital



# 1-7. GLP2023: Financial strategy (3/3)



Priority allocation of cash to growth investment



Allocation of operating cash flow (Actual)

Allocation of operating cash flow (Plan)

# 1-8. Shareholder Return Policy





# **Dividend Policy**

Distribute profits in accordance with its consolidated performance(Net profit) and by taking into account the total return

- 1. Take the basic approach of raising dividends on equity (DOE) in accordance with the increase in consolidated profits for the fiscal year
- 2. Aim at a consolidated dividend payout ratio of 30 percent or more

Flexibly provide shareholder returns taking into account the total return ratio

# 1-9. Acquisition of Shares of TAKASAGO,LTD.



Anritsu has listed "electric vehicles and battery measurement" as one of the key growth areas in our mid-term business plan GLP2023. Takasago who has industry leading electrical energy control technology for high voltage, large current and large capacity as well as business relationships with leading customers in the industry as the core to cultivate this area.

By synergizing them with test system design technologies and global operation Anritsu has built in its test and measurement business, we will support the test needs of customers in the advancing and globalizing field of electric vehicles and battery measurement aiming contribution to the realization of carbon neutral societies.

#### Overview of Takasago:

Name TAKASAGO,LTD.

Head office 1-24-16, Mizonokuchi, Takatsu-ku, Kawasaki-shi, Kanagawa, Japan

Representative Norihiko Uesugi

Main business R&D, manufacture and sales of power supply, electronic load equipment,

information communication equipment, communication control equipment,

and their application system products.

Capital stock JPY 120 million Establishment July 25, 1950

#### Schedule:

Date of stock purchase agreement July 30, 2021

Month of share transfer January 2022 (planned)

# 1-10. Sustainable Development Goals (SDGs)





#### **Goals and initiatives**

#### GLP2023:KPI

Long-term plans and initiatives to reduce greenhouse gas emissions

- Greenhouse gases (Scope 1+2): 23% reduction compared to FY2015
- Greenhouse gases (Scope 3): 13% reduction compared to FY2018
  - **...30% reduction by FY2030**

Increase in the share of in-house power generation (PGRE 30)

In-house power generation ratio: 13% or more (compared to FY2018 power consumption)
 To be increased to around 30% by 2030



# Promoting diversity management

- Advancement of women: A proportion of women in senior management positions of 15% or more
- Advancement of the elderly: Employment until the age of 70 and the establishment of a new compensation packages
- Promote employment of physically challenged people: Achieve the legally mandated employment rate of 2.3% through job development

Promoting global CSR procurement

- Strengthening of supply chain due diligence: A cumulative total of 10 or more companies, over 3 years
- Developing awareness on CSR procurement to suppliers at least twice per year, and provide training at least once each year



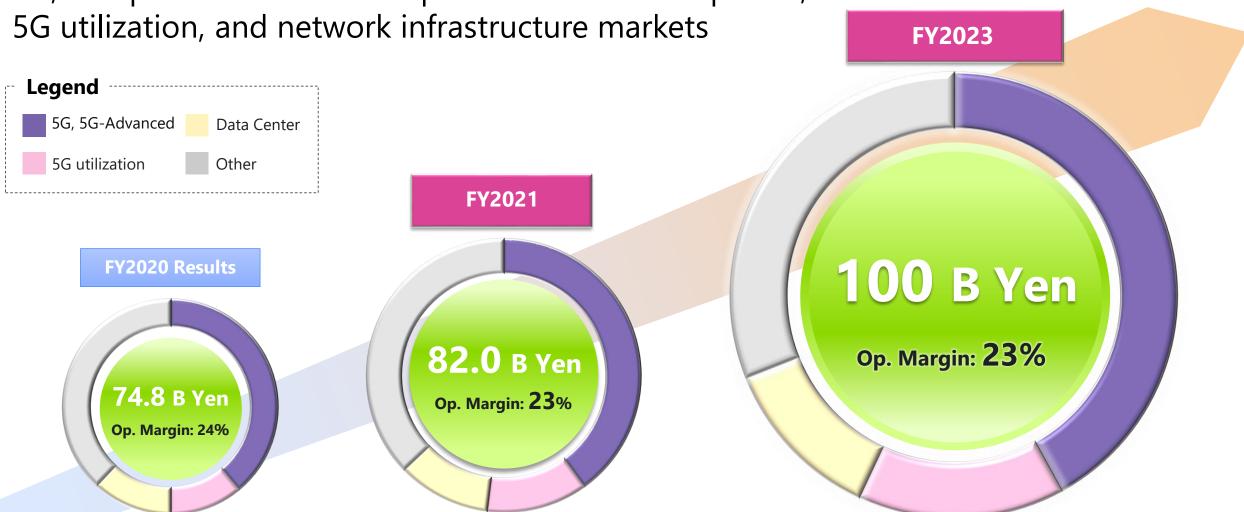
#### Improving global governance

- Promoting the diversity of the Board of Directors, outside director ratio 50% or more
- Promoting the establishment of an internal control system at overseas subsidiaries
- All overseas subsidiaries meet the criteria of Control Self-Assessment (CSA)

# 1-11. T&M: GLP2023 revenue and operating profit plan



Capture demand over three years leading up to the peak of 5G, and promote business expansion in the smartphone, 5G utilization, and network infrastructure markets



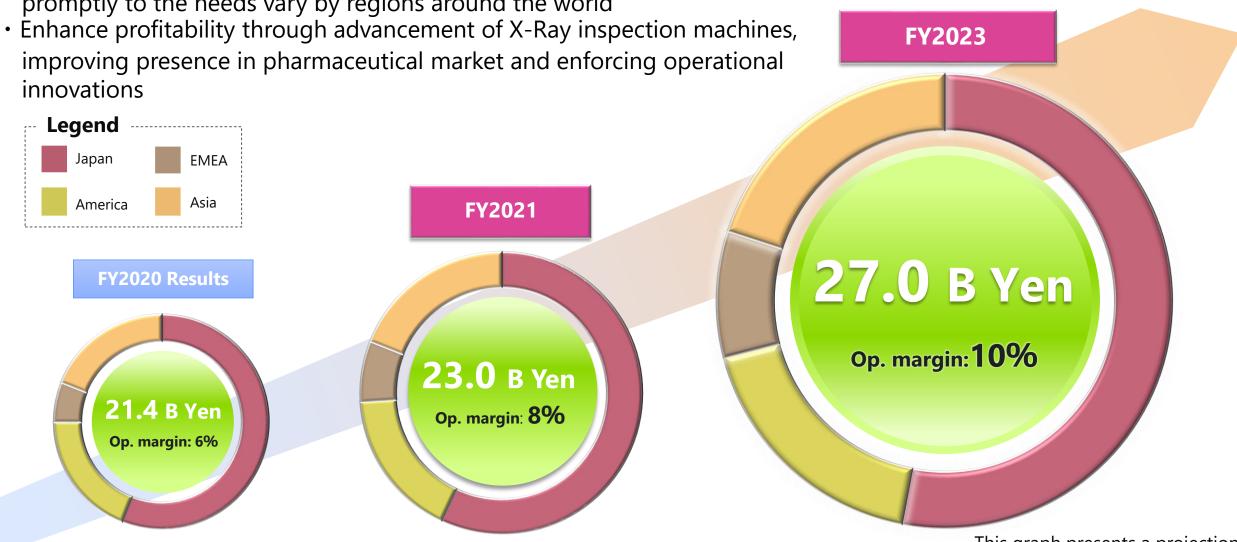
This graph presents a projection.

