

# Continuous Growth with Sustainable Superior Profits

Anritsu Corporation  
November, 2020



MEMBERSHIP

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



**Anritsu**  
envision : ensure



# Cautionary Statement

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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.

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# 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

## **III . 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 2nd 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

\* GLP2020 Plan = FY2018~FY2020



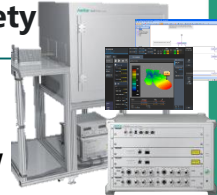


# I -2. Outline of our business segments

## T&M

Evolution and advances of networked society

- ▶ Mobile : 5G, LTE
- ▶ Network Infrastructure : Wired, Wireless NW
- ▶ Electronics : Electronics parts, Wireless Equipment



## PQA

Food Safety and security

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



## Others

- ▶ IP network equipment
- ▶ Opt. devices



(Revenue by business segment)

107.0 Billion Yen consolidated revenue in FY2019

T&M 70%			PQA	Others
Mobile 56%	Network Infrastructure 25%	Electronics 19%	21%	9%

(Sales of T&M business by region in FY2019)

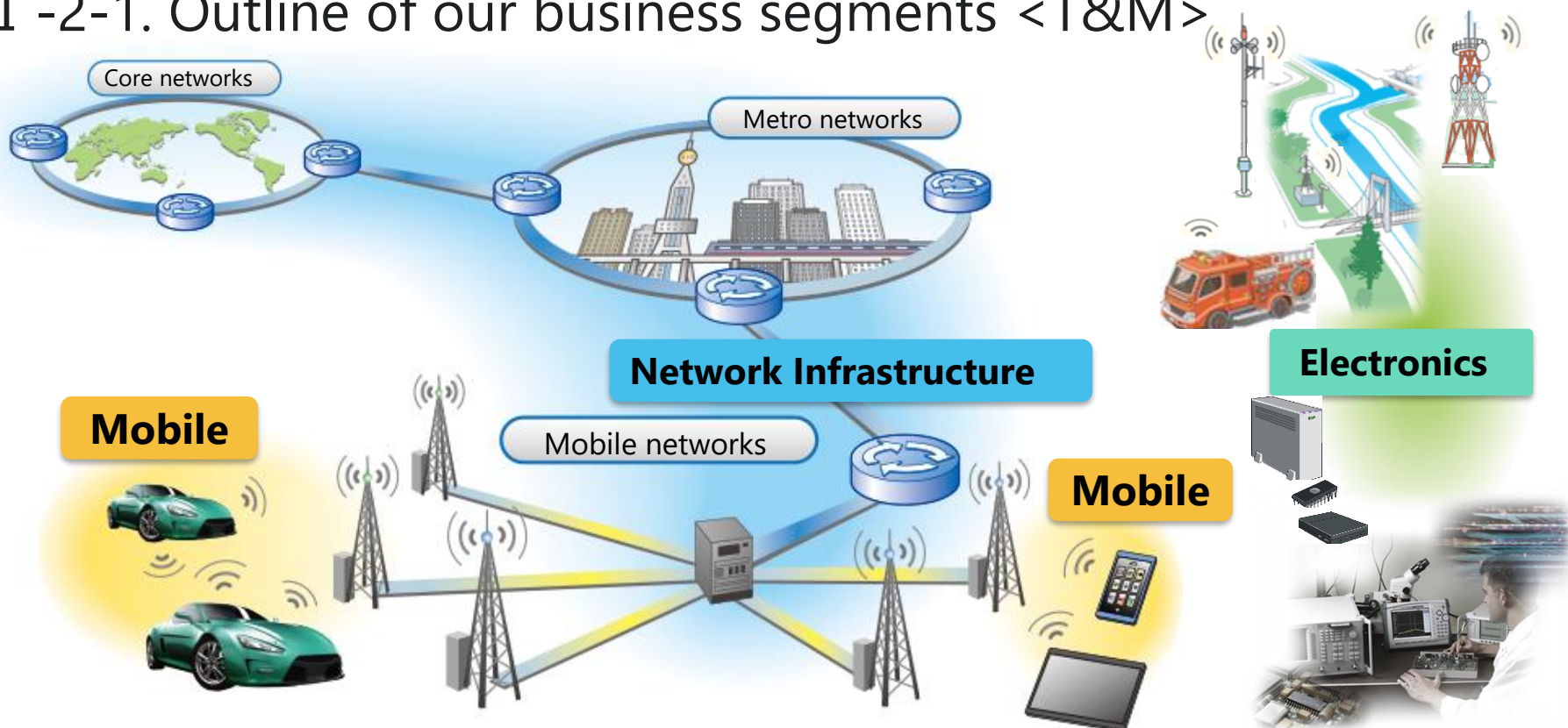
Japan 22%	Asia & Others 44%	Americas 22%	EMEA 12%
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T&M: Test & Measurement

PQA : Products Quality Assurance



# I -2-1. Outline of our business segments <T&M>



	R&D	Manufacturing	Installation/ Maintenance
Wireline Communication	<div>Network Infrastructure (25%)</div> <div>Mobile (56%)</div> <div>Electronics (19%)*</div>		
Wireless Communication			
General Purpose			
	*Electronics components etc.		



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

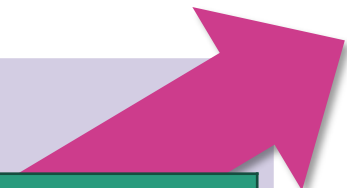
**Capture growth drivers without fail, and realize “continuous profitable growth”**

