Continuous Growth with Sustainable Superior Profits

Anritsu Corporation September, 2020





TSE cord: 6754 https://www.anritsu.com





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.

Agenda

I . Mid term Business Plan GLP2020 and Business Strategy

- 1. Basic Policy of Management Strategy
- 2. Outline of our business segments
- 3. Basic Policy of medium and long term business strategy
- 4. Set out for Beyond2020

II. T&M business segment

- 1. T&M: Profit structure improvement targets
- 2. T&M: Mobile market trends and Business opportunity
- 3. Industrial Test Solutions
- 4. Network Reshaping Test Solutions

II. PQA Business segment

- **IV-1. Financial Strategy**
- IV-2. Shareholder Return Policy
- **IV-3.** Corporate Philosophy and Sustainability Policy
- **IV-4. Corporate Governance System**
- **IV-5.** Introduction to the Advanced Technology Development Lab
- V. Financial Results for the 1st quarter of the Fiscal Year ending March 31, 2021



I. Mid term Business Plan GLP2020 and Business Strategy

I -1. Basic Policy of Management Strategy

Prosecute the policy "Continuous profitable growth"

Make our best to accomplish 2020VISION/ GLP2020



2020 VISION

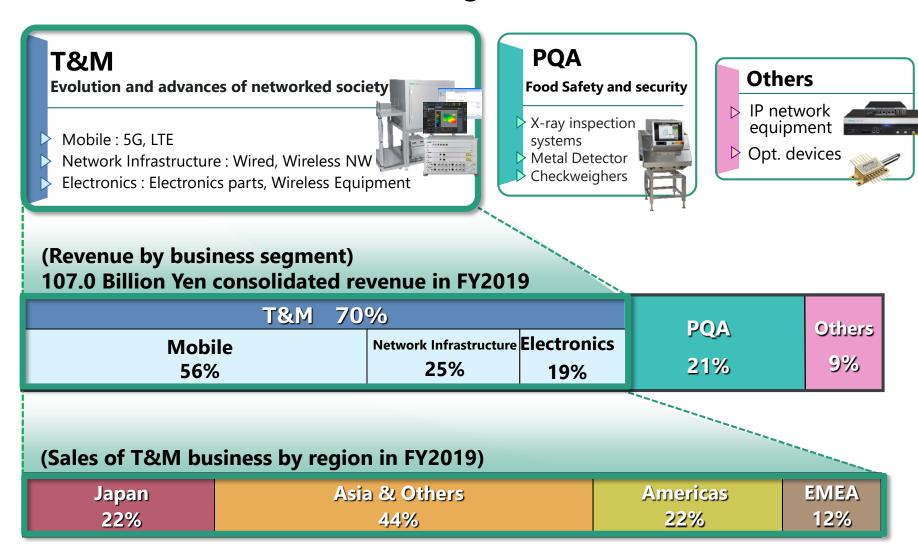
To be a global market leader

- Creating the value that only Anritsu can deliver
- Building a world-class, robust income structure

To create new business through emerging business

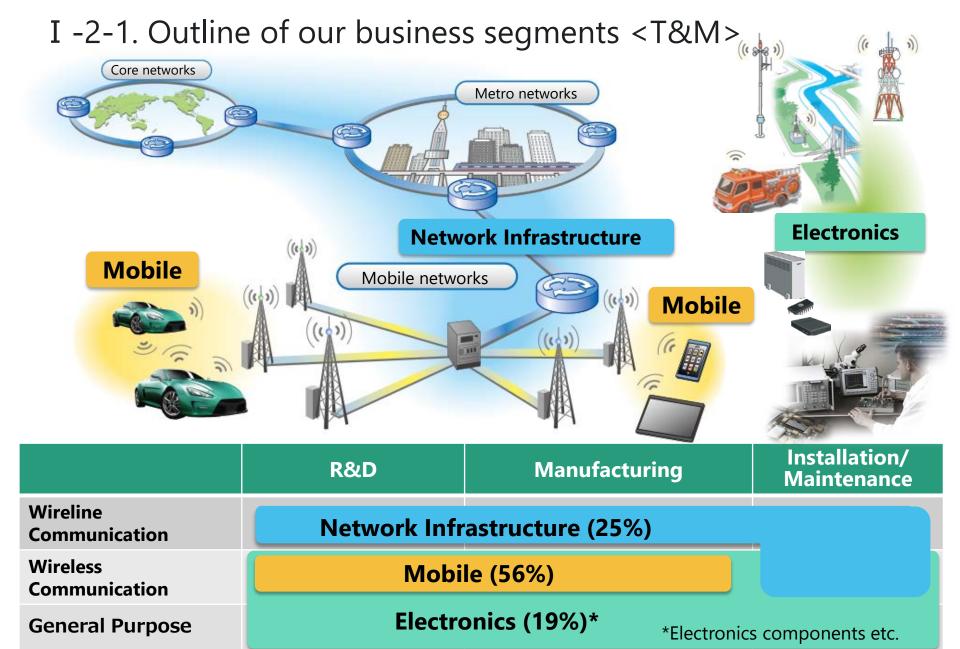
Driving innovation in new business areas

I -2. Outline of our business segments



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







I -3. Basic Policy of medium and long term business strategy

Capture growth drivers without fail, and realize "continuous profitable growth"

	Market average		Medium & long –term guideline	
	annual growth rate (estimated by Anritsu)	Vision/growth driver	Sales growth rate	Operating margin
T&M	3-5%	Become a leading company supporting 5G/IoT society (1) 5G, LTE-Advanced (2) IoT/Automotive, Connectivity (3) IP Data traffic/Cloud Services	≧7%	≧20%
PQA	3-5%	Become a world-class partner in quality assurance solution Expansion from contaminant inspection into the quality assurance market	≧7%	≧12%
Consolidated	<u> </u>	_	_	≧18%
ROE	_	_	≧15%	

I -3-1. GLP2020: Revenue and Op. profit Plan (1/2)

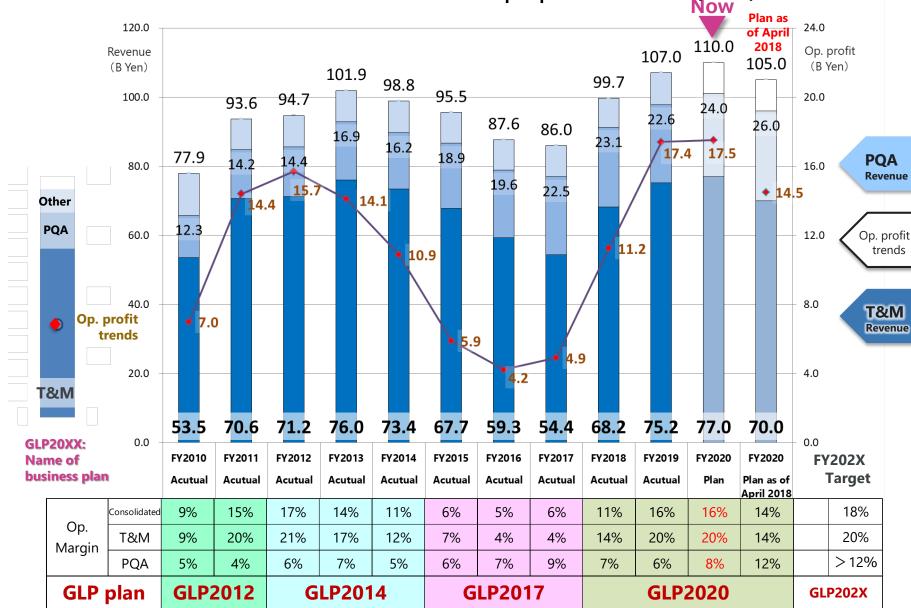
GLP2020

			,		
Indicators		FY2018(Act)	FY2019(Act)	FY2020 _(Plan)	FY2020*
Revenue		99.7 B Yen	107.0 B Yen	110.0 B Yen	105.0 B Yen
OP. profit		11.2 B Yen	17.4 B Yen	17.5 B Yen	14.5 B Yen
Op. margin		11 %	16 %	16 %	14 %
Profit		9.0 B Yen	13.4 B Yen	13.5 B Yen	11.0 B Yen
ROE		11 %	15 %	14 %	12 %
T&M	Revenue	68.2 B Yen	75.2 B Yen	77.0 B Yen	70.0 B Yen
	Op. profit	9.4 B Yen	15.1 B Yen	15.5 B Yen	10.0 B Yen
	Op. margin	14 %	20 %	20 %	14 %
PQA	Revenue	23.1 B Yen	22.6 B Yen	24.0 B Yen	26.0 B Yen
	Op. profit	1.6 B Yen	1.3 B Yen	1.8 B Yen	3.0 B Yen
	Op. margin	7 %	6 %	8 %	12 %
					*Plan as of April 2018

(Note) Exchange rate for GLP2020 : 1USD=105Yen, 1Euro=125Yen)



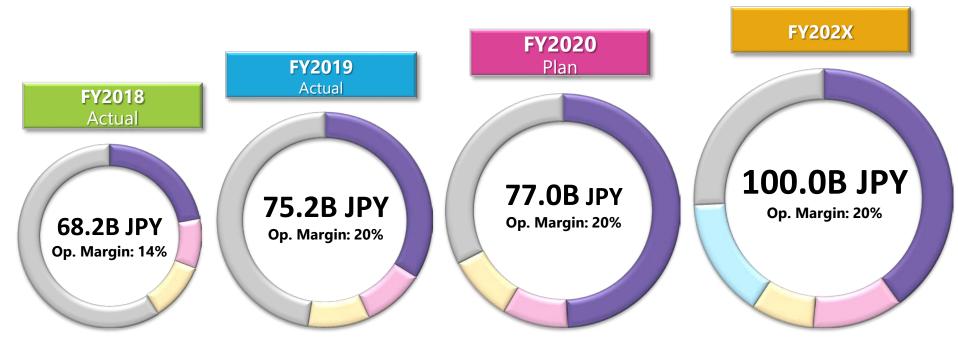
I -3-2. GLP2020: Revenue and Op. profit Plan (2/2)