# 1-12. PQA: GLP2023 revenue and operating profit plan



• Creation of solutions that resolve critical issues of customers

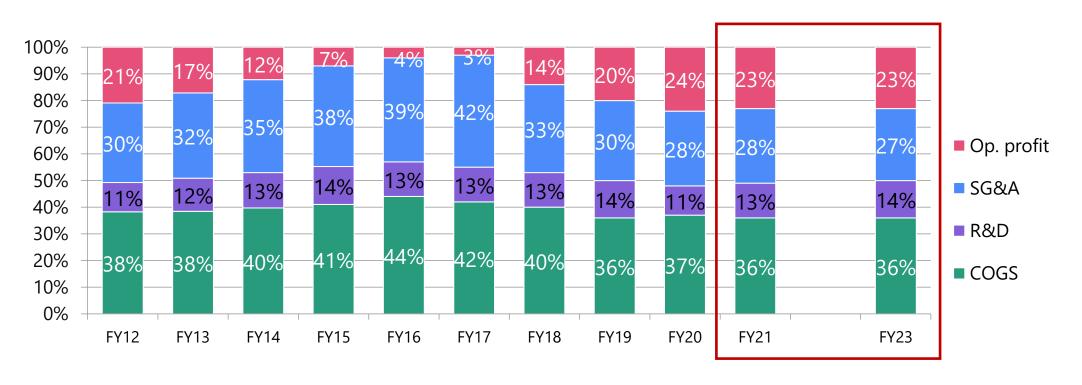
 Value creations beyond "measurement" and respond adequately and promptly to the needs vary by regions around the world



This graph presents a projection.

#### 1-13. T&M: Profit structure model





#### **Cost structure improvement measures**

- Introduction of high value added solutions (professional services, software)
- Thorough enforcement of development ROI & ROIC management (\*1)
- SG&A expenses: Organizational structure and optimal allocation of human resources in response to changes in customer trends

<sup>\*1:</sup>KPI target index for R&D investments is an R&D ROI(gross profit / R&D investment value) of 4.0times or higher.

# 2. Outline of our Business Segments

# 2. Outline of our Business Segments



#### T&M

#### **Evolution and advances of networked society**

- ▶ Mobile : 5G, 5G utilization
- ▶ Network Infrastructure : Data Center, Optical NW, Wireless NW
- ▶ Electronics : Base Station construction and maintenance,

Electronics parts, Wireless equipment



#### Food safety

- X-ray inspection systems
- ▶ Metal Detector
- ▶ Checkweighers

#### **Others**



Environmental measurement

▶ Sensing & Device



105.9 billion Yen consolidated revenue in FY2020

T&M 71%	POA 20%	Out 00/	
Mobile 59%	Network Infrastructure 25% Electronics 16%	PQA 20%	Other 9%

#### 23.8 billion Yen consolidated revenue in FY2021 1Q

T&M 71	PQA	Others		
Mobile 56%	Network Infrastructure 25%	Electronics 19%	21%	8%

# ( Revenue of T&M business by region ) Revenue in FY2020

Japan 18%	Asia & Others 47%	Americas 23%	EMEA 12%
-----------	-------------------	--------------	----------

#### Revenue in FY2021 1Q

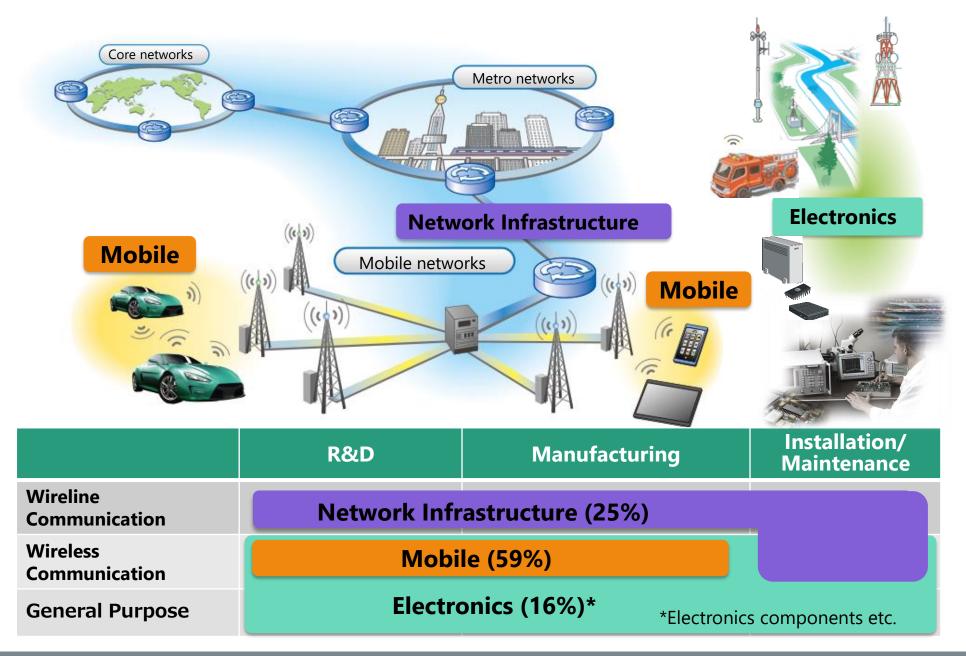
Japan	Asia & Others	Americas	EMEA
16%	46%	23%	15%

T&M: Test & Measurement PQA: Products Quality Assurance

# 3. T&M Business Segment

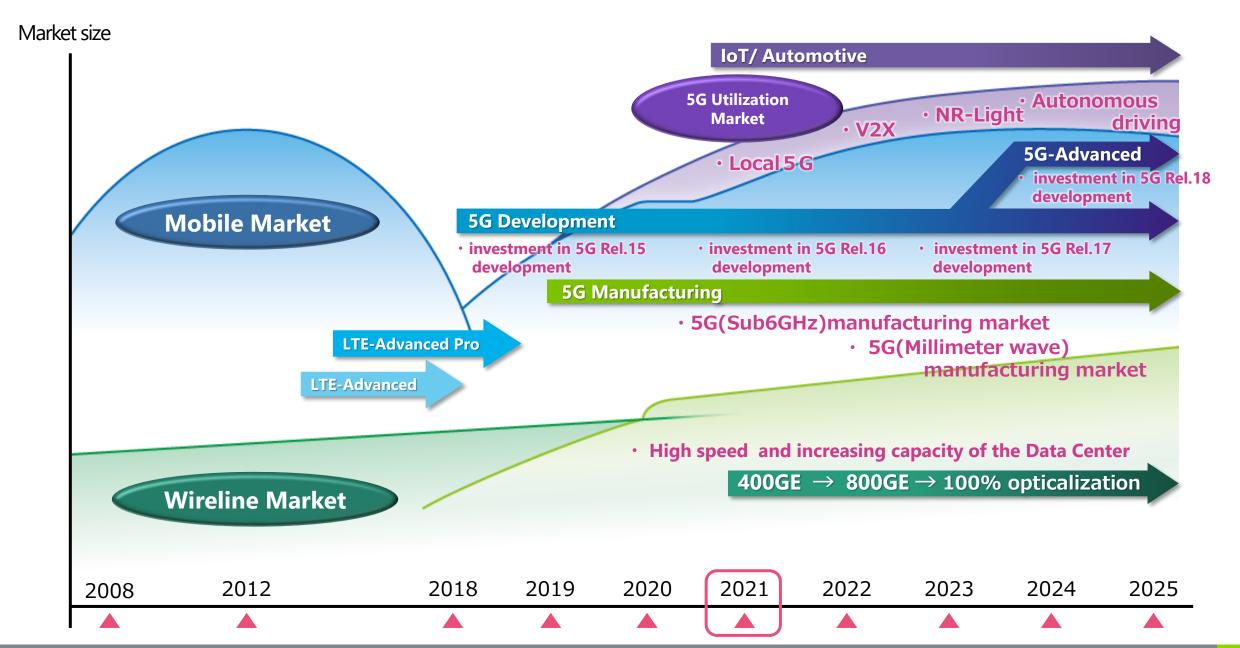
## 3-1. T&M Business Areas





# 3-2. T&M: Mobile market trends and Business opportunity





#### 3-3. Current Worldwide 5G Situations





Sub6: 5G coverage in Europe trending upward. As of March 31, 2021, 5G services were launched in 24 of the 27 EU countries.

Millimeter wave: Frequency auctions have been completed in countries including Italy and Finland.



450 million 5G subscribers (as of May 31, 2021)

Sub6: 770,000 Base Stations have been installed as of December 31, 2020. Plans to install 600,000 more during 2021.