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



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

## GLP2020



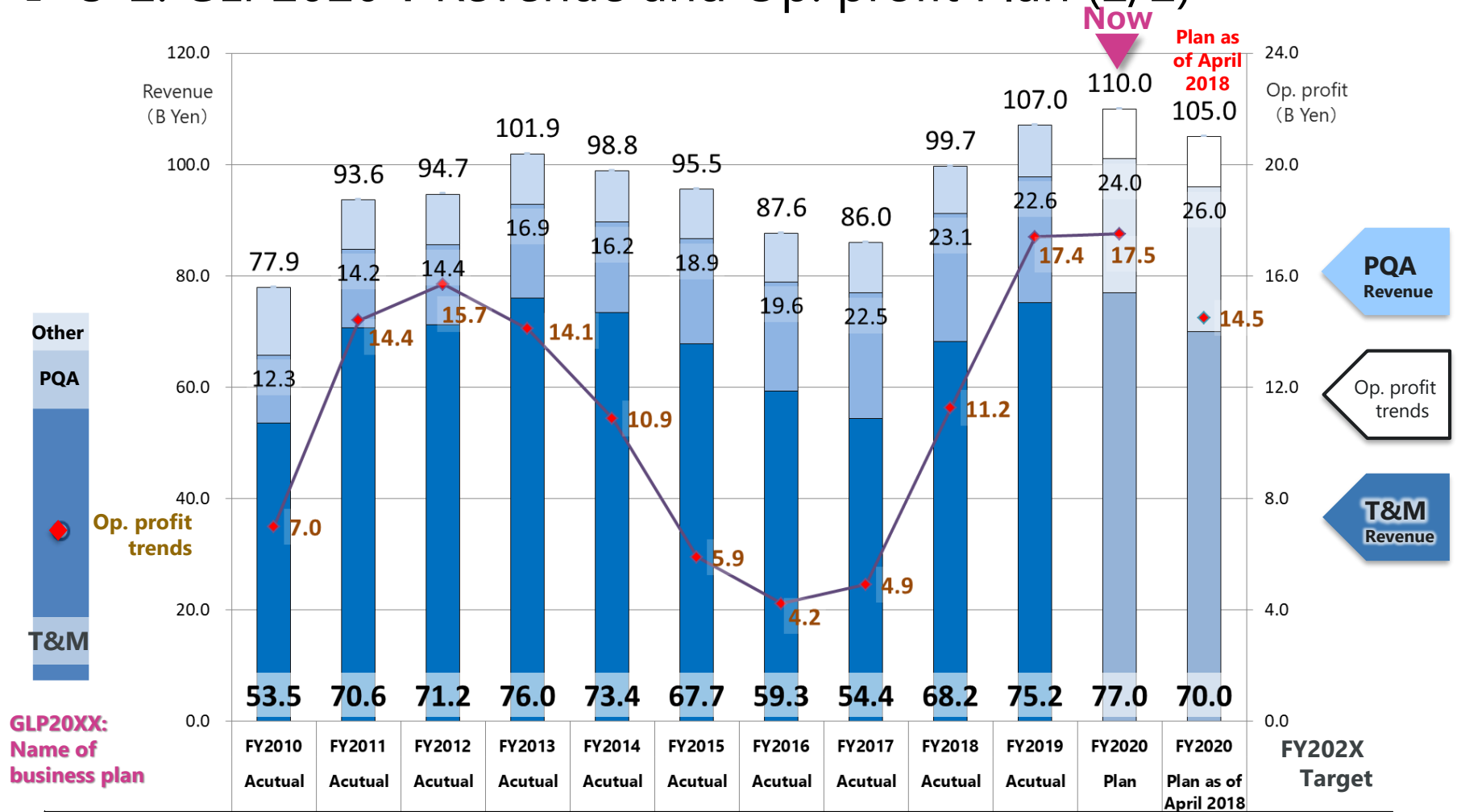
Indicators		FY2018 <sub>(Act)</sub>	FY2019 <sub>(Act)</sub>	FY2020 <sub>(Plan)</sub>	FY2020*
Revenue		99.7 B Yen	107.0 B Yen	110.0 B Yen	105.0 B Yen
OP. profit		11.2 B Yen	17.4 B Yen	17.5 B Yen	14.5 B Yen
Op. margin		11 %	16 %	16 %	14 %
Profit		9.0 B Yen	13.4 B Yen	13.5 B Yen	11.0 B Yen
ROE		11 %	15 %	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)



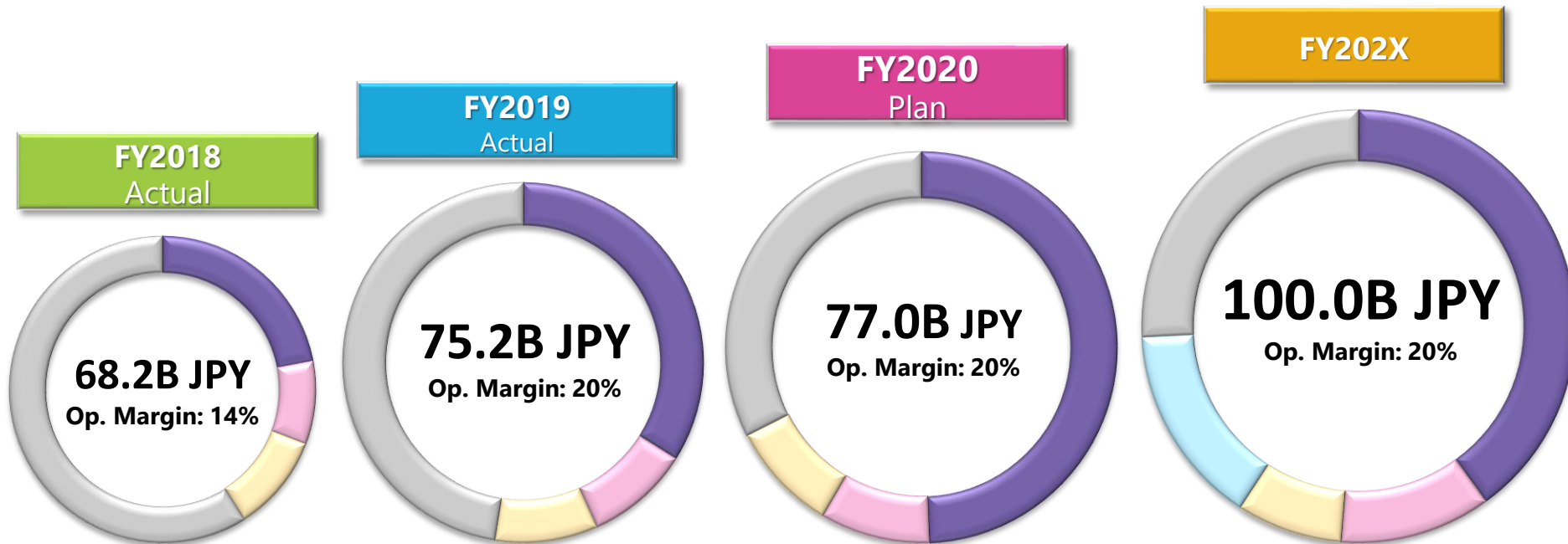
# I -3-2. GLP2020 : Revenue and Op. profit Plan (2/2)



Op. Margin	Consolidated	9%	15%	17%	14%	11%	6%	5%	6%	11%	16%	16%	14%		18%
	T&M	9%	20%	21%	17%	12%	7%	4%	4%	14%	20%	20%	14%		20%
	PQA	5%	4%	6%	7%	5%	6%	7%	9%	7%	6%	8%	12%		> 12%
<b>GLP plan</b>		<b>GLP2012</b>		<b>GLP2014</b>			<b>GLP2017</b>			<b>GLP2020</b>				<b>GLP202X</b>	