I -3-3. GLP2020 Progress Status in T&M Business **Beyond**



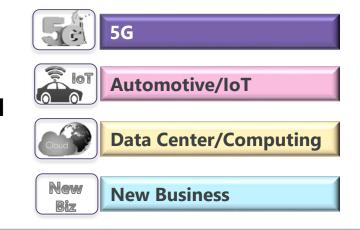


FY2020 Initiatives

Capture growth opportunities by focusing on boosting competitiveness in 5G business

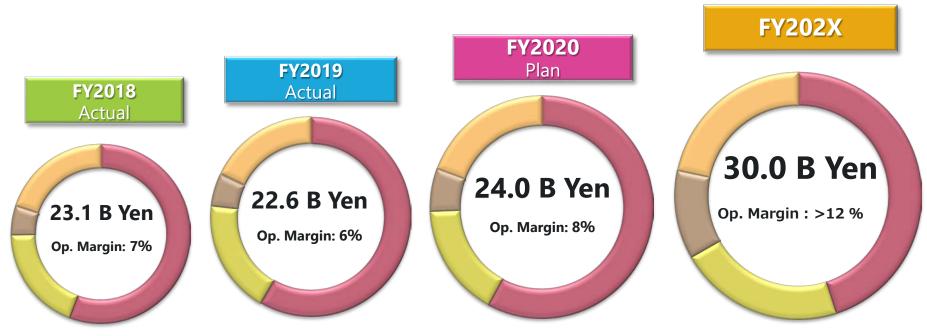
- Enhance global development framework and customer support system
- Promote conformance test system business

(Note) Anritsu group announced the FY2020 Forecast on April 27th, 2020.



I -3-4. GLP2020 Progress Status in PQA Business





FY2020 Initiatives

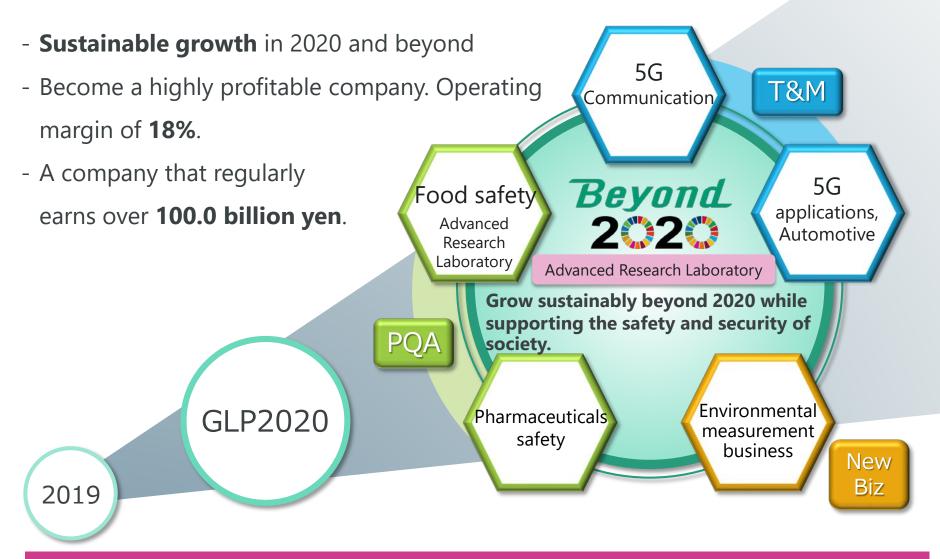
- Strengthen sales bases in Americas and Europe
- Promote shift to platform solutions

Japan
Americas
EMEA
Asia & Others

(Note) Anritsu group announced the FY2020 Forecast on April 27th, 2020.



I -4. Set out for Beyond2020

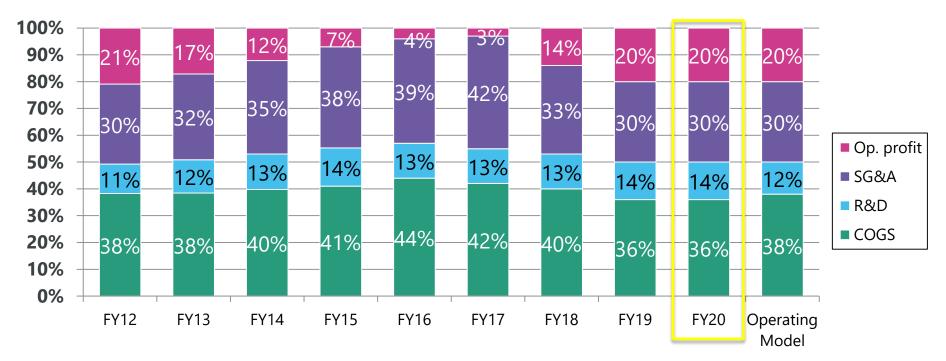


Resolve social issues by realizing Beyond 2020



II. T&M business segment

II -1. T&M: Profit structure improvement targets

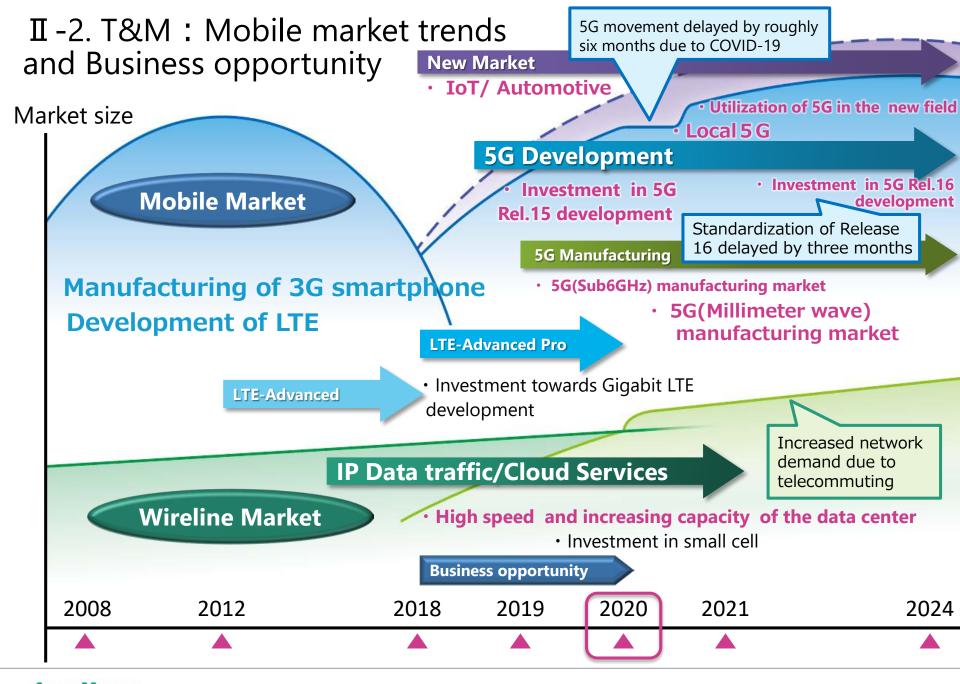


Cost structure improvement measures

- 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

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





CY2020 CY2021 CY2022 CY2023 Rel.16 Rel.17 Rel.18 Rel.16 Chip development Rel.17 Chip development Rel.15 Commercial device development Rel.16 Device development Rel.17 Device development s6 mw **s6** s6 s6 mw **Under investigation** (As of the end of May 2020. Launch a service Selected major countries)

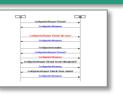


II -2-2. 5G terminal development/manufacturing process and test solutions

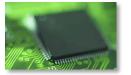
Sub6 / Millimeter wave

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



Commercial handset development

Conformance Test at UE Vendors & Test Houses

Conformance Test (CT)



Acceptance Test at Carriers & Test Houses

Carrier Acceptance Test (CAT)