Millimeter wave: Trials are to be conducted at the venue of Beijing Olympics

#### South East Asia/Oceania

Sub6: 5G services were launched in countries such as Australia, Thailand, and Philippines during 2020

Millimeter wave: Services were launched in Australia in May 2021



#### Korea

15.84 million 5G subscribers (as of May 31, 2021)

Sub6: 115,000 Base Stations have been installed; more than 90% of population covered

Millimeter wave: Scheduled launch of services in 2020 have been delayed; launch date to be determined



#### US

19.96 million 5G subscribers in North America (as of December 31, 2020)

Sub6: Verizon will launch services using C-band in 1Q 2022.
Plans to cover 100 million people by March 2022.
Millimeter wave: Verizon will expand number of sites from 14,000 to 30,000 by the end of 2021.



#### Japan

14.19 million 5G subscribers (as of March 31, 2021)

Sub6: All major cities in all 47 prefectures are covered.

DoCoMo has installed a cumulative total of 20,000

Base Stations as of March 31, 2021 (250,000 LTE Base Stations installed).

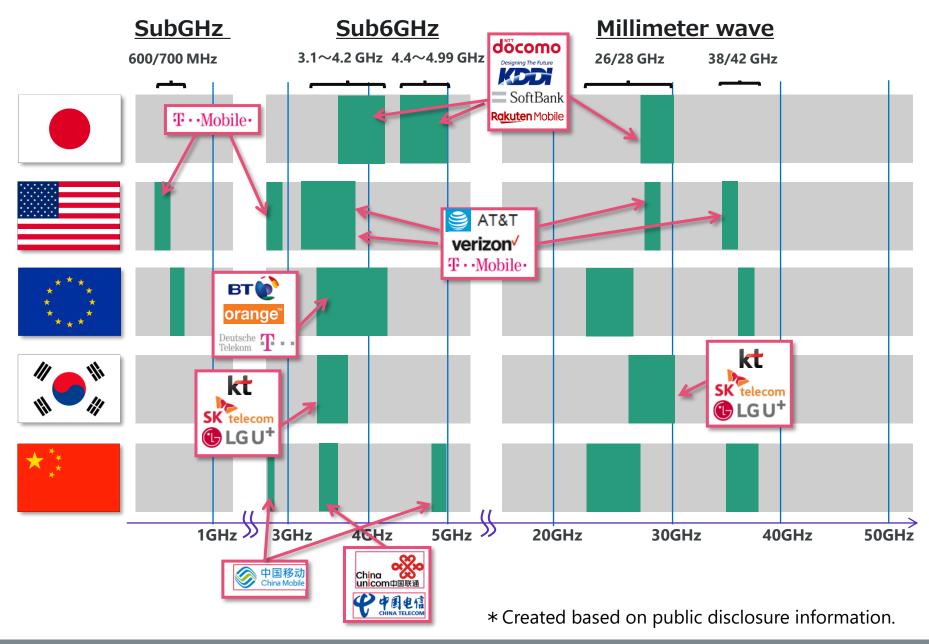
Millimeter wave: Four phone carriers have launched services from the latter half of 2020.

\*Source: Prepared Anritsu based on publicly available information as of July 2021

### 3-4. 5G Band Allocations in the World



24



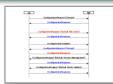
#### 3-5. 5G terminal development/manufacturing process and test solutions



#### **Sub6 / Millimeter wave**

Chipset development and commercial handset development

Verification of Core Technologies at Chipset Vendors



Protocol



Baseband Chipset / RF Front End

Evaluation of Functions &

**Performance at** 

**UE Vendors** 



Evaluation of Functions & Performance

#### **Sub6 / Millimeter wave**

**Commercial handset development** 

Conformance Test at UE Vendors & Test Houses

Conformance Test (CT)



Acceptance Test at Carriers & Test Houses

Carrier Acceptance Test (CAT)