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

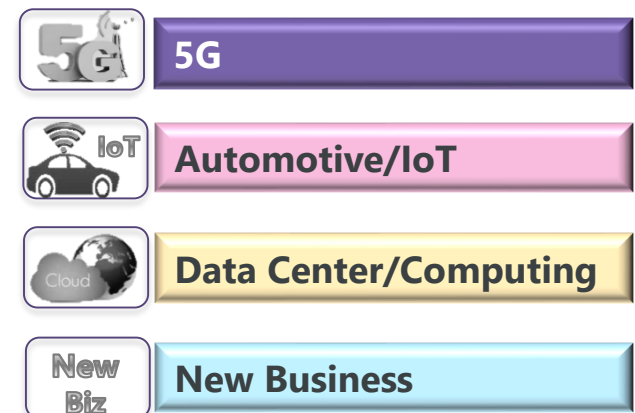


## FY2020 Initiatives

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

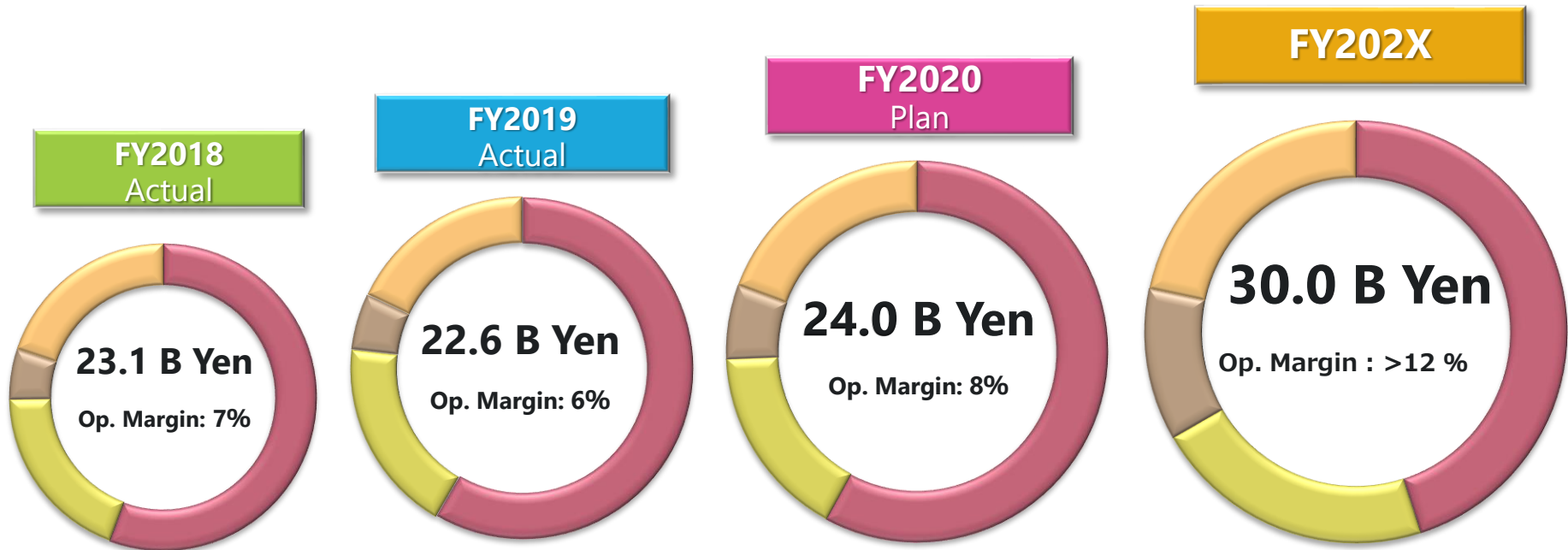
- Enhance global development framework and customer support system
- Promote conformance test system business

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



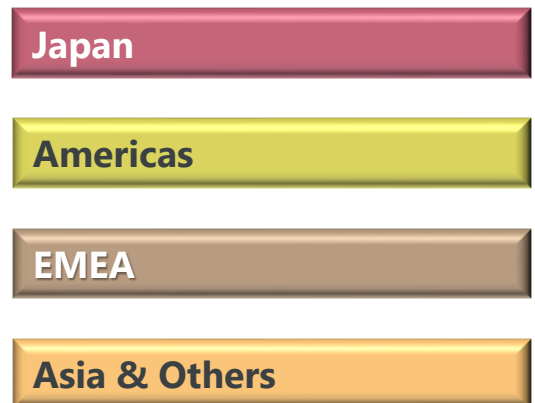


# I -3-4. GLP2020 Progress Status in PQA Business



## FY2020 Initiatives

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

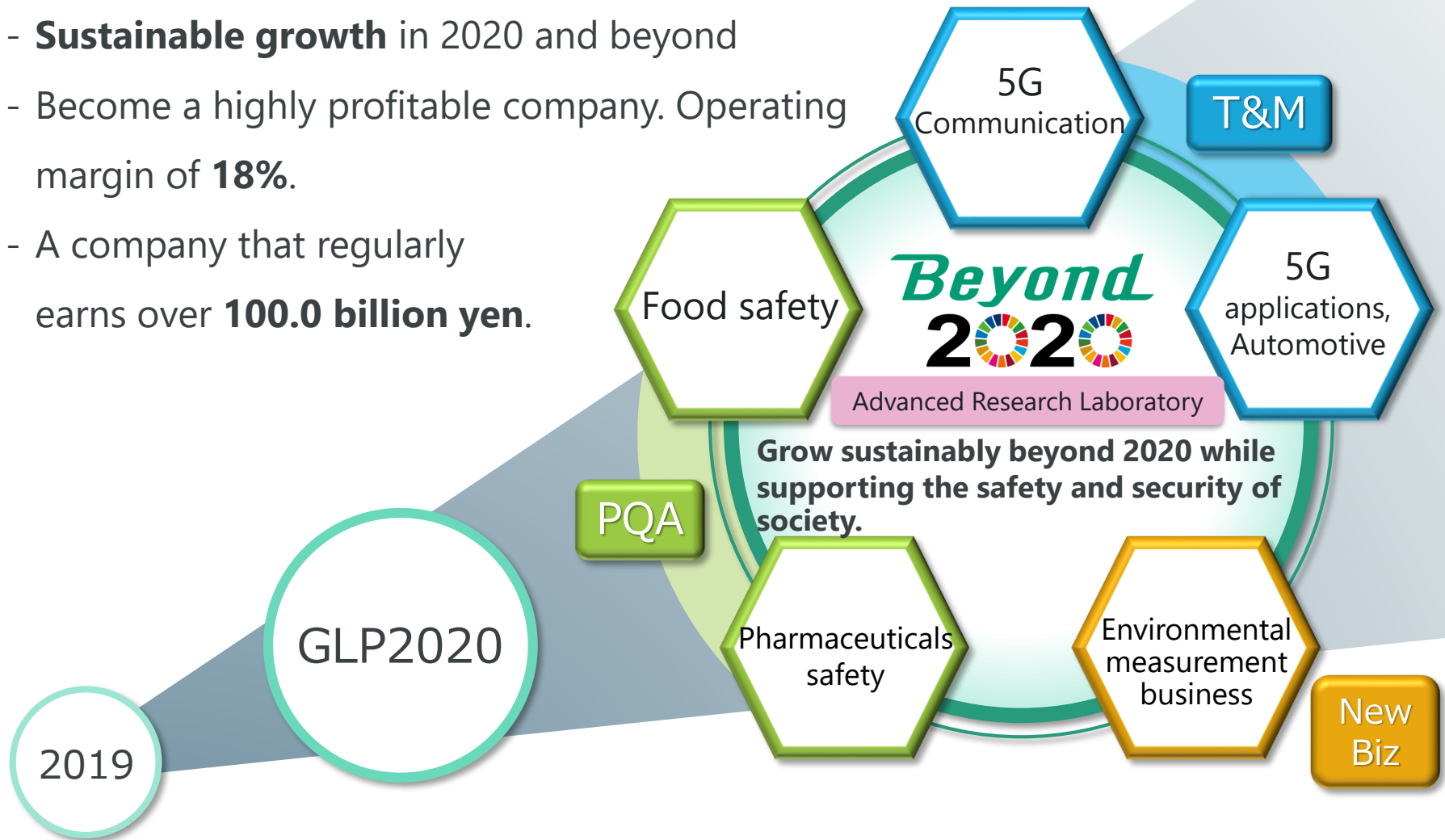


(Note) Anritsu group announced the FY2020 Forecast on April 27th, 2020.