Sub6

Millimeter wave

Mass production

Mass Production Test at UE Vendors & EMS



RF Calibration & Inspection







ME7873NR/ME7834NR

5G NR Conformance Test and Carrier Acceptance Test System



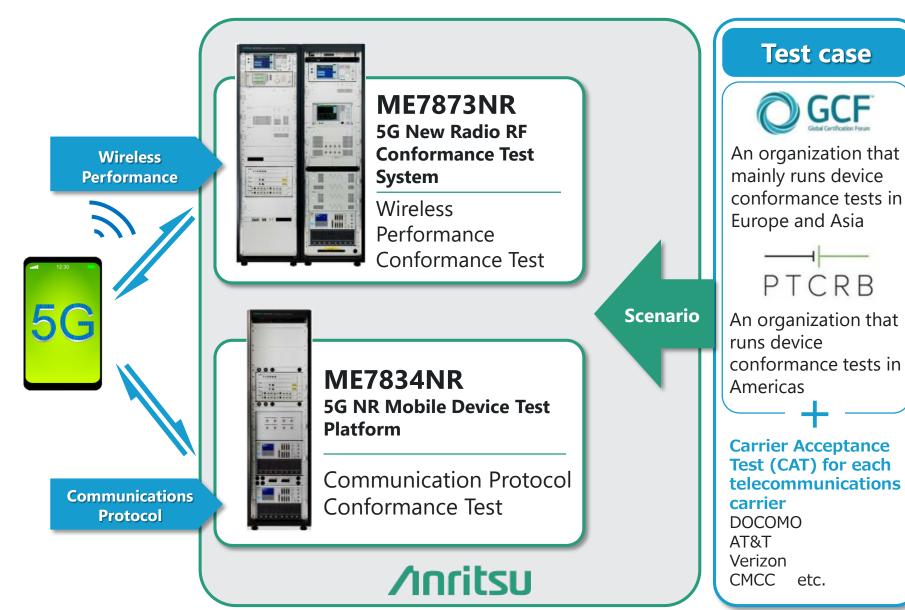
MT8870A
Universal Wireless
Test Set



Radio Communication

MT8000A

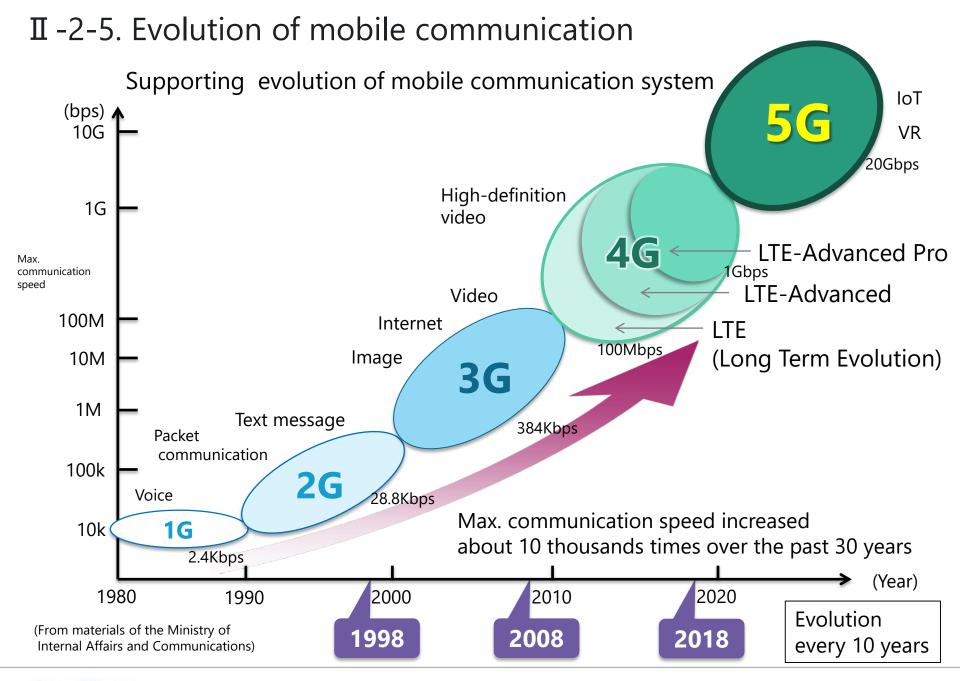
II -2-3. 5G Test Solutions Conformance Test



II -2-4. Mobile R&D business and solutions (The case of LTE)

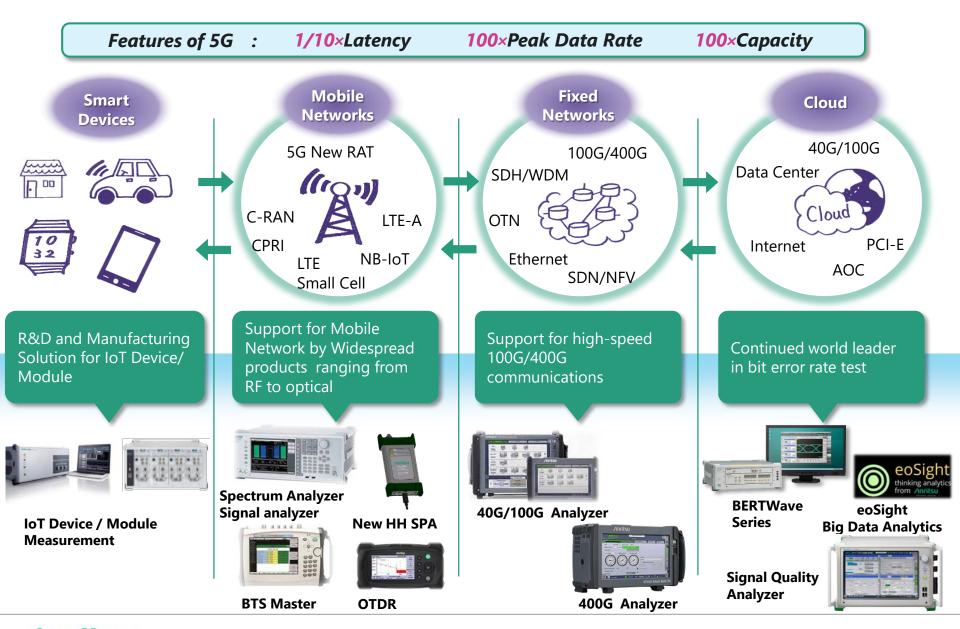
	Platform(Core)	Conformance test		Operator	Smartphone Commercial test
	Development		Protocol	Acceptance test	
Uses	Comm. standard development Chipset development	Conformance test Interoperability test		Comm. Carrier acceptance test	Application development UE operation test
Main customers	Chipset vendor UE vendor	Chipset vendor, UE vendor, Communication Carrier		Com Carrier, Test house, UE vendor	UE vendor Applications developer
Main theme	 FDD / TDD-LTE, LTE-Advanced, LTE-Advanced PRO CA (Carrier aggregation), VoLTE (Voice over LTE) MIMO (Multi Input Multi Output) Chipset unification of 3G/LTE and SRW (Short Range Wireless) 			Improve data throughputBattery consumption etc.	
Test solutions					
Main Competitors	Anritsu : No. Rohde & S	i	Keysight(e & Schwarz, (Agilent, Anite), Spirent	Rohde & Schwarz, Keysight



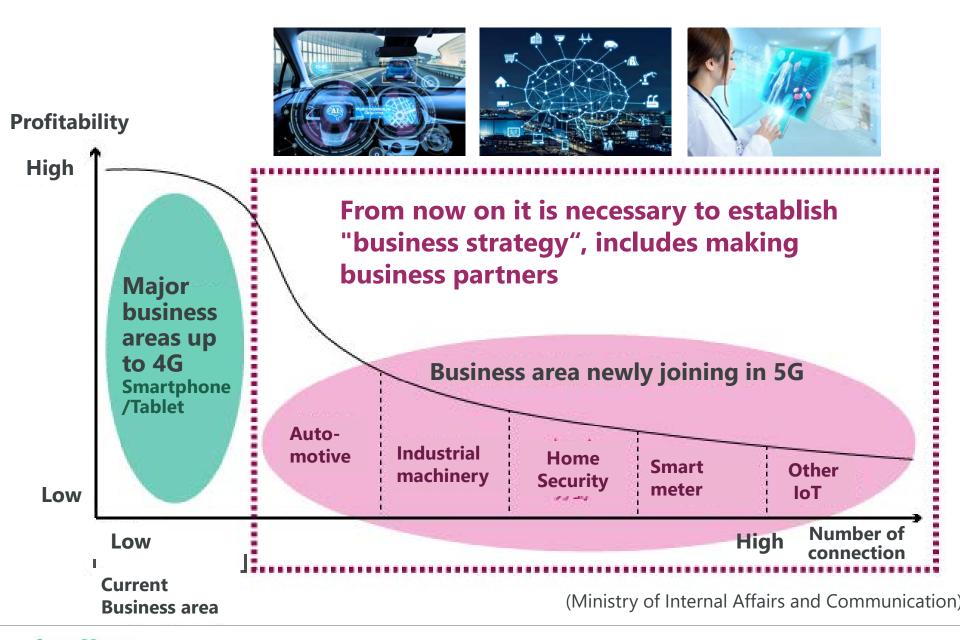




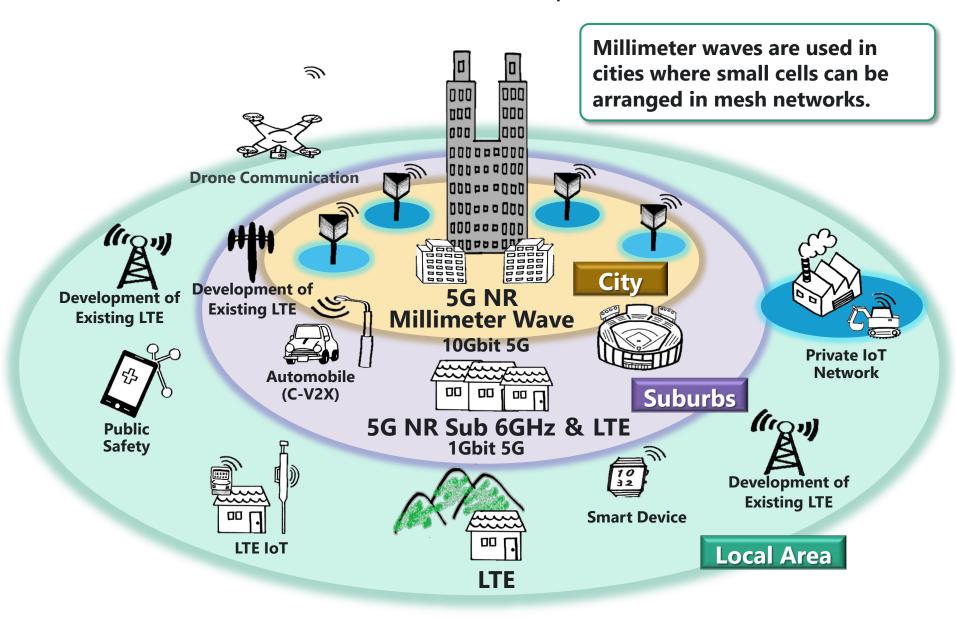
II -2-6. Contributing to the establishment of 5G network infrastructure