Sub6



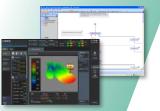
**Mass production** 

Mass Production Test at UE Vendors & EMS



RF Calibration & Inspection





MT8000A
Radio Communication
Test Station



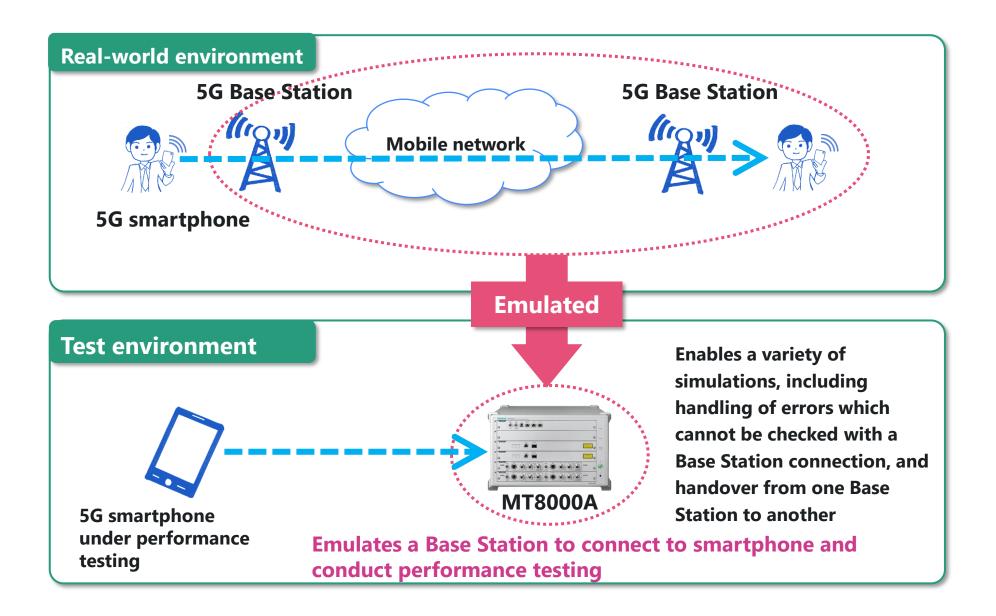




MT8870A
Universal Wireless
Test Set

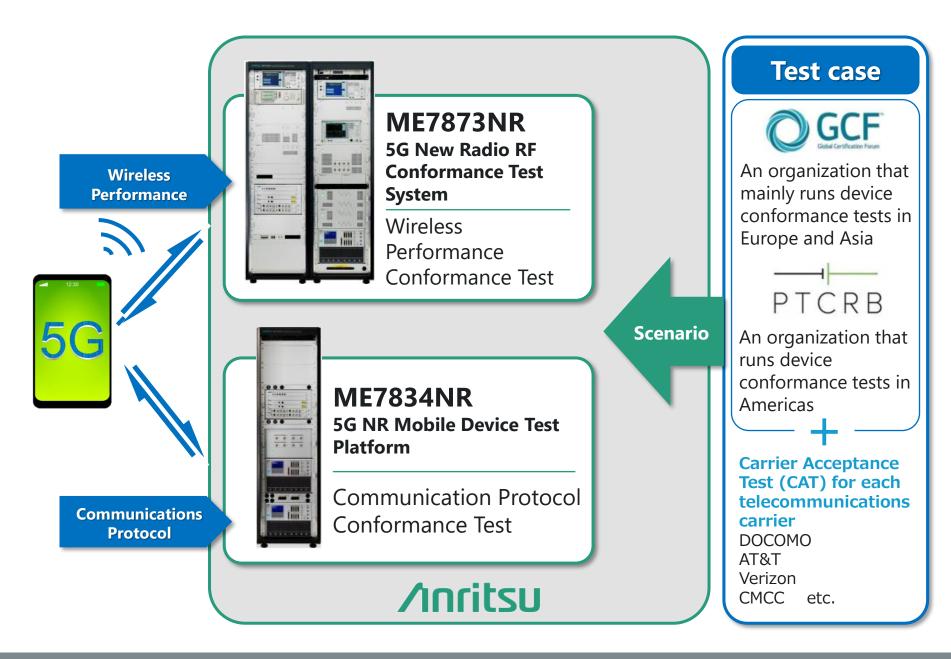
## 3-6. Role of MT8000A





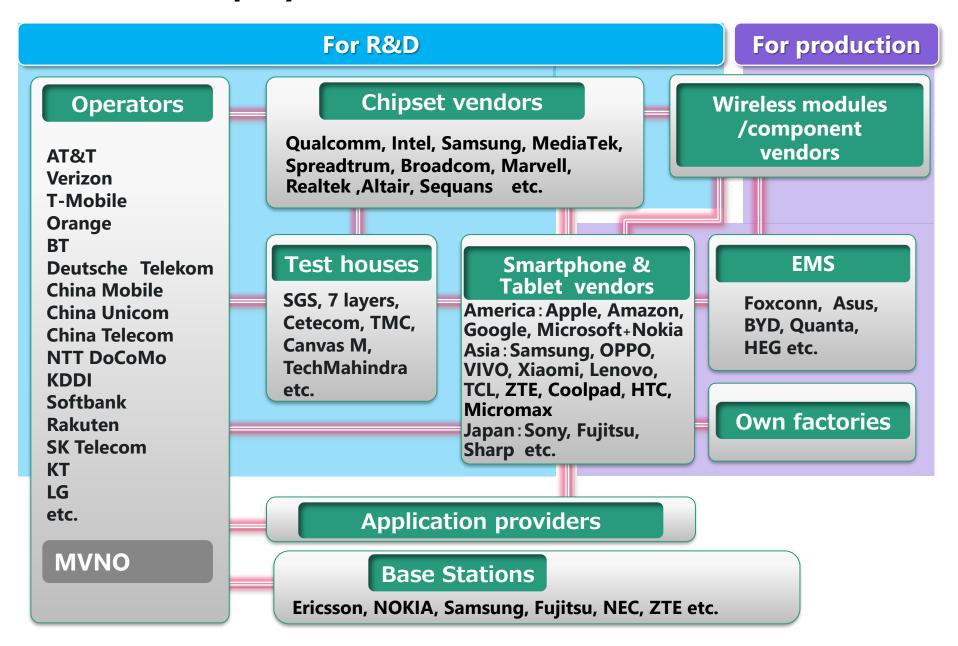
### 3-7. 5G Test Solutions Conformance Test