## I -4. Set out for Beyond2020

- **Sustainable growth** in 2020 and beyond
- Become a highly profitable company. Operating margin of **18%**.
- A company that regularly earns over **100.0 billion yen**.



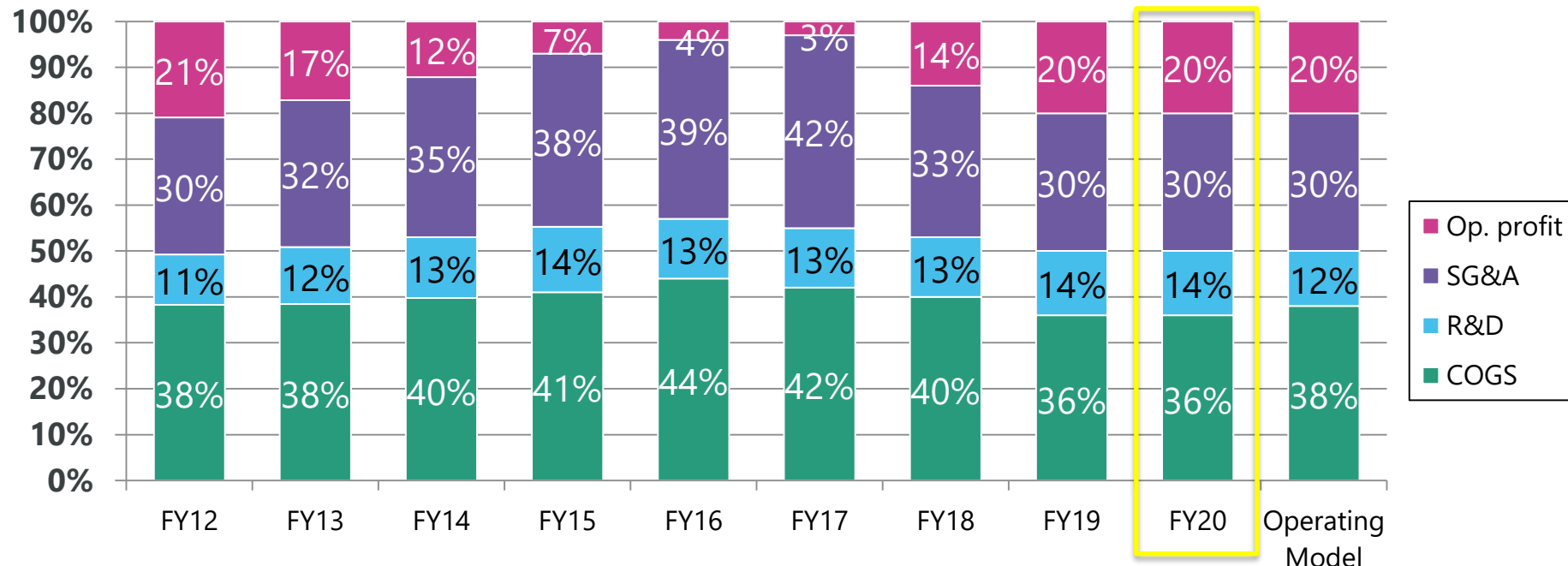
**Resolve social issues by realizing Beyond 2020**



## **Ⅱ . T&M business segment**



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



### Cost structure improvement measures

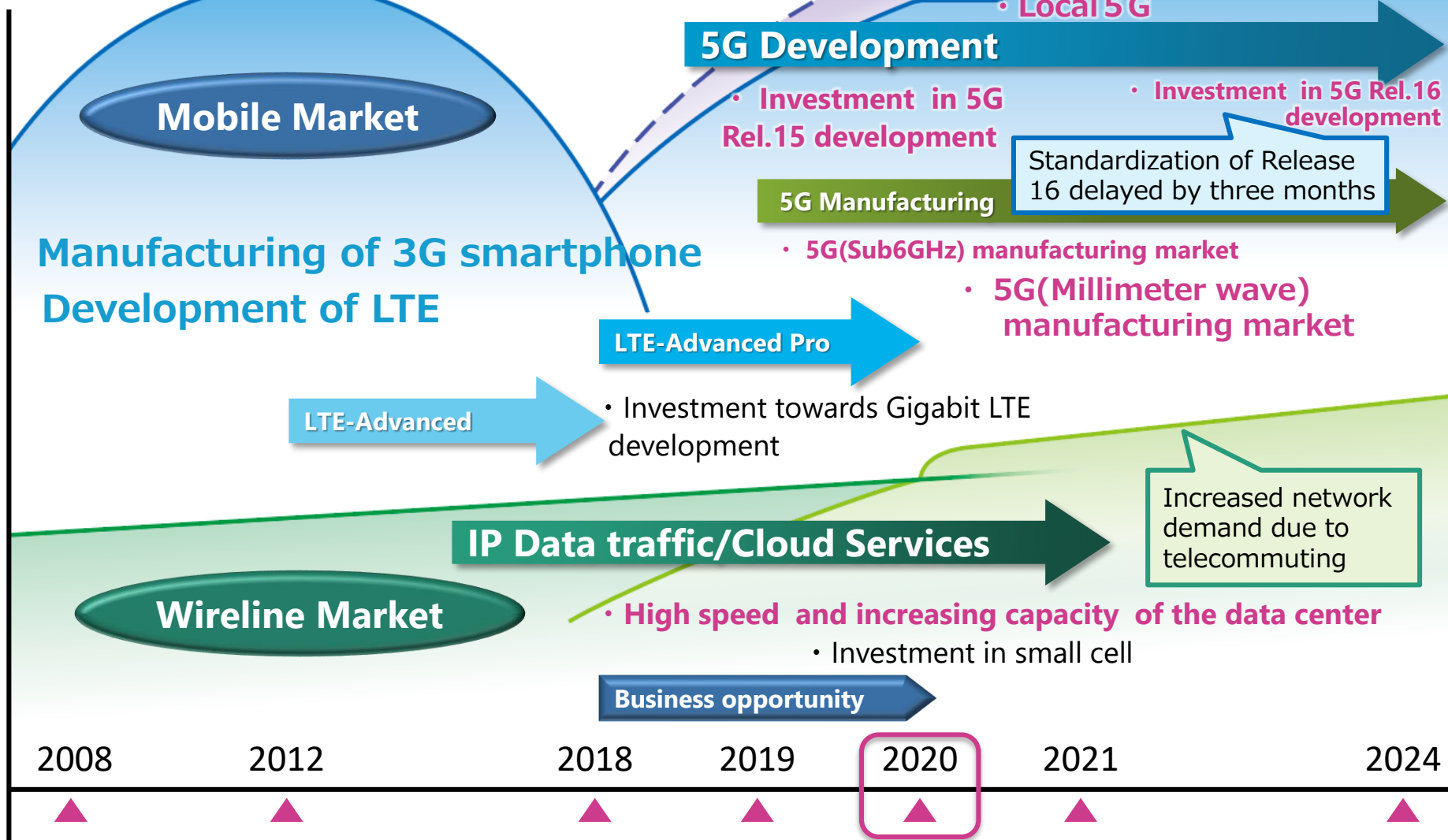
- Introduction of high value added solutions (professional services, software)
- Thorough enforcement of development ROI & ROIC management (\*1)
- SG&A expenses: Organizational structure and optimal allocation of human resources in response to changes in customer trends