II -2-7. 5G will become the infrastructure of social innovation

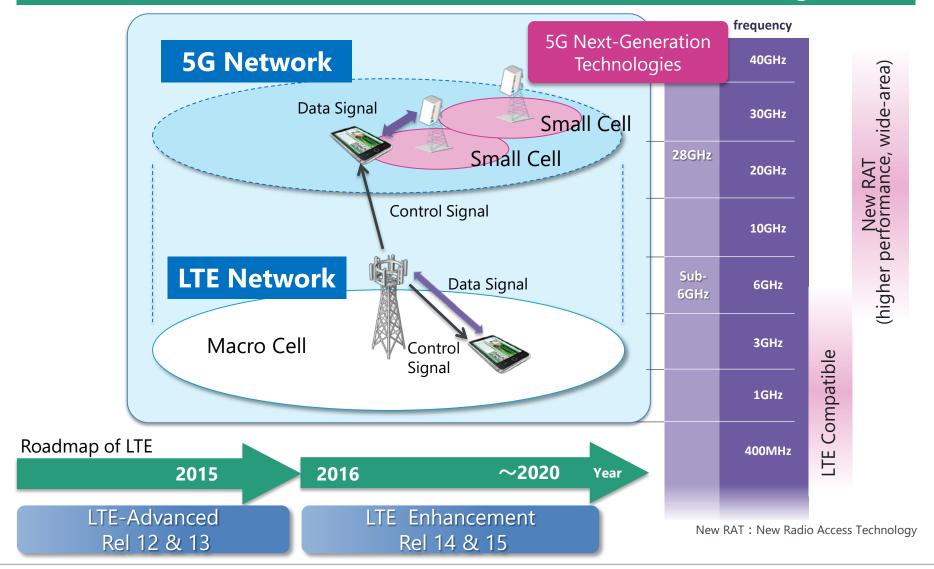


II -2-8. Outlook for 5G Service Development



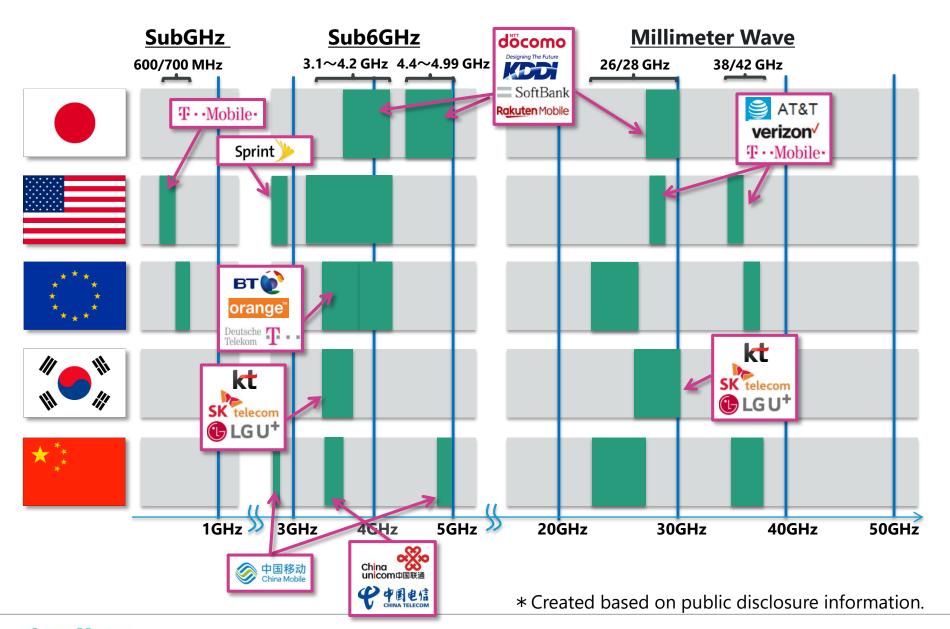
II -2-9. 5G and LTE coexist and interwork

5G = LTE Enhancements + Next-Generation Wireless Technologies





II -2-10. 5G Band Allocations in the World



II -2-11. Solutions for 5G chipset/device development

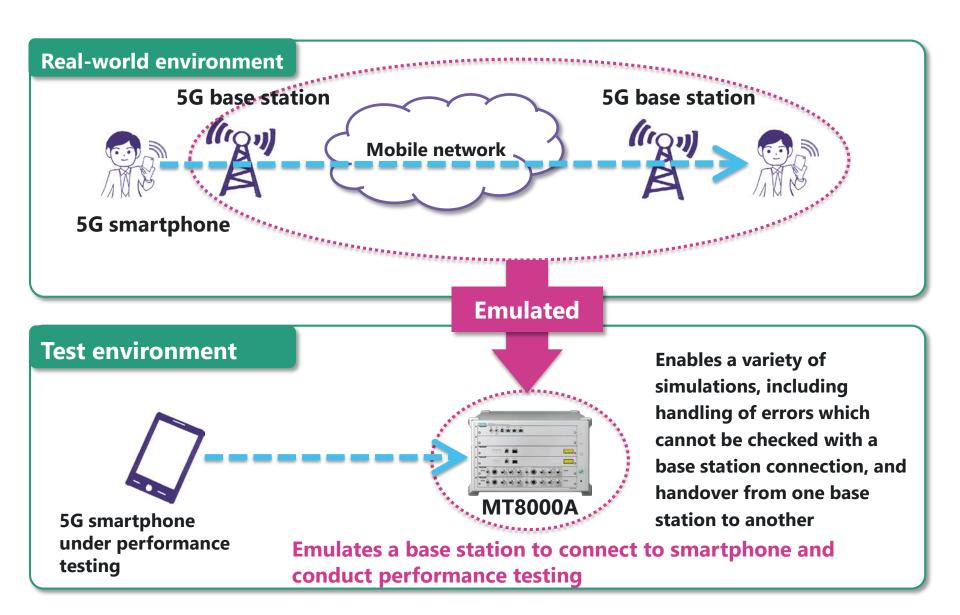
We have begun shipments of the Radio Communication Test Station MT8000A for development of chipsets, devices, etc. for the 5G market







II -2-12. Role of MT8000A





II -2-13. High-frequency (millimeter wave) measurement technology

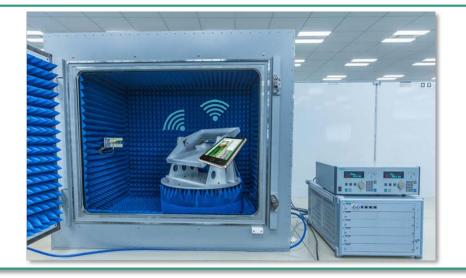
For low-frequency



Accurate measurements are possible with a cable connection.

For high-frequency (millimeter wave)

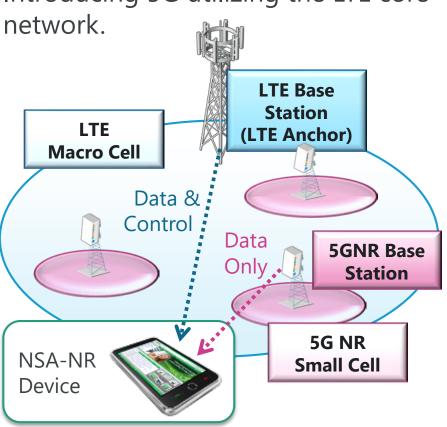
Accurate measurements are possible with Over The Air (OTA) using chamber.



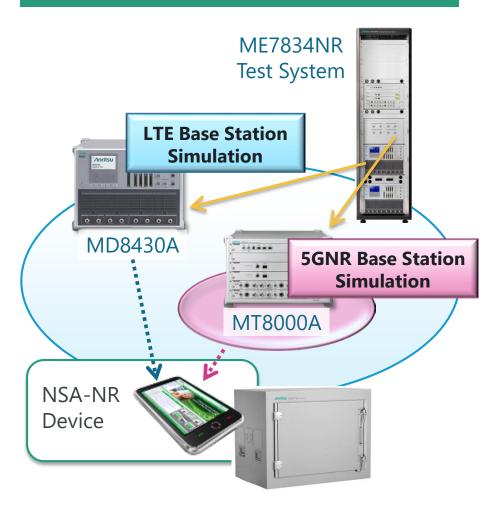
II -2-14. Test solution for 5G NSA-NR terminal development

NSA-NR Network Configuration

Introducing 5G utilizing the LTE core



NSA-NR Test Environment





II -2-15. Anritsu's Solution for 5G base stations and terminals



MS2850A Signal Analyzer Signal analyzer that realizes millimeter-wave measurement solutions required for R&D and manufacture of 5G base stations and terminals at unprecedented low prices

Frequency range: 9 kHz~32 GHz/44.5 GHz

Analysis bandwidth: 255 MHz (standard), 510 MHz(option),

1GHz (option)

Conventional Signal Analyzer for LTE



- Frequency is mainly 6GHz or less
- Analysis bandwidth is 20MHz to several hundred MHz

Signal Analyzer for 5G



- Covers frequency up to 44.5GHz
- Coverage of analysis bandwidth is up to 1GHz
- Low price enables installation for commercial development and manufacture

II -2-16. 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.