## 3-8. Food chain and players in mobile telecom market

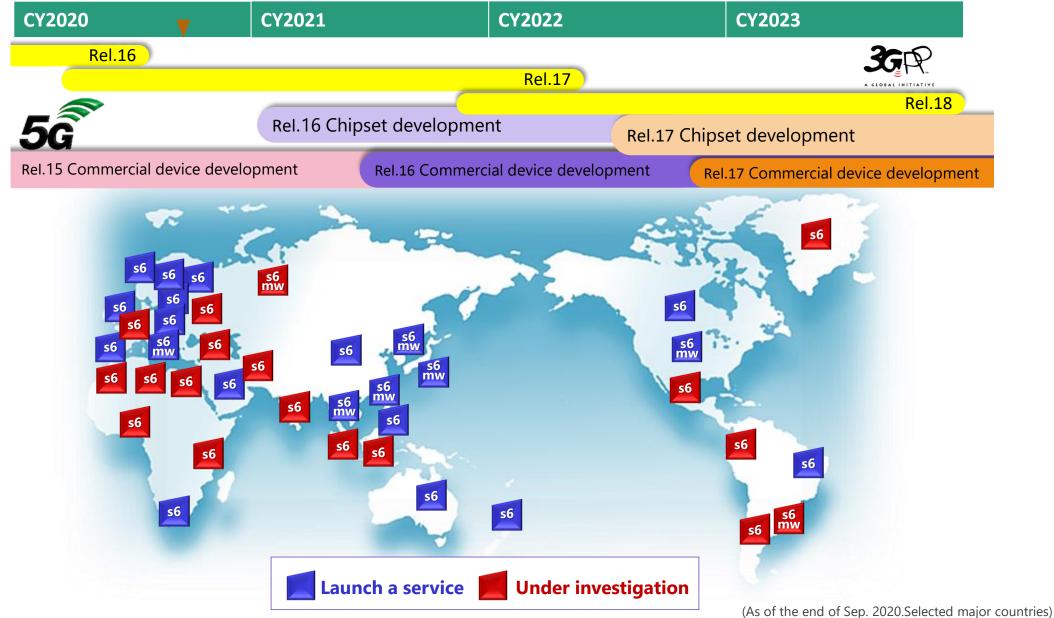




# 3-9. Roadmap of 5G

\* Created by Anritsu referring to publicly available information

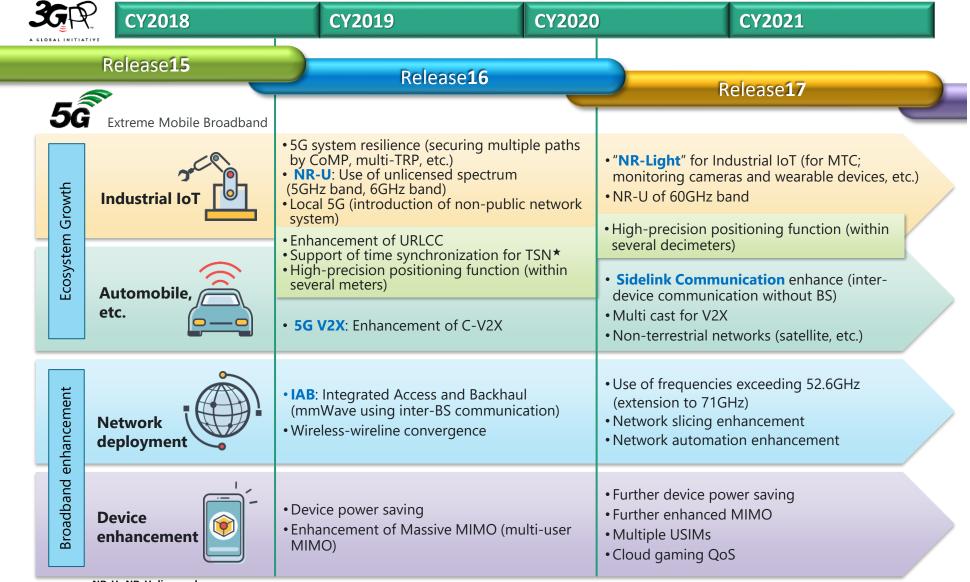




### 3-10. Digest of Rel-16 & Rel-17



\*Source: Prepared by the Company based on publicly available information

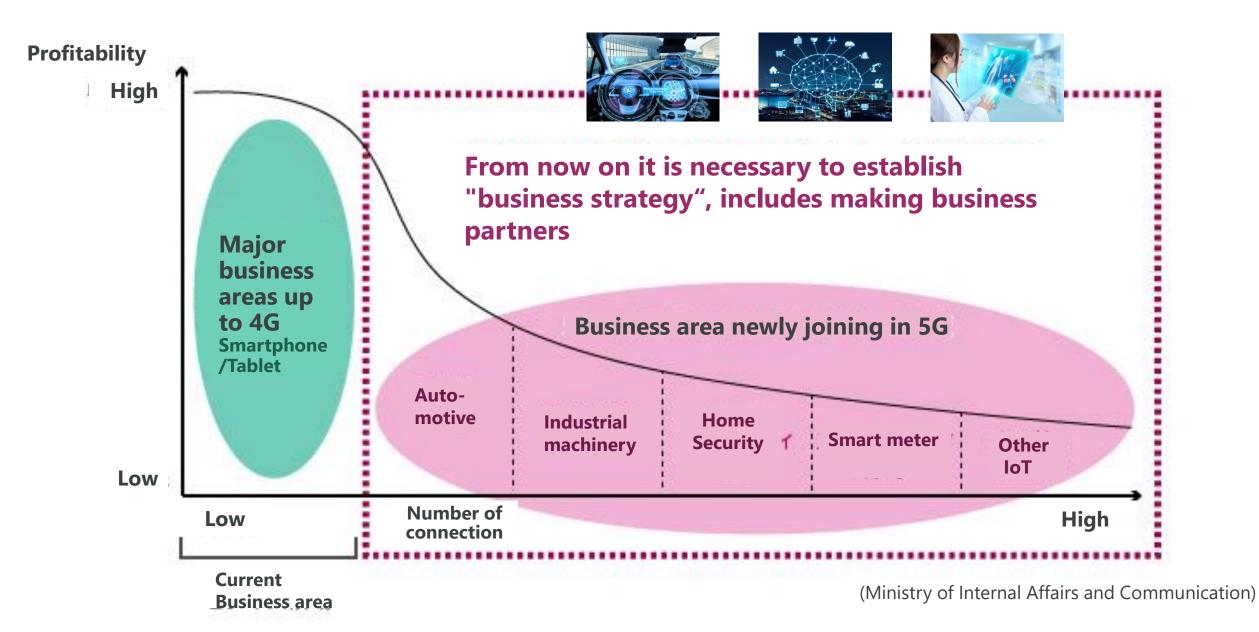


NR-U: NR-Unlicensed

<sup>\*</sup>TSN (Time Sensitive Networking): A standard originally used for networks that guarantees synchronization of time and real-time performance in Ethernet communications.

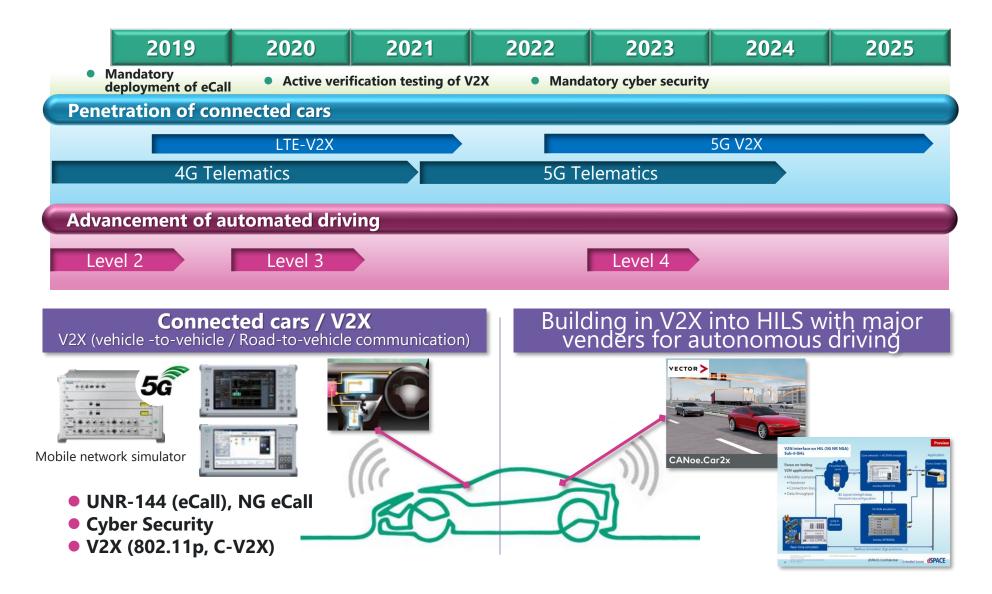
#### 3-11. 5G will become the infrastructure of social innovation





# 3-12. Introduction of new technologies in the automotive market and Anritsu's initiatives

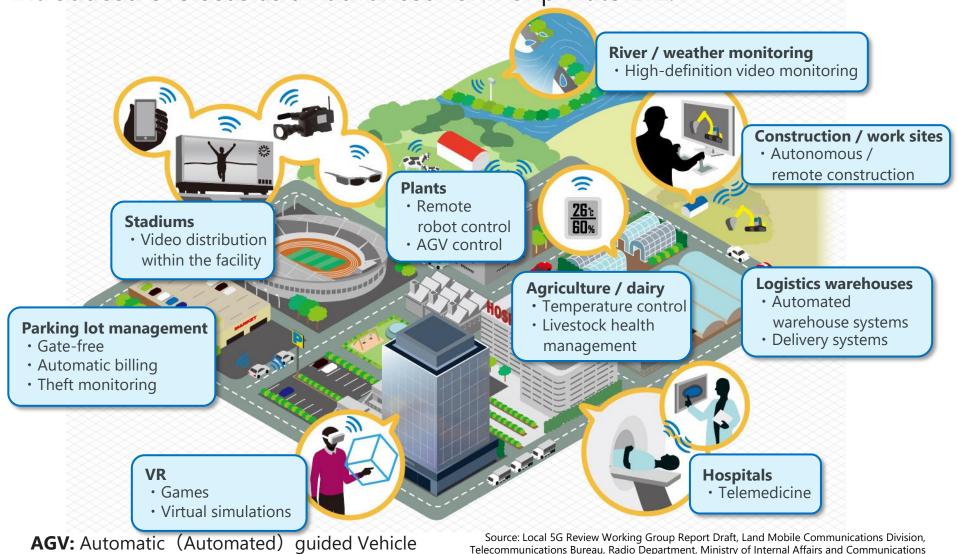




#### **3-13. Private 5G**



Local 5G has been newly introduced in Japan and is expected to be introduced overseas as an advanced form of private LTE.



## 3-14. Application of Local 5G in Anritsu Products



34

#### Latency measurements in remote operations

Measurement of latency in remote operation of robots



**MT1000A Network Master Pro** 

#### Measurement of cellular interference

Measurement of cellular interference due to overlapping local 5G areas



**MS2090A Field Master Pro** 

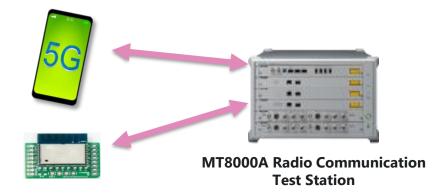
# Base Station performance testing and communication area measurements



ML8780A/81A Area Tester

#### **Device and sensor module performance testing**

Testing of device and sensor module radio characteristics and protocol



# 3-15. 5G Test Solutions Base-Station Installation and Maintenance



#### **5G NR Base-Station Field Performance Measurements and Coverage Mapping**

#### Field Master Pro MS2090A

- Frequency Range: 9 kHz to 9/14/20/26.5/32/43.5/54 GHz
- Supports RF measurements of GSM, LTE, and 5G Base Stations, as well as 5G demods.
- TX spurious up to 54 GHz

# Usage: 5G NR Base Station Measurement 3GPP TS 38.104 V15 gNB Base Station Performance Evaluation

- · Frequency error · Occupied bandwidth
- · Time offset · Adjacent channel leakage ratio
- · Cell/Sector ID · Tx spurious up to 12.75 GHz
- · Modulation quality · EIRP
- · Unwanted emissions · Synchronization Signal Block (SSB)
- · FR1 & FR2 · Up to 64 beams supported

#### **Usage: 5G Coverage Mapping**

Plot indoor and outdoor coverage maps from 5G NR gNB. Displayed measurements include channel power, EIRP, and RSRP.