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



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

Market size





# II -2-1. Current Worldwide 5G Situations

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

- China's lead has become clear
- 5G in European market has the possibility of decelerating due to influence of US-China trade conflict
- 5G in Korea has the possibility of stalling due to technical hurdles of millimeter wave applications
- US is catching up by changing policy to pursue sub-6GHz

As of October 2020



## Europe

- ⊖ Concern for deceleration of 5G introduction for increased burden on operators due to the movements to remove Huawei by countries such as UK and France.
- Europe Committee is encouraging early introduction of 5G services



## Korea

- ⊖ Despite the large number of 5G subscribers of 6.8 million, customers are dissatisfied due to poor connectivity and low price-effective services
- ⊖ Planned introduction of millimeter wave services within 2020 has been postponed



## China

- ⊕ 5G subscribers already exceed 100 million.
- ⊕ 410 thousand 5G base stations
- ⊕ 62% of new terminal devices sold in July were 5G capable
- ⊕ 75% of 5G Smartphones worldwide today are made by Chinese manufacturers



## US

- ⊖ Slow subscriber growth for 5G millimeter services of VzW
- ⊕ TMO is leaping forward with rapid increase of 5G sub-6GHz subscribers ⇒ VzW and AT&T are changing policies to focus on sub-6GHz
- ⊕ US Government is releasing 3.4-3.5GHz following 3.5-3.6G
- ⊕ iPhone 12 released



## India/South East Asia/Oceania

- 5G services have been started in Australia, Thailand, Philippines
- ⊖ India has determined to remove of Huawei and ZTE
- Full-scale spread of 5G is predicted to be after 2022



## Japan

- 330 thousand of 5G subscribers (as of end of June)
- MIC\* has moved 5G base station installation plan forward
- NTT Docomo aims to have 2.5 million subscribers by March 2021 (SoftBank aims 1.8 million by 2023)
- Each operator plan on introduction of SA\*\* services in 2021
- NTT announced to make NTT DoCoMo its wholly owned subsidiary

\*MIC: Ministry of Internal Affairs and Communications

\*\*SA: 5G Stand Alone



# II -2-2. Roadmap of 5G

\* Created by Anritsu referring to publicly available information

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



Launch a service Under investigation

(As of the end of Sep. 2020.  
Selected major countries)



# II -2-3. Digest of Rel-16 & Rel-17

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



CY2018

CY2019

CY2020

CY2021

Release15

Release16

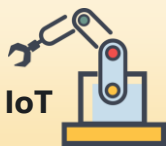
Release17



Extreme Mobile Broadband

Ecosystem Growth

Industrial IoT



- 5G system resilience (securing multiple paths by CoMP, multi-TRP, etc.)
- **NR-U**: Use of unlicensed spectrum (5GHz band, 6GHz band)
- Local 5G (introduction of non-public network system)

Automobile, etc.



- Enhancement of URLLC
- Support of time synchronization for TSN★
- High-precision positioning function (within several meters)

- **5G V2X**: Enhancement of C-V2X

- **"NR-Light"** for Industrial IoT (for MTC; monitoring cameras and wearable devices, etc.)
- NR-U of 60GHz band

- High-precision positioning function (within several decimeters)

- **Sidelink Communication** enhance (inter-device communication without BS)
- Multi cast for V2X
- Non-terrestrial networks (satellite, etc.)

Broadband enhancement

Network deployment



- **IAB**: Integrated Access and Backhaul (mmWave using inter-BS communication)
- Wireless-wireline convergence

- Use of frequencies exceeding 52.6GHz (extension to 71GHz)
- Network slicing enhancement
- Network automation enhancement

Device enhancement



- Device power saving
- Enhancement of Massive MIMO (multi-user MIMO)

- Further device power saving
- Further enhanced MIMO
- Multiple USIMs
- Cloud gaming QoS

NR-U: NR-Unlicensed

★TSN (Time Sensitive Networking) : A standard originally used for networks that guarantees synchronization of time and real-time performance in Ethernet communications.