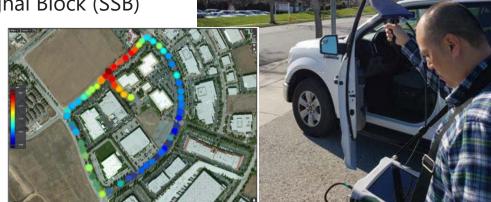
• TX spurious up to 54 GHz

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

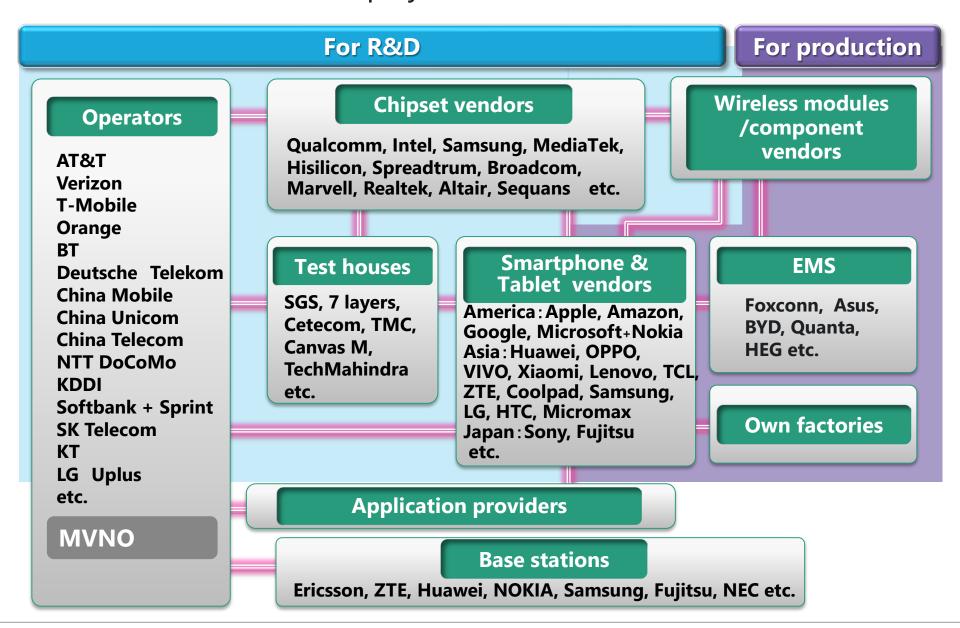
Usage: 5G Coverage Mapping

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



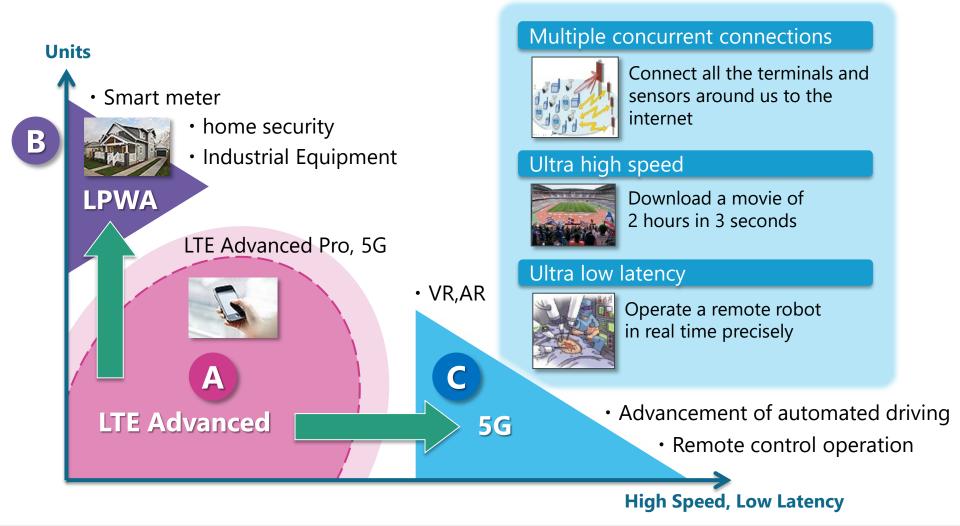


II -2-17. Food chain and players in mobile telecom market



II -3. Industrial Test Solutions

Expand Earnings Opportunities by Supporting the Creation of New Markets and Various Industrial Fields through the Utilization of 5G



II -3-1. Manufacturing solutions for Smart phone

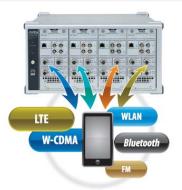


Current features

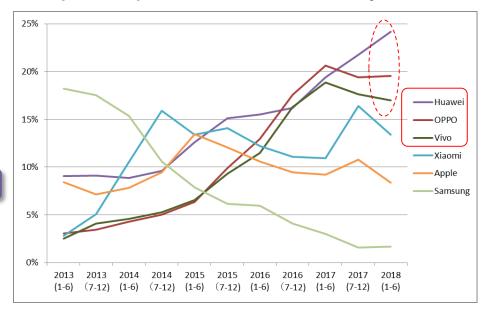
- 1. Huawei, Vivo, Oppo
 The rise of China vendors and intensifying competition ()
- 2. The growth of the manufacturing market in India

Solutions for 2G / 3G / LTE & Connectivity

MT8870A Universal Wireless Test Set



Smartphone Shipment Market Share in China by Vendor *



*Source: Gartner "Market Share: PCs, Ultramobiles and Mobile Phones, All Countries, 2Q18 Update" 24 Aug. 2018
Smartphone = Basic Phone, Premium Phone, Utility Phone
OS=Excluding WindowsRT and Proprietary
Graph created by Anritsu based on Gartner research

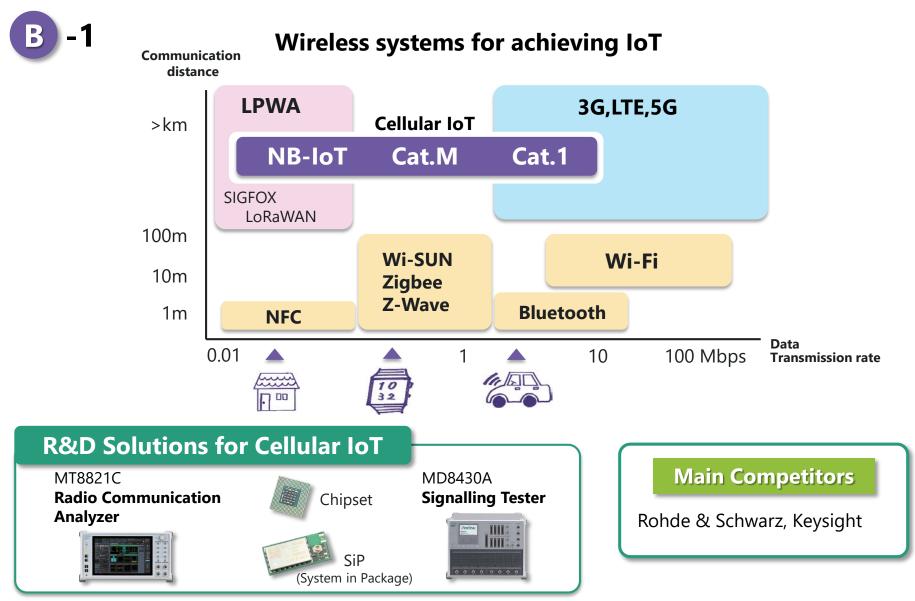
Main Competitors

Rohde & Schwarz, Keysight

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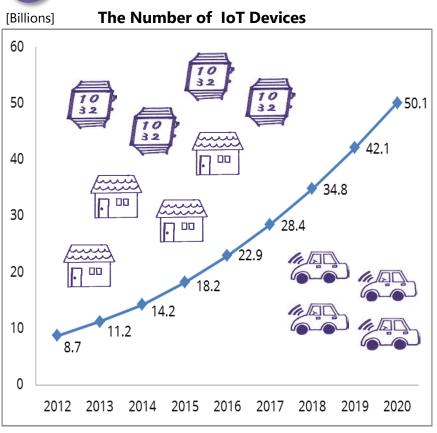
II -3-2. R&D solutions for Smart Devices for IoT





II -3-3. Manufacturing solutions for Smart Devices for IoT





*Source: World Economic Forum

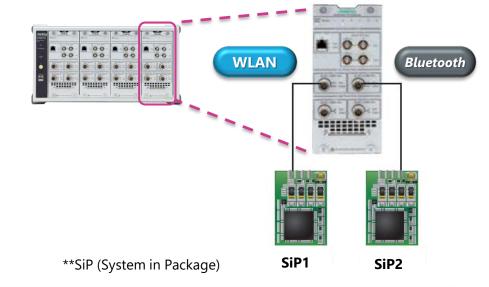
The growth of Connectivity & Module markets for IoT

For WLAN / Bluetooth

MT8862C Wireless Connectivity Test Set



MT8870A Universal Wireless Test Set



Main Competitors

Teradyne, National Instruments, Rohde & Schwarz, Keysight



II -3-4. Adoption of new technologies in the automotive market and Anritsu's initiatives

2015 2018 2016 2017 2019 2020 2021 Advancement of automated driving Level 3 Level 2 Level 1 Spread of 4G telematics Mandatory deployment of eCall Increasing use of 79GHz radar Active verification testing of V2X Telematics/eCall * emergency calling system for vehicles Mobile communication/connectivity Wireless communication Mobile network RF performance test simulator V2X communication Millimeter wave signal quality assessment transmitter tester V2X (802.11p) * vehicle-to-vehicle/road-to-vehicle communications 79GHz high resolution automotive radar



II -3-5. Food chain and players in Automotive market

Safety, Emergency, Comfort, Infotainment, Diagnostic

Car Vendors

Autonomous car

ADAS

(Advanced Driver Assistance System)

Telematics

(Telecommunication + Informatics)

ITS C-ITS

(Intelligent Transport Systems)

Dashboard Vendors

Transceiver module

(Cellular + V2X + Connectivity + Antenna + etc.)