# 3-16. Local 5G Joint Venture Company "AK Radio Design" Begins Operations



#### **Services Provided**

#### **Simulation analysis services**

- Radio wave propagation simulations necessary to design local 5G area
- Interference adjustment and consulting services for service area verification/design

#### **Measurement Services**

- Interference evaluation, service area measurement, base-station performance evaluation, and network evaluation at the actual field where local 5G is introduced
- Support for benchmarking base-station equipment and devices

#### **Lab Tour & Utilization Services**

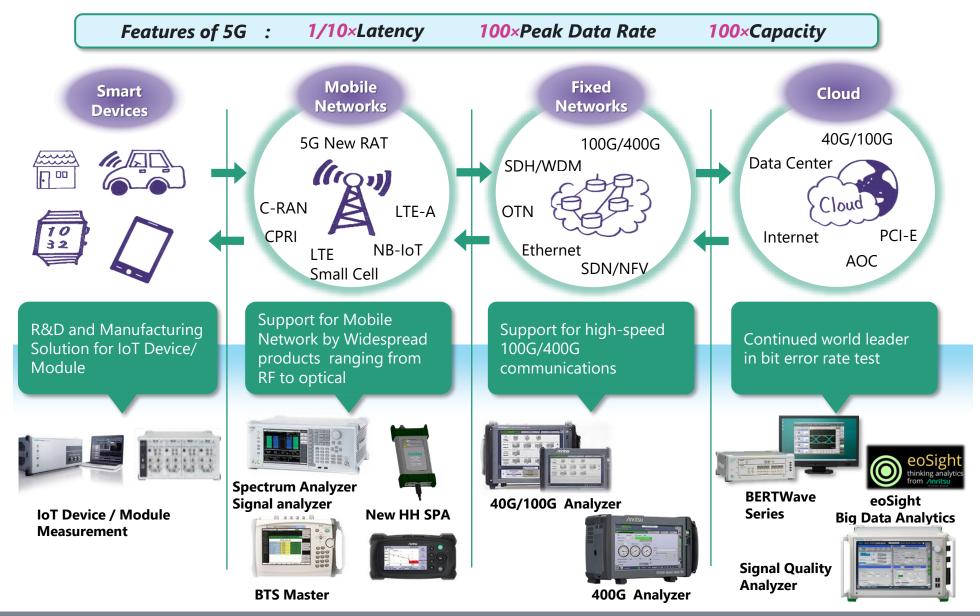
- Promoting understanding of local 5G usage and quality assurance methods using Anritsu 5G LAB
- Provision of environment and opportunities for verification experiment under actual local 5G environment



Hirokazu Hamada President Anritsu Corporation Shota Hattori Chairman of the board Kozo Keikaku Engineering Inc.

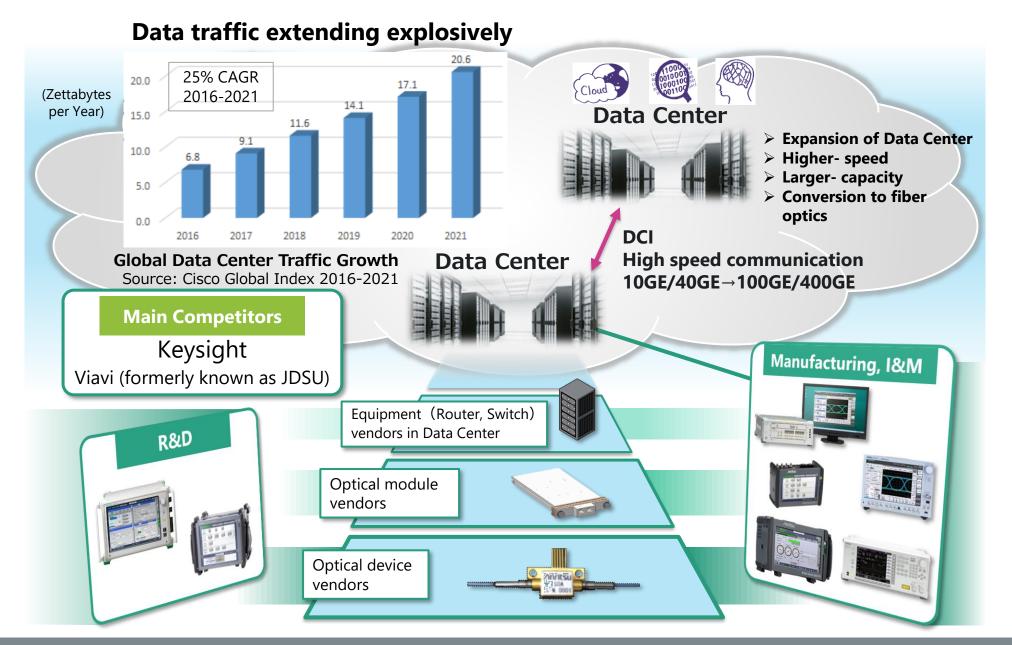
# 3-17. Contributing to the establishment of 5G network infrastructure





## 3-18. Test Solutions for support of Cloud Service expanding

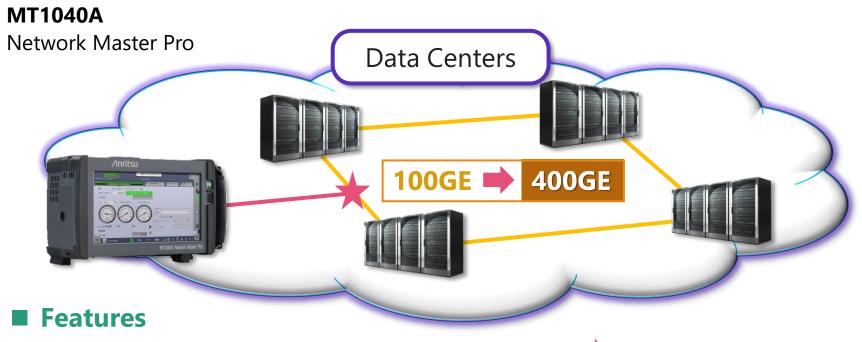




# 3-19. Speeding Up Solutions for Data Centers



#### Portable measuring instrument supporting 400G Ethernet



Verification speeding up Data Centers upgrades 100G Ethernet 400G Ethernet

#### **■ Target markets**

Communication networks and Data Centers

#### **■ Target customers**

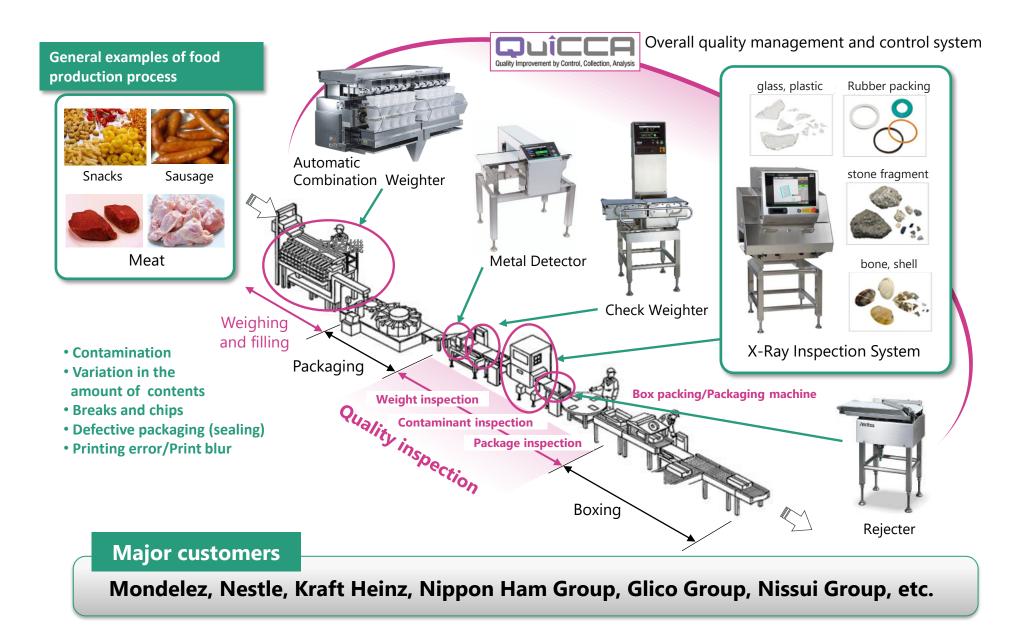
 Telecom carriers, communication network installers, communication equipment maintainers, network device vendors