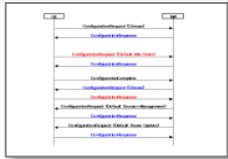


# II -2-4. 5G terminal development/manufacturing process and test solutions

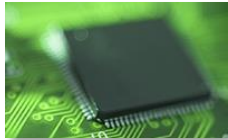
Sub6 /Millimeter wave

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

Millimeter  
wave

Mass production

Mass Production  
Test at UE  
Vendors & EMS

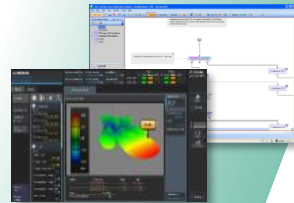


RF Calibration  
& Inspection



**MT8000A**

Radio Communication  
Test Station



**ME7873NR/ME7834NR**

5G NR Conformance Test and  
Carrier Acceptance Test System

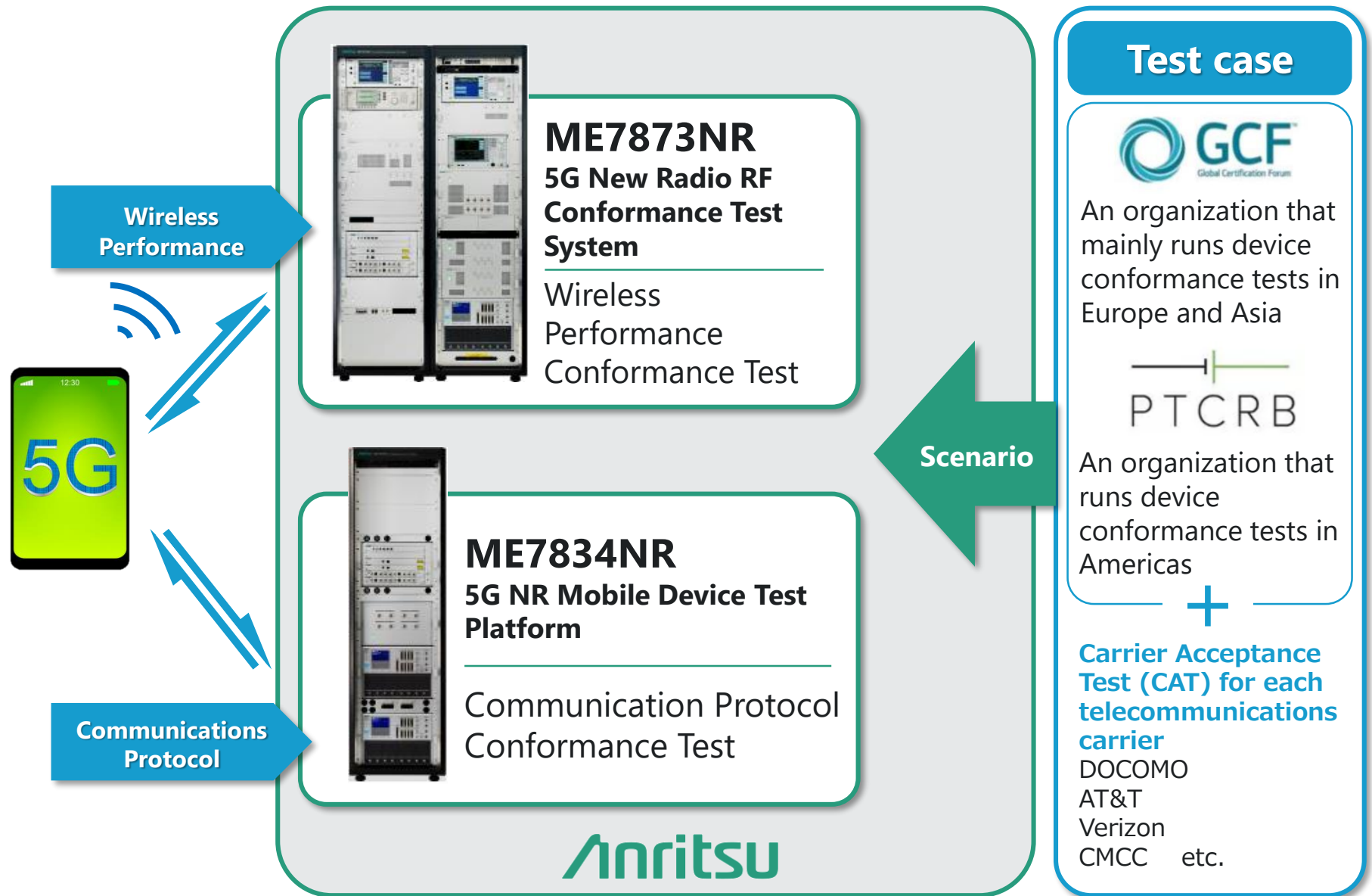


**MT8870A**

Universal Wireless  
Test Set








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





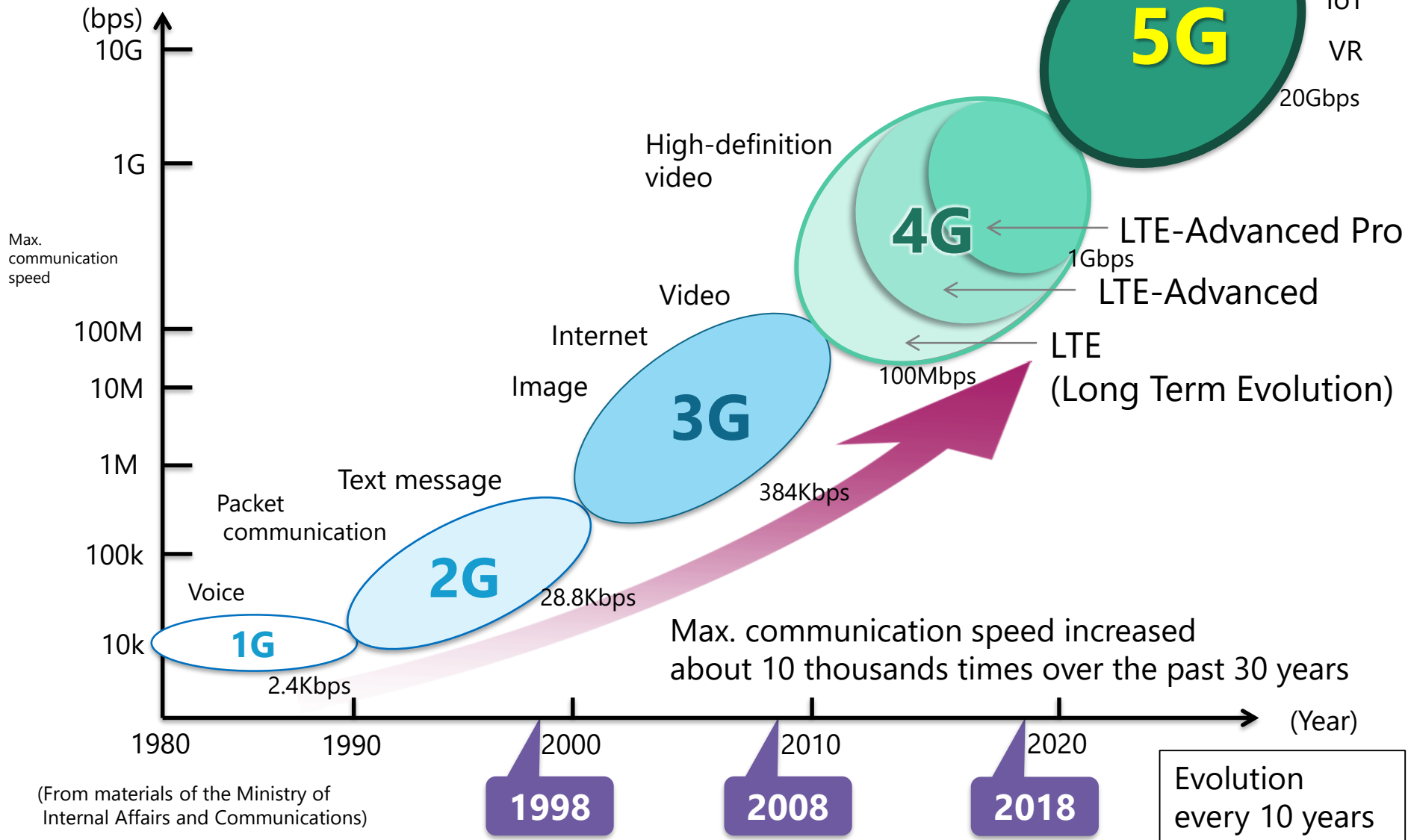
## II -2-6. Mobile R&D business and solutions (The case of LTE)

	Platform(Core) Development	Conformance test		Operator Acceptance test	Smartphone Commercial test
		RF	Protocol		
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 throughput • Battery consumption etc.
Test solutions					
Main Competitors	<div>Anritsu : No.1 position</div> <div>Rohde &amp; Schwarz</div>		Rohde & Schwarz, Keysight(Agilent, Anite), Spirent		Rohde & Schwarz, Keysight



## II -2-7. Evolution of mobile communication

Supporting evolution of mobile communication system





# II -2-8. Contributing to the establishment of 5G network infrastructure

**Features of 5G : 1/10×Latency**

**100×Peak Data Rate**

**100×Capacity**

**Smart Devices**



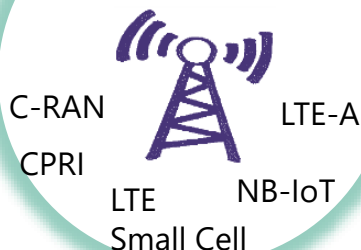
R&D and Manufacturing Solution for IoT Device/Module



**IoT Device / Module Measurement**

**Mobile Networks**

5G New RAT



Support for Mobile Network by Widespread products ranging from RF to optical



**Spectrum Analyzer  
Signal analyzer**

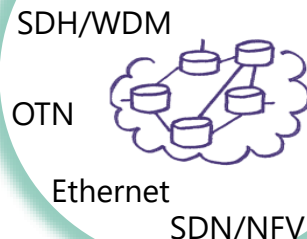
**New HH SPA**

**BTS Master**

**OTDR**

**Fixed Networks**

100G/400G



Support for high-speed 100G/400G communications

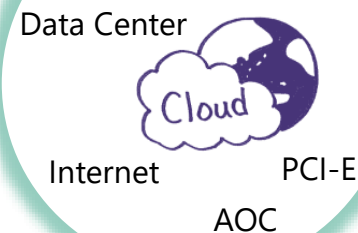


**40G/100G Analyzer**

**400G Analyzer**

**Cloud**

40G/100G



Continued world leader in bit error rate test



**BERTWave Series**

**Signal Quality Analyzer**

**eoSight  
Big Data Analytics**



## II -2-9. 5G will become the infrastructure of social innovation



Profitability

High

From now on it is necessary to establish  
"business strategy", includes making  
business partners