Rader module

Antenna

Satellite receiver

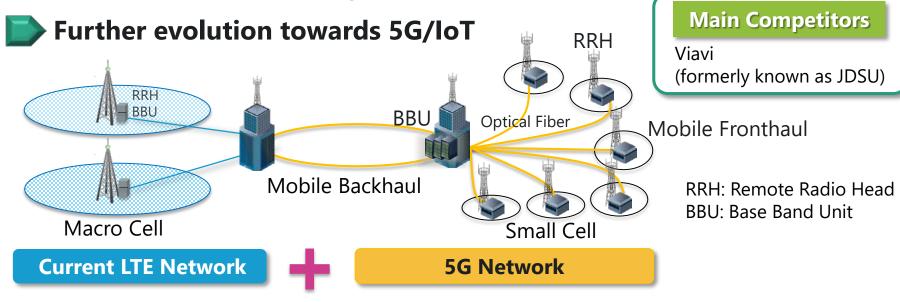
Tuner

Module Vendors

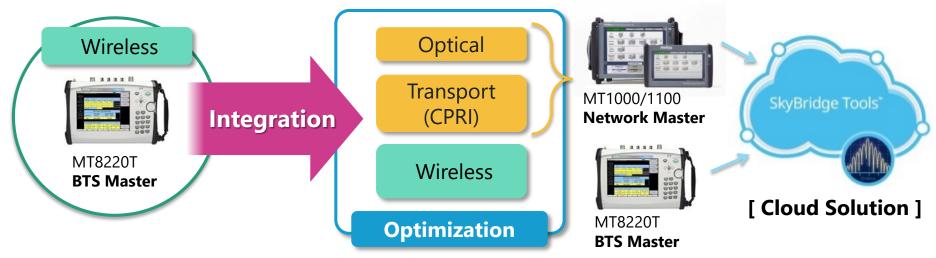
Cellular module, Connectivity module, V2X module, Rader, Antenna, Connector, Cable, etc **Chipset Vendors**

Semiconductors for communication

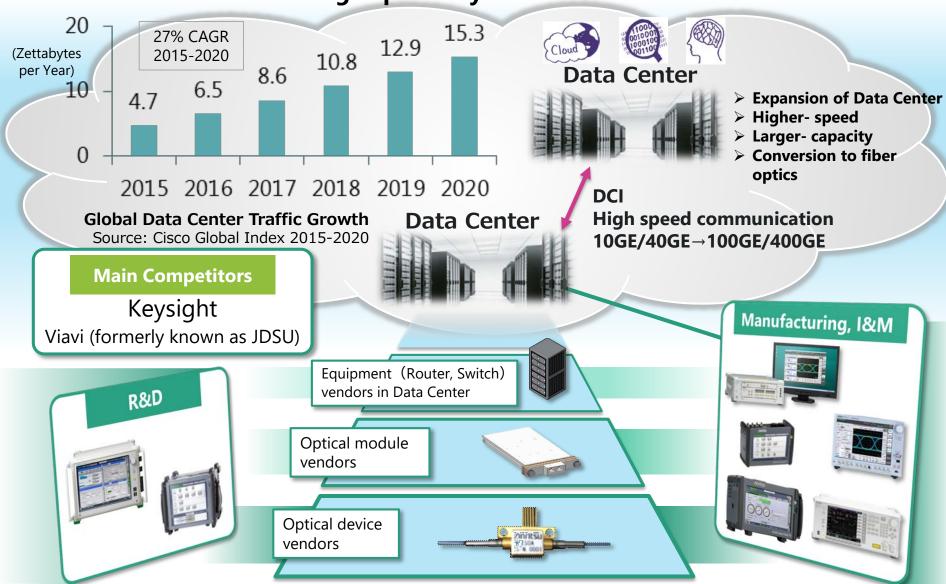
II -4. Network Reshaping Test Solutions



Reshaping the Future of Network Test Solution



II -4-1. Test Solutions for support of Cloud Service expanding **Data traffic extending explosively**

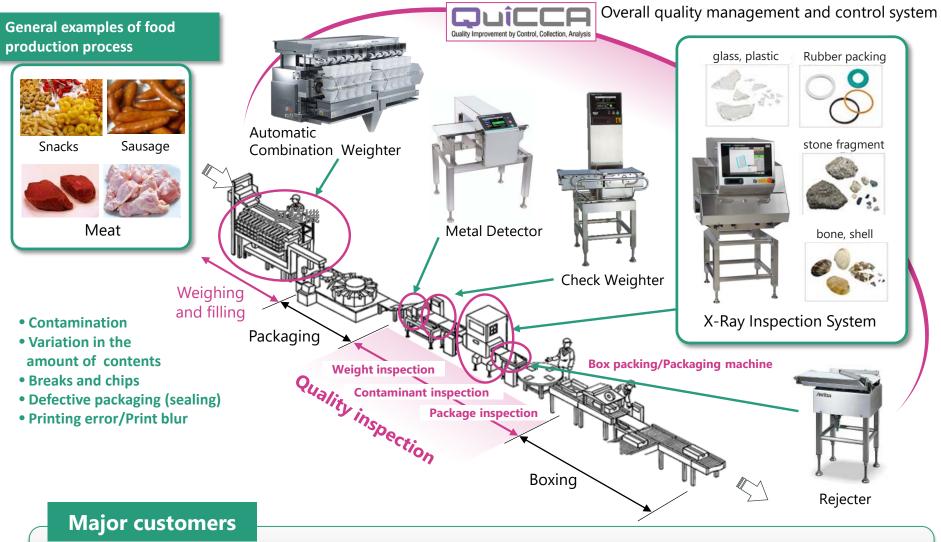




III. PQA Business segment



III-1. PQA business segments (Products Quality Assurance)

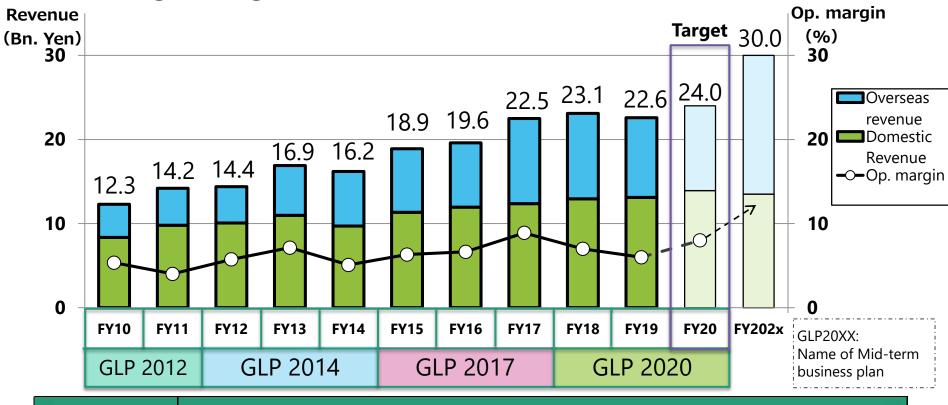


Mandalas Nastla Kasti II-ias Nisasas II-as Casas C

Mondelez, Nestle, Kraft Heinz, Nippon Ham Group, Glico Group, Nissui Group, etc.



III-2. The growing PQA business < PQA >



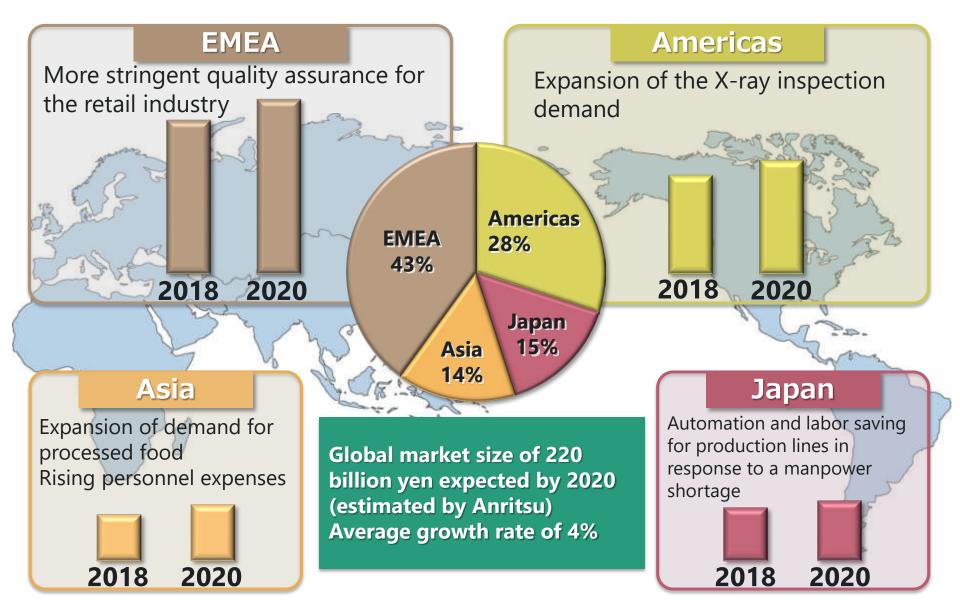
Market	Major initiatives				
North America, EMEA, Asia	Develop market with X-ray inspection systems as a key solution				
l Japan	Improve market share through quality assurance solutions with high added value in response to cutting-edge needs				