# 4. PQA Business Segment

# 4-1. PQA business segments (Products Quality Assurance)



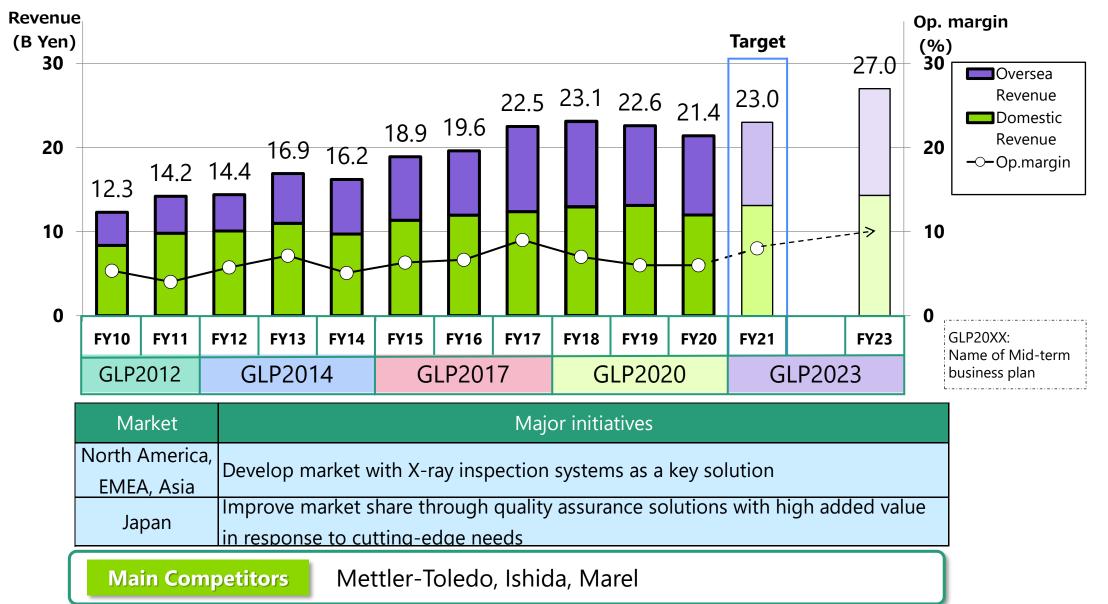
41



# 4-2. The growing PQA business



42



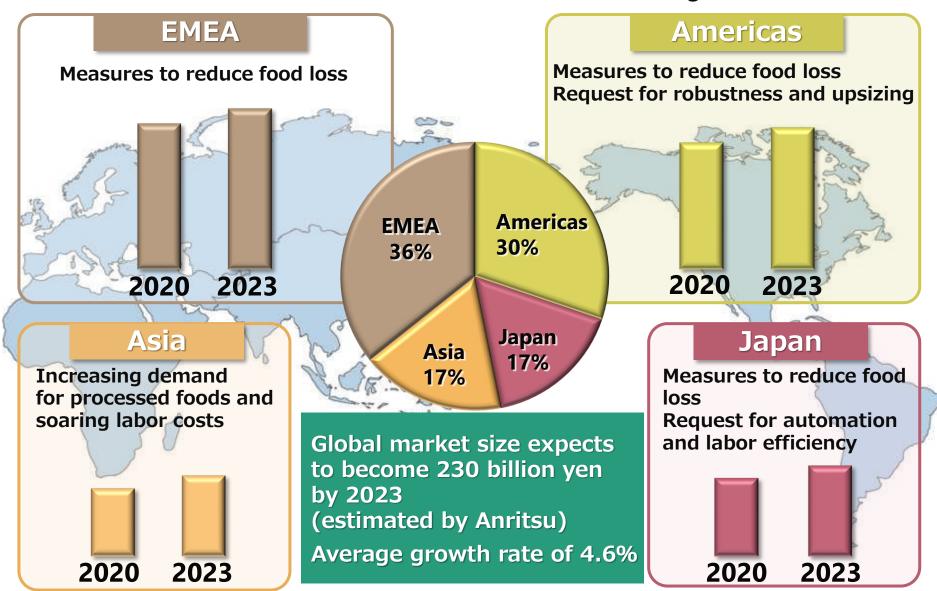
\*Anritsu group announced the FY2023 Forecast on April 27th, 2021.

## 4-3. PQA Business: Current Status of the PQA Market and Outlook



43

Main market drivers and the market size of each region

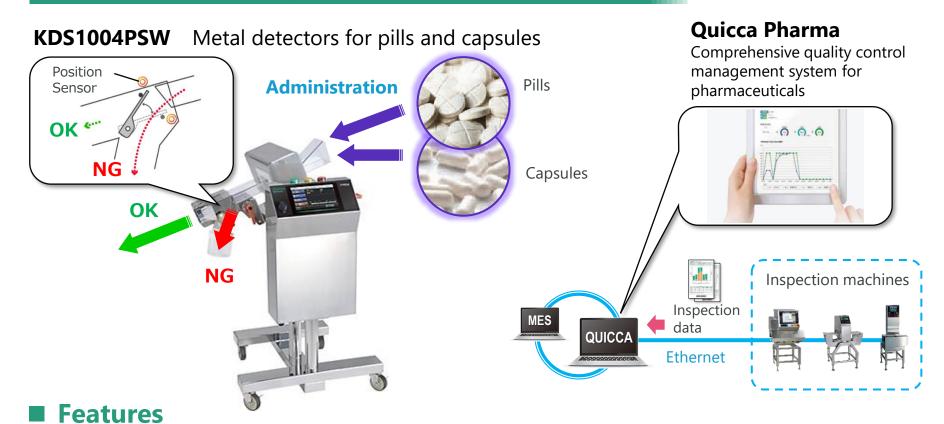


### 4-4. Solutions for pharmaceutical market



44

#### Metal detectors for pharmaceutical market



Detects metal in pills and capsules with high sensitivity and determines pass/fail.

• Can detect metal fragments down to 0.1 mm

#### **■ Customers**

Pharmaceutical companies

5. Financial Results for the 1st quarter of the Fiscal Year ending March 31, 2022

# 5-1. Consolidated performance - Financial results -



Unit: Billion Yen

Although revenue and profit declined year-on-year, orders are progressed as planned in full-year forecast

	Offic. Billion feri			
International Financial Reporting Standards(IFRS)	FY2020 (Apr. to June)	FY2021 (Apr. to June)	YoY	YoY (%)
Order Intake	29.0	28.1	(0.9)	-3%
Revenue	25.7	23.8	(1.9)	-7%
Operating profit (loss)	5.1	3.1	(2.0)	-40%
Profit (loss) before tax	5.1	3.1	(2.0)	-40%
Profit (loss)	3.5	2.1	(1.4)	-41%
Comprehensive income	3.7	2.3	(1.4)	-37%

(Note) Numbers for FY2020 and FY2021 are rounded off to the first decimal place in each column.

## 5-2. Consolidated performance - Results by business segment -



T&M: Demand for 5G development was strong. However, semiconductor shortage impacted sale

PQA: Sales recovered in areas where the COVID-19 situation has improved

Unit:				Unit: Billion Yen	
International Financial Reporting Standards (IFRS)		FY2020 (Apr. to June)	FY2021 (Apr. to June)	YoY	YoY (%)
T&M	Revenue	19.3	16.8	(2.5)	-13%
	Op. profit (loss)	4.9	2.9	(2.0)	-42%
PQA	Revenue	4.4	5.1	0.7	16%
	Op. profit (loss)	0.1	0.4	0.3	173%
Othors	Revenue	2.0	1.9	(0.1)	-6%
Others	Op. profit (loss)	0.2	0.0	(0.2)	-75%
Adjustment	Op. profit (loss)	(0.2)	(0.2)	0.0	-
Total	Revenue	25.7	23.8	(1.9)	-7%
	Op. profit (loss)	5.1	3.1	(2.0)	-40%

(Note1) :Numbers for FY2020 and FY2021 are rounded off to the first decimal place in each column.

(Note2) : Adjustment includes elimination of inter-segment transactions and non distributed company-wide expenses of each business segment.