Major  
business  
areas up  
to 4G  
Smartphone  
/Tablet

Business area newly joining in 5G

Auto-  
motive

Industrial  
machinery

Home  
Security

Smart  
meter

Other  
IoT

Low

Low

Current  
Business area

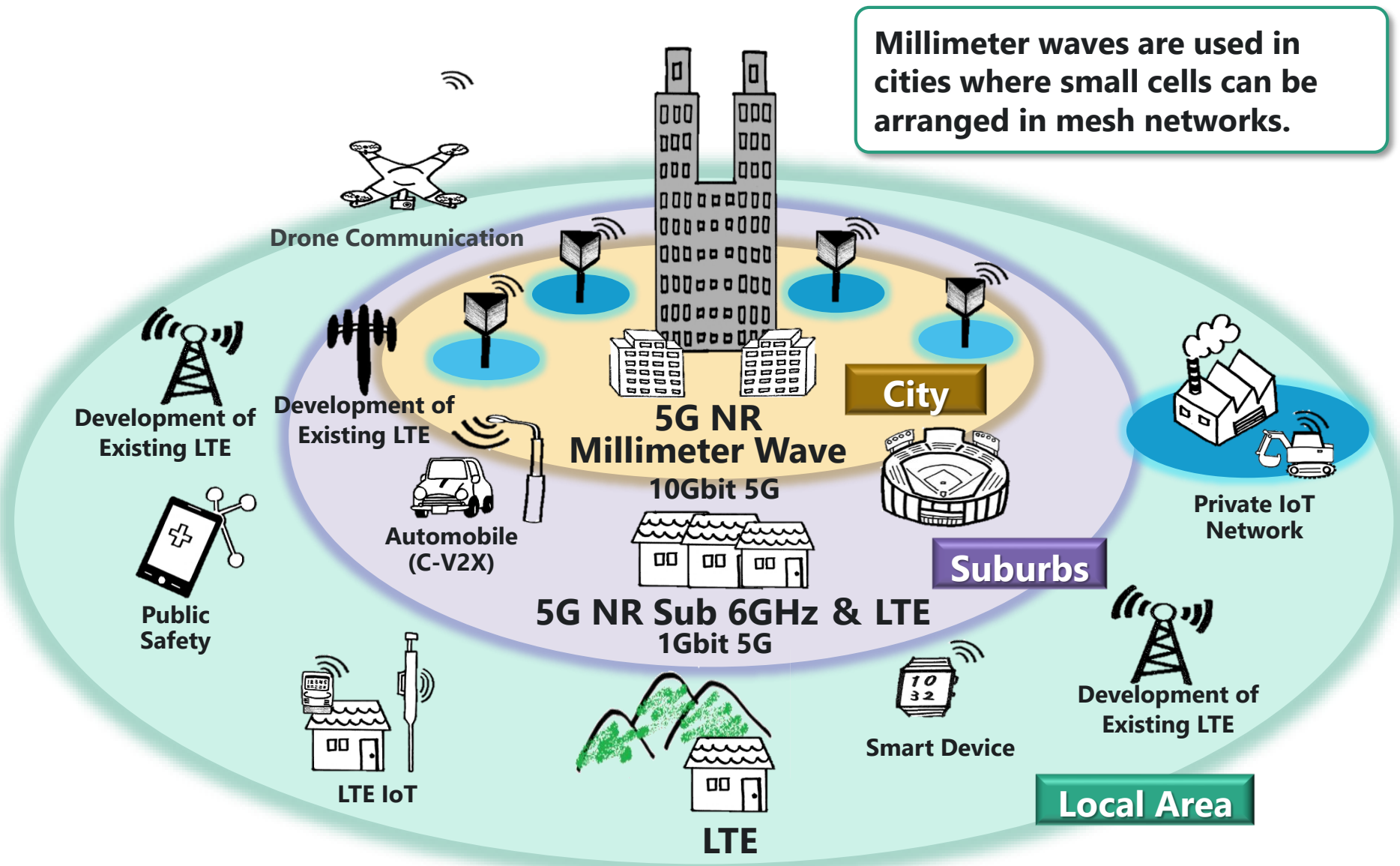
High

Number of  
connection

(Ministry of Internal Affairs and Communication)



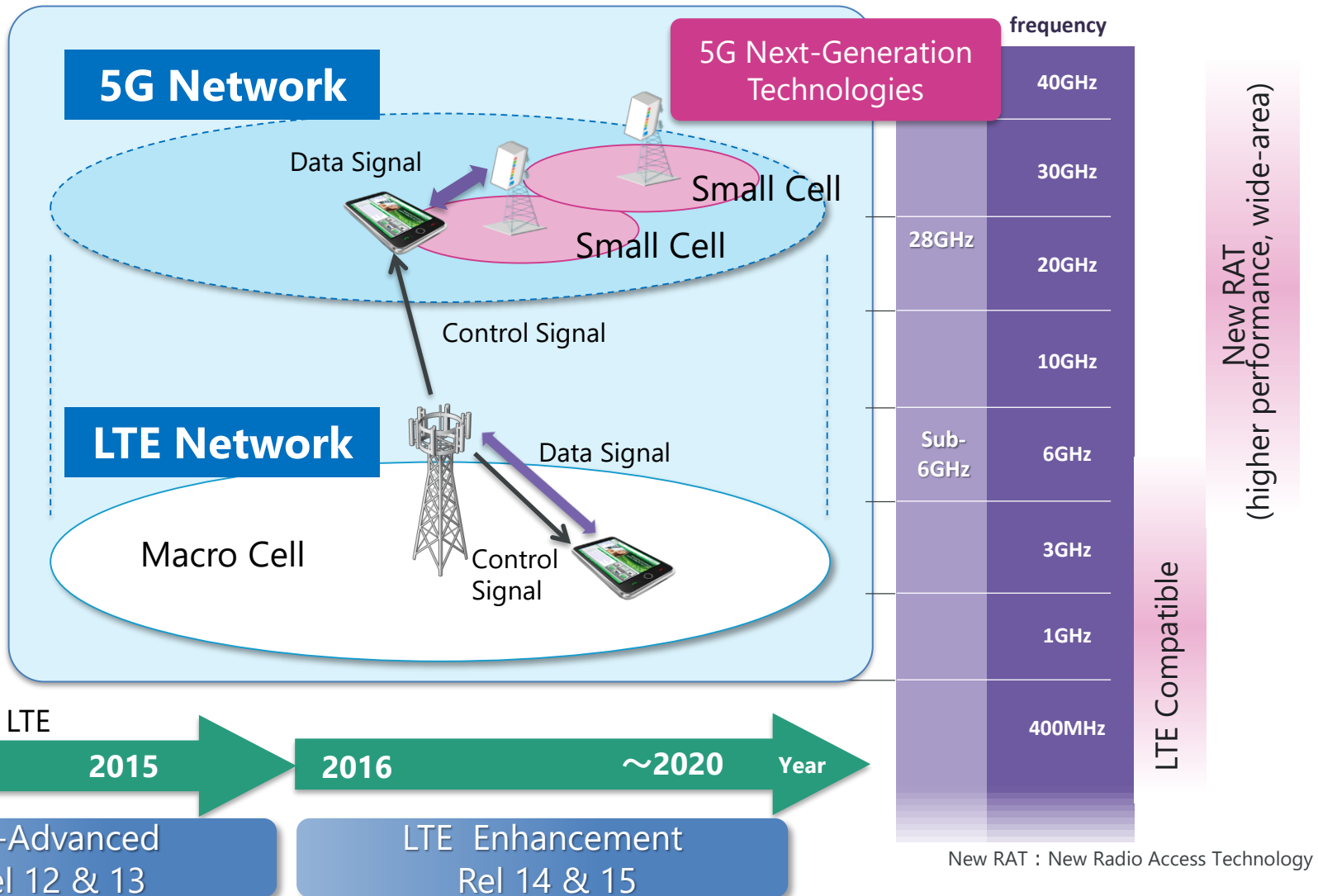
## II -2-10. Outlook for 5G Service Development