Main Competitors

Mettler-Toledo, Ishida, Marel

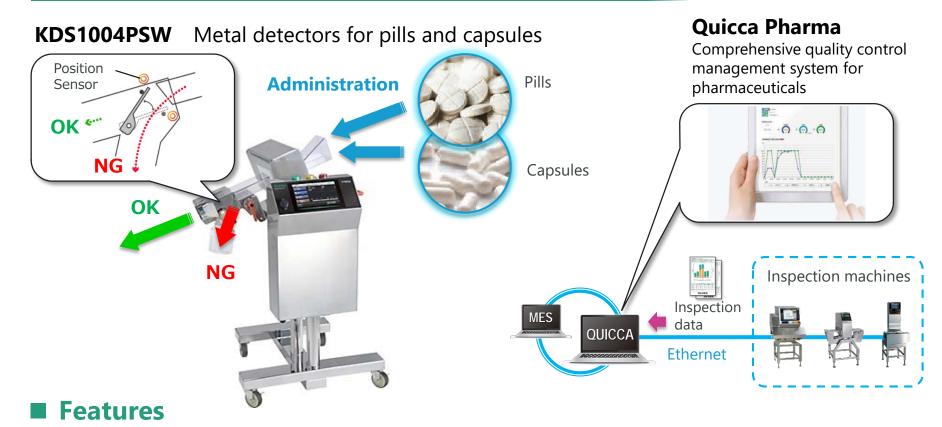


Ⅲ-3. PQA Business: Current Status of the PQA Market and Outlook



III-4. Solutions for pharmaceutical market

Metal detectors for pharmaceutical market



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

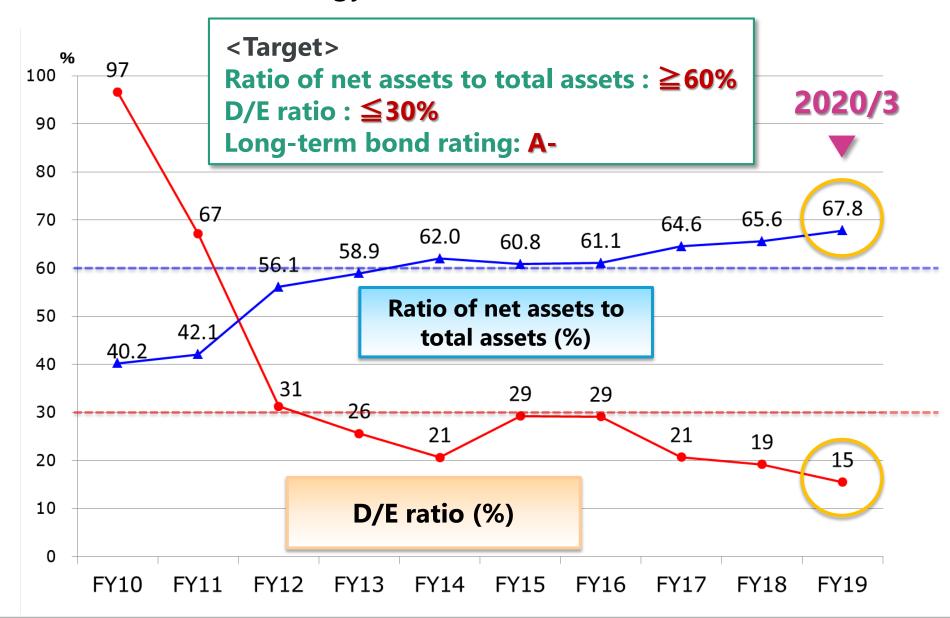
Can detect metal fragments down to 0.1 mm

Customers

Pharmaceutical companies



IV-1. Financial Strategy



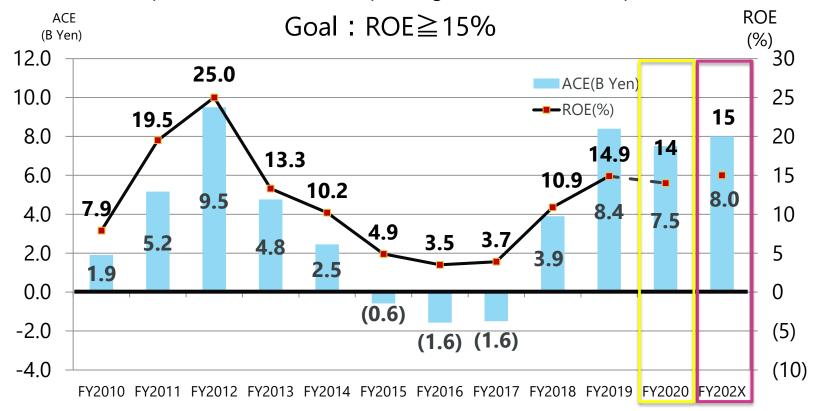


IV-1-1. GLP2020: Financial strategy

Basic policy

Improve corporate value KPI (ACE & ROE) through growth investment (including M&As) with a return of more than 7% of equity cost and capital efficiency improvements

* ACE (Anritsu Capital-cost Evaluation) :Operating income after tax-Capital Cost (WACC,5%)





IV-2. Shareholder Return Policy



Dividend Policy

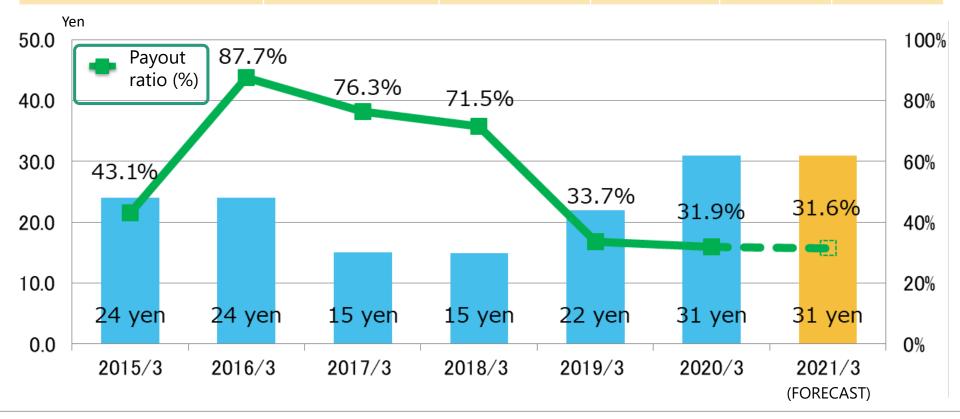
Distribute profits in accordance with its consolidated performance(Net profit) and by taking into account the total return

- 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
- 3. Flexibly provide shareholder returns taking into account the total return ratio

W-2-1. Dividend forecast

Annual dividend

	Dividend per share	Profit	Payout ratio	DOE	ROE
FY2020 (Forecast)	31 yen	13.5 B yen	31.6%	4.4%	14%
FY2019	31 yen	13.4 B yen	31.9%	4.7%	14.9%



IV-3. Corporate Philosophy and Sustainability Policy

Company Philosophy

Contribute to the development of a safe, secure, and prosperous global society by offering Original & High Level products and services with sincerity, harmony, and enthusiasm.

Company Vision

Achieve continuous growth with sustainable superior profits through innovation, using all knowledge of all parties and contribute to the sustainability of society.

Sustainability Policy

The Anritsu Group believes our business should increase our long-term value through contributions to the sustainability of global society with sincerity, harmony, and enthusiasm.

- 1.We will contribute to building a safe, secure, and comfortable society through our business activities, based on our long-term vision.
- 2.We will maintain harmony with the global socio-economy and society through ethical company activities.
- 3.We will contribute to the preservation of the global environment by promoting environmental management for the coexistence of people and nature.
- 4.We will build strong partnerships by promoting communication with all stakeholders.



IV-3-1. Sustainability Goals(SDGs)

Social Issues We Address through Our Business Activities

Anritsu Group

Contribute to the promotion of innovations and an industrial structure that builds a sustainable society, and creation of safe and secure infrastructure



T&M

Contribute to building a sustainable society through the maintenance of a robust network linking all things related to safety and security



PQA business

Contribute to realizing a sustainable society and in which everyone can live with a sense of safety and security and in which food loss is minimized by enhancing Products Quality Assurance for food and pharmaceuticals



Challenges to meet the needs of society (ESG)

Promoting Global Environmental Protection

Contributing to the creation of a society with sustainable consumption and sustainable corporate production practices.







Maintaining Harmony with the Global Socio-Economy

Together with diverse Human resources, we seek to contribute to the creation of workplaces where each individual can achieve personal growth and experience job satisfaction.







Expanding and Strengthening Governance

Ensuring ethical corporate activities through risk management and fair, quick, and effective decision making



The Creation of Shared Value through the Promotion of Communication

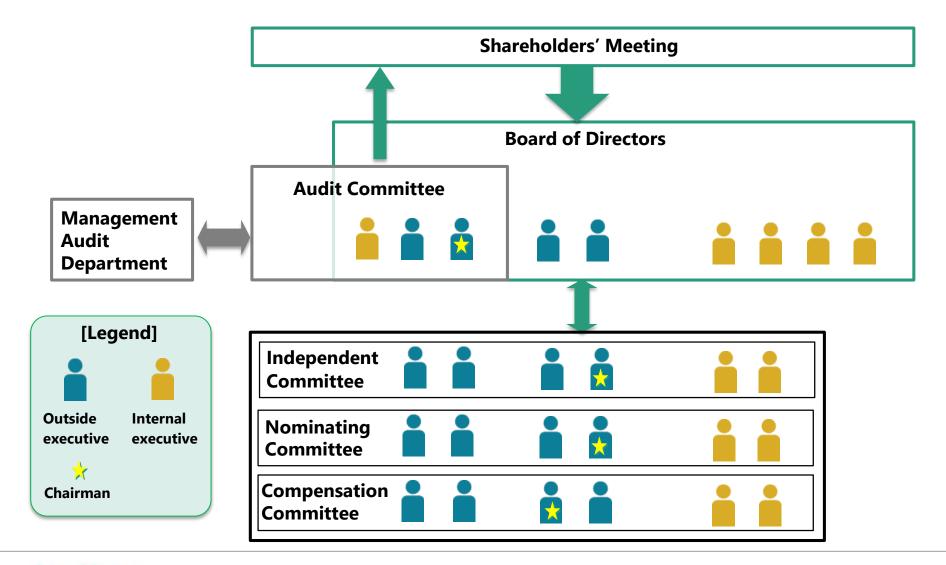
Contributing to the creation of shared value with collaboration among all stakeholders





IV-4. Corporate Governance System

For improving competitiveness and continuously enhancing corporate value

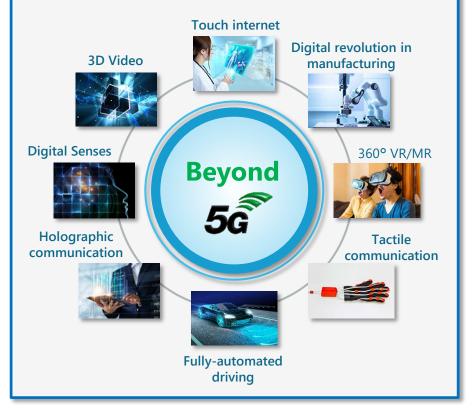




IV-5. Introduction to the Advanced Technology Development Lab

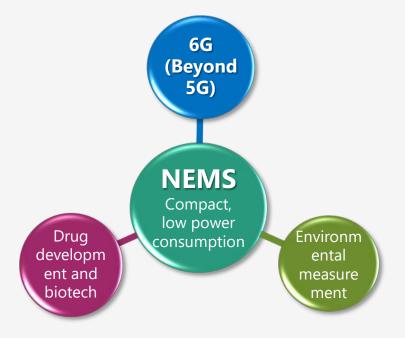
6G(Beyond 5G)

- 100+ GHz component development
- Radio interference monitoring technology



Next-generation technology acquisition

 Realization of "NEMS*", which have high potential for use in ultrasensitive sensors



* NEMS (Nano Electro Mechanical Systems), are devices with nmorder mechanical structures, which are even more compact than semiconductor processing technology, MEMS (Micro Electro Mechanical Systems).