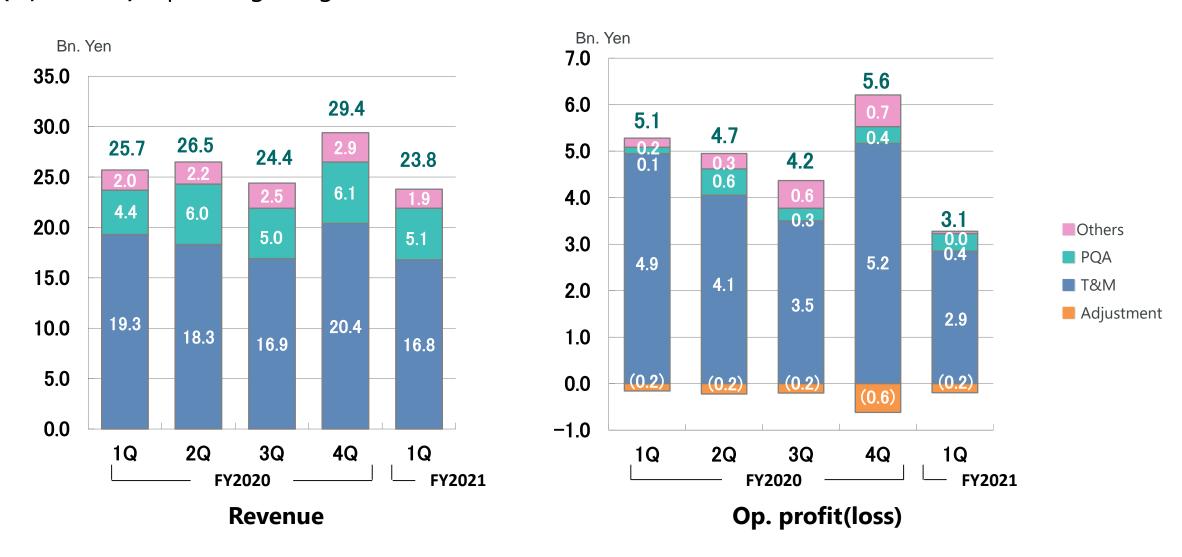
T&M: Test & Measurement PQA: Products Quality Assurance

### 5-3. Consolidated performance - Revenue and Op. profit by quarters -



48

1Q(Apr.-Jun.) Operating margin: Consolidated13%, T&M17%, PQA7%



Note: Numbers are rounded off to the first decimal place in each column.

# 5-4. Overview of operations by business segment



S	egment FY2021	(April to June)				
	■ T&M: Steady progress for both 5G commercialization schedule and development of high-speed Data Centers					
	Mobile	5G development demand remains steady				
	Network Infrastructure	Investment for Data Centers and others remains steady				
	Asia & Others/ Japan	Strong investment in commercialization of 5G				
	Americas	We expect recovery in demand due to the installation of Sub6GHz (C-band) Base Stations starting in the latter half of the year.				
	▶ <b>PQA</b> : Demand recovered in areas where the COVID-19 situation has improved, such as Asia and the Americas					

T&M: Test & Measurement PQA: Products Quality Assurance

#### 5-5. Transition of Order Intake



T&M: 10% decrease year on year, 2% increase quarter on quarter

PQA: 25% increase year on year

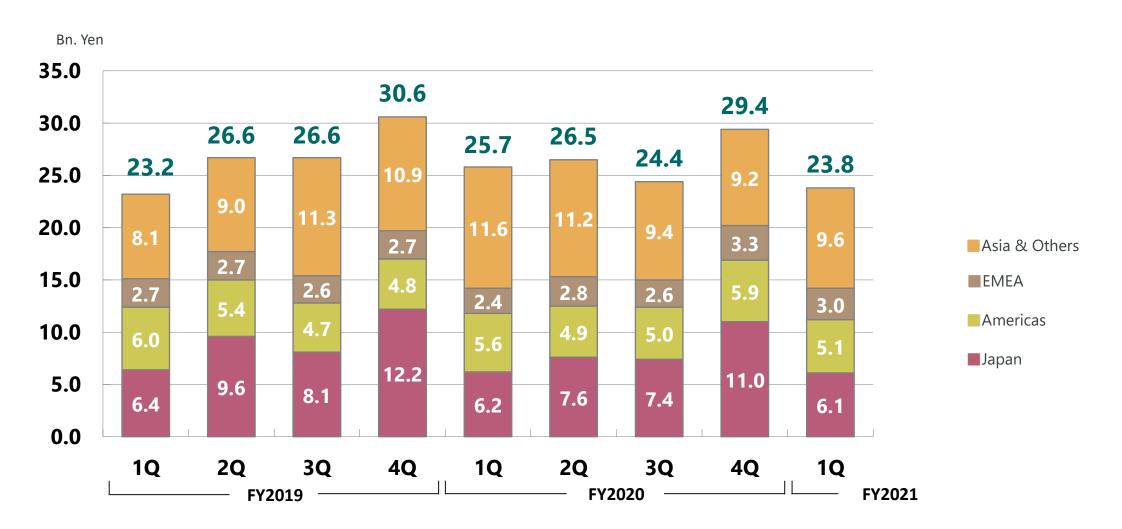


Note: Numbers are rounded off to the first decimal place in each column.

# 5-6. Transition of Revenue by Region



▶ 5G related demand in Asia remains steady



Note: Numbers are rounded off to the first decimal place in each column.

#### 5-7. Cash Flow



Departing cash flow margin ratio was 33.2%

#### FY2021 1Q

Operating CF: 7.9 Bn. Yen

Investing CF: (1.3) Bn. Yen

Financing CF: (3.6) Bn. Yen

#### Free Cash Flow

Op.CF + Inv. CF: 6.6 Bn. Yen

#### Cash at the end of period

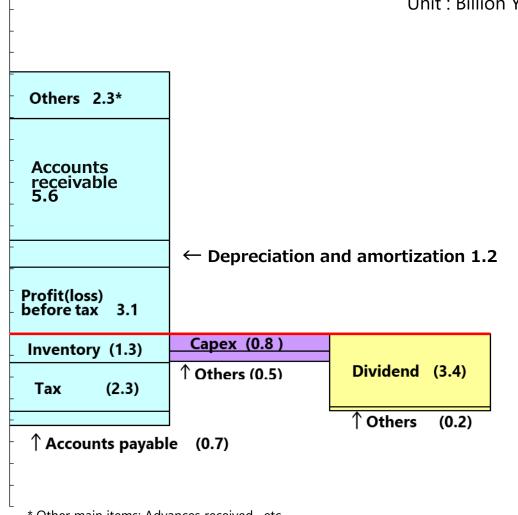
53.1 Bn. Yen

#### **Interest-bearing debt**

5.8 Bn. Yen

#### **Details**

Unit: Billion Yen



<sup>\*</sup> Other main items: Advances received, etc.

Inv. CF (1.3)

Fin. CF (3.6)

Note: Numbers are rounded off to the first decimal place in each column.

Op. CF 7.9

# 5-8. Forecast for full year of FY2021 (Consolidated)



Remains unchanged from original forecast published on April 27, 2021

					Unit: Billion Yen
		FY2020	FY2021		
		Actual	Forecast	YoY	YoY(%)
Revenue		105.9	114.0	8.1	8%
Operating profit (	loss)	19.7	20.5 0.8 4%		4%
Profit (loss) before	e tax	19.8	20.5 0.7 3%		3%
Profit (loss)		16.1	16.2	0.1	0%
TO.N 4	Revenue	74.8	82.0	7.2	10%
T&M	Op. profit (loss)	17.7	18.5	8.0	4%
DOA	Revenue	21.4	23.0	1.6	7%
PQA	Op. profit (loss)	1.3	1.8	0.5	34%
Otherns	Revenue	9.7	9.0	(0.7)	-7%
Others	Op. profit (loss)	1.8	1.2	(0.6)	-33%
Adjustment	Op. profit (loss)	(1.2)	(1.0)	0.2	-

Reference : Exchange rate : FY2020 (Actual) 1USD=106 yen, 1EURO=123 yen FY2021(Forecast) 1USD=105 yen, 1EURO=125 yen

Note: Numbers are rounded off to the first decimal place in each column.

#### 5-9. Shareholders returns



54

Purchase of Treasury Stock:

Total amount of purchase in yen: 5,000,000,000 yen (upper limit) Number of shares that can be purchased: 3,000,000 shares (upper limit)

Purchase period: From August 2, 2021 to March 31, 2022

Dividend forecast: 40 yen (FY2021)