V. Financial Results for the 1st quarter of the Fiscal Year ending March 31, 2021

Note: The announced on July 30th, 2020

V-1. Consolidated performance - Financial results -



Year-on-year growth in revenue and profit

Unit: Billion Yen

International Financial Reporting Standards (IFRS)	FY2019 (Apr. to Jun.)	FY2020 (Apr. to Jun.)	YoY	YoY (%)
Order Intake	27.2	29.0	1.8	7%
Revenue	23.2	25.7	2.5	11%
Operating profit (loss)	2.7	5.1	2.4	90%
Profit (loss) before tax	2.5	5.1	2.6	102%
Profit (loss)	1.8	3.5	1.7	97%
Comprehensive income	0.8	3.7	2.9	348%

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



V-2. Consolidated performance - Results by business segment -

T&M: Robust demand amid move to 5G commercialization

Unit: Billion Yen

International Financial Reporting Standards (IFRS)		FY2019 (Apr. to Jun.)	FY2020 (Apr. to Jun.)	YoY	YoY (%)
T&M	Revenue	17.3	19.3	2.0	11%
	Op. profit (loss)	2.8	4.9	2.1	79%
DO A	Revenue	4.1	4.4	0.3	8%
PQA	Op. profit (loss)	(0.2)	0.1	0.3	-
Others	Revenue	1.8	2.0	0.2	10%
Others	Op. profit (loss)	0.3	0.2	(0.1)	-32%
Adjustment	Op. profit (loss)	(0.2)	(0.2)	0.0	-
Total	Revenue	23.2	25.7	2.5	11%
	Op. profit (loss)	2.7	5.1	2.4	90%

Note1: Numbers are rounded off to the first decimal place in each column.

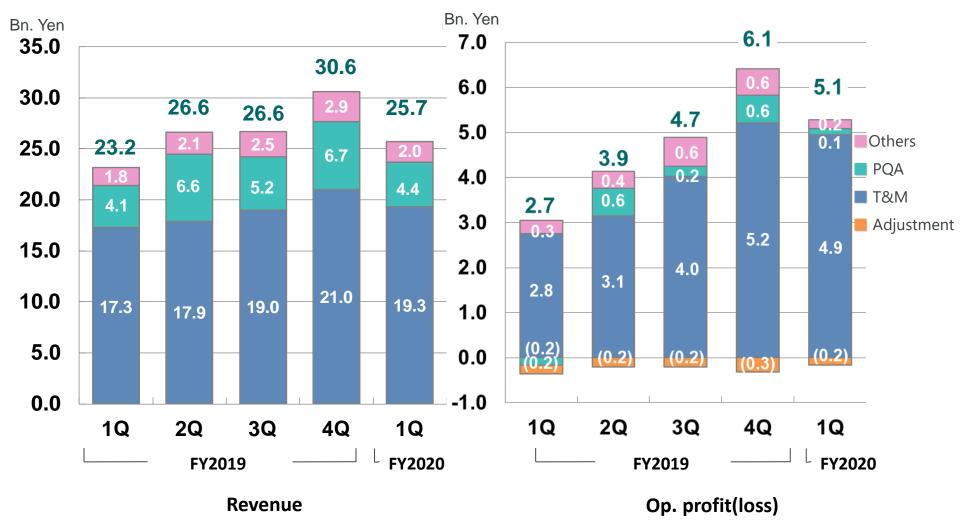
Note2: Adjustment includes elimination of inter-segment transactions and non distributed company-wide expenses of each business segment.

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



V-3. Consolidated performance - Revenue and Op. profit by quarters -

> 1Q(Apr.-Jun.) Operating margin: Consolidated20%, T&M26 %, PQA3%



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



V-4. Overview of operations by business segment

Segment FY2020 (April to June)

T&M: Steady progress of 5G commercialization schedule

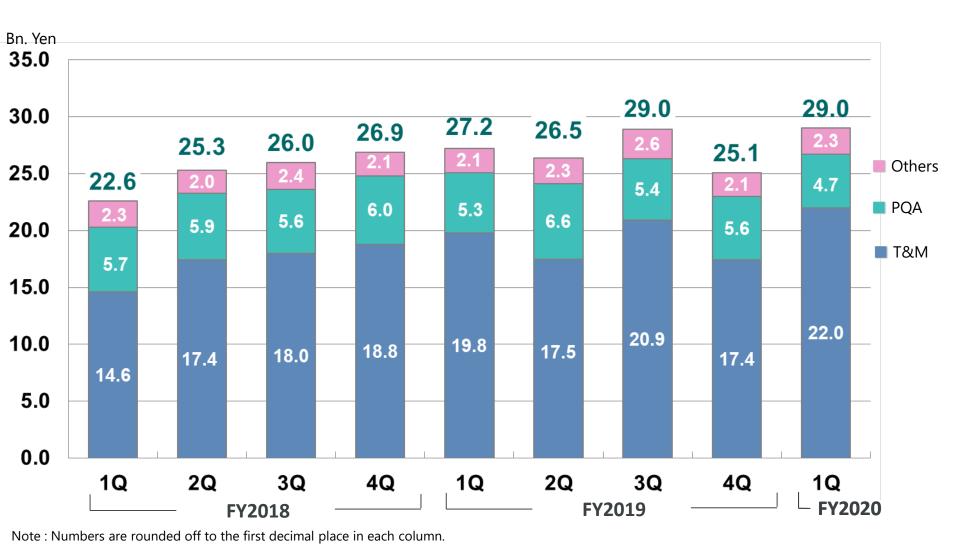
Mobile	5G development demand remains steady
Network Infrastructure	Increased investment in data centers, etc.
Asia & Others/Japan	Expansion in investment aimed at 5G commercialization
Americas	Greater focus on 5G service area expansion

PQA: Capital investment in food market to introduce automation and to enable higher efficiency is robust. However, we need to watch carefully the impact of COVID-19.

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

V-5. Transition of Order intake

T&M: 12% growth year on year

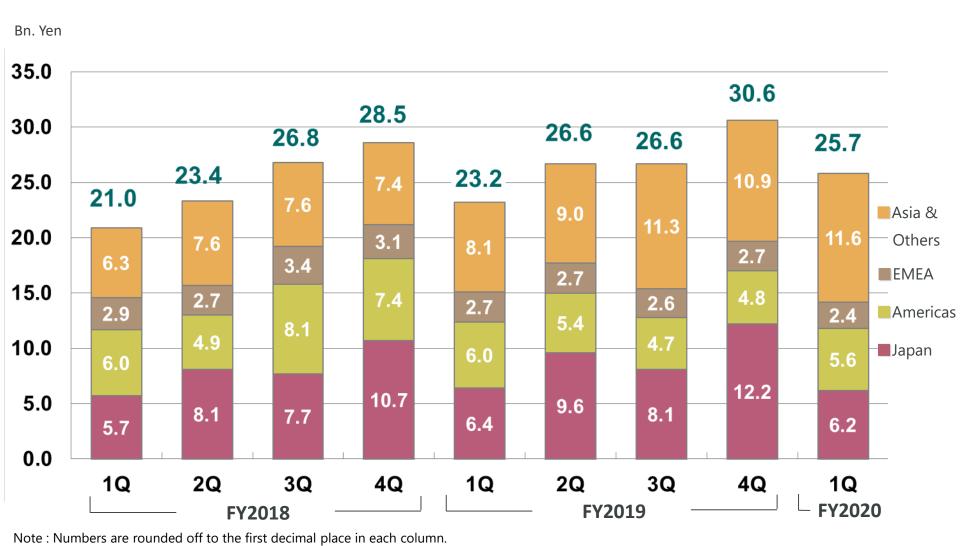




V-6. Transition of Revenue by region



Revenue rose year on year in Asia, backed by strong 5G demand





V-7. Cash Flow



Operating cash flow margin ratio was 19.1% ¥

FY2020 1Q

Operating CF: 4.9 Bn. Yen Investing CF: (1.1) Bn. Yen Financing CF: (11.0) Bn. Yen

Free Cash Flow

Op. CF + Inv. CF: 3.8 Bn. Yen

Cash at the end of period

40.5 Bn. Yen

Interest-bearing debt

6.6 Bn. Yen

Details Unit: Billion Yen Others 1.2* Accounts receivable 2.8 **Depreciation** and amortization Profit(loss) before tax 5.1 **_** Capex (0.7) Inventory (2.2) **Others** (0.4) **Redemption of** Tax (2.7) corporate bonds (8.0)**Accounts** payable (0.6) Dividend (2.7) **TOthers (0.2)** * Other main items: Advances received, etc. Op. CF 4.9 Inv. CF (1.1) Fin. CF (11.0)

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

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



No Change since April 27th disclosures

Unit: Billion Yen

		FY2019	FY2020		
		Actual	Forecast	YoY	YoY(%)
Revenue		107.0	110.0	3.0	3%
Operating profit (loss)		17.4	17.5	0.1	0%
Profit (loss) before tax		17.2	17.5	0.3	2%
Profit (loss)		13.4	13.5	0.1	1%
TOINA	Revenue	75.2	77.0	1.8	2%
T&M	Op. profit (loss)	15.1	15.5	0.4	2%
PQA	Revenue	22.6	24.0	1.4	6%
	Op. profit (loss)	1.3	1.8	0.5	40%
Others	Revenue	9.3	9.0	(0.3)	-3%
	Op. profit (loss)	1.9	1.2	(0.7)	-37%
Adjustment	Op. profit (loss)	(0.9)	(1.0)	(0.1)	-

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

Reference : Exchange rate : FY2019 (Actual)

FY2019 (Actual) 1USD=109yen, 1EURO=121 yen FY2020 (Forecast) 1USD=105 yen, 1EURO=120yen



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