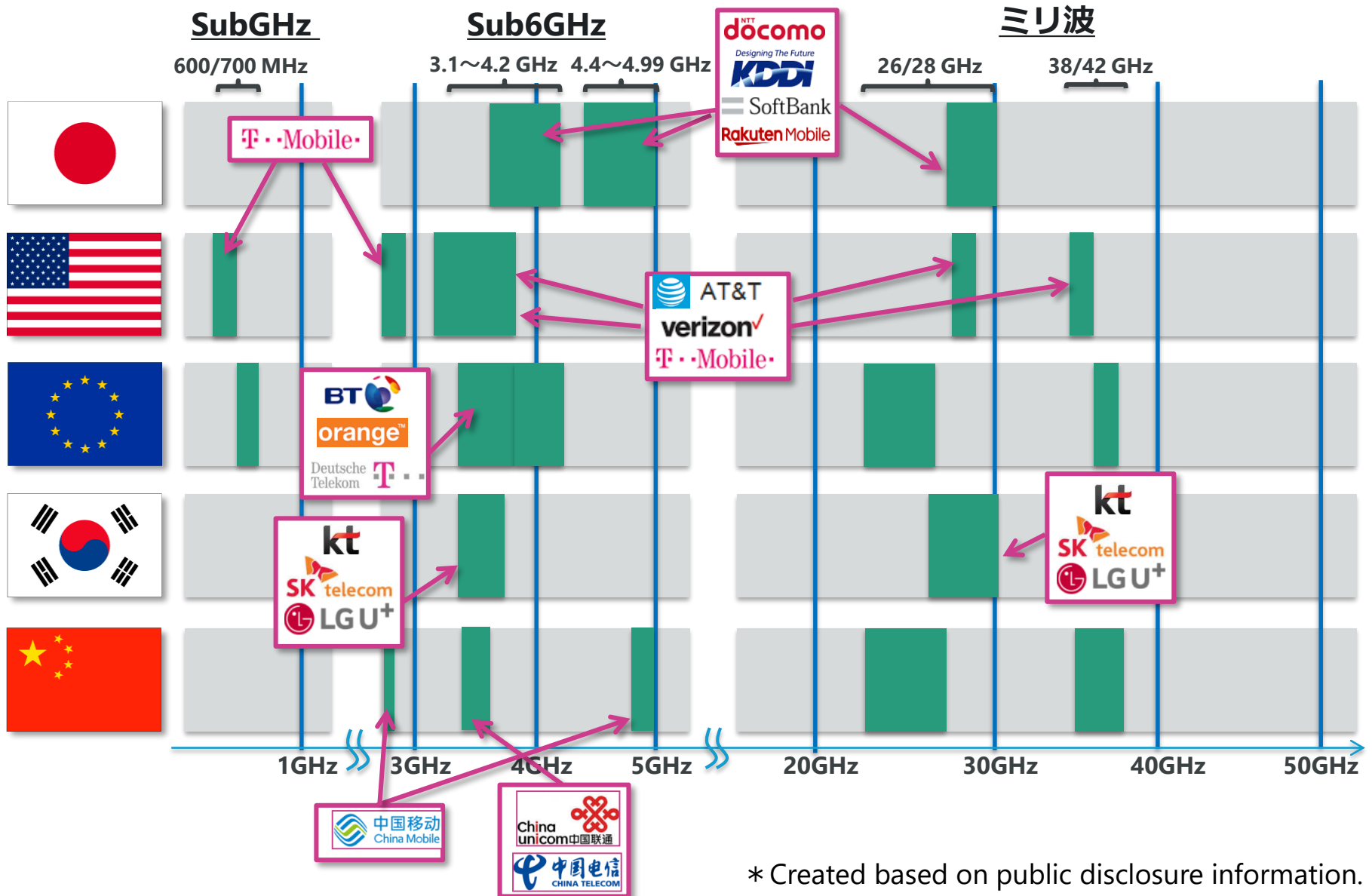
## II -2-11. 5G and LTE coexist and interwork

**5G = LTE Enhancements + Next-Generation Wireless Technologies**





## II -2-12. 5G Band Allocations in the World



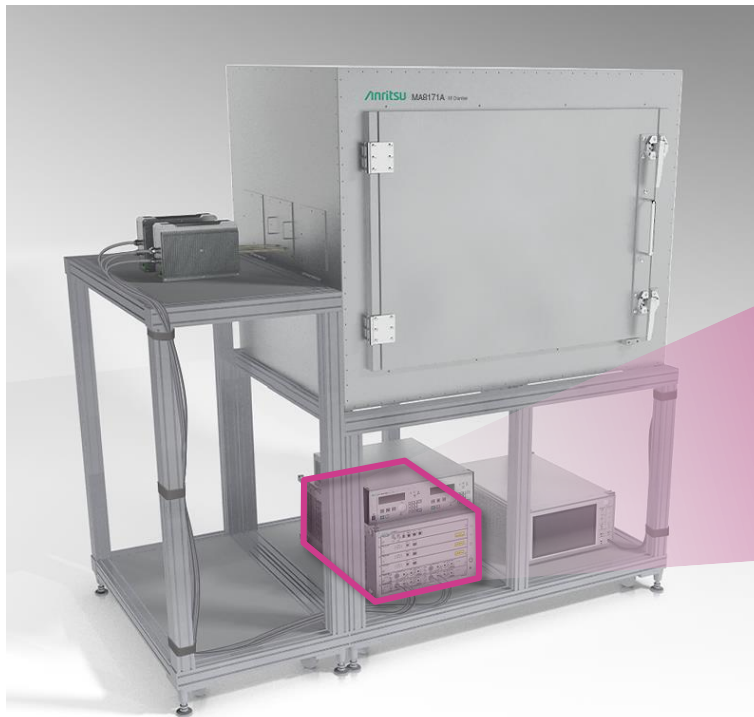
\* Created based on public disclosure information.



## II -2-13. 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

Chamber(Anechoic box)



MT8000A





## II -2-14. Role of MT8000A

### Real-world environment



**Emulated**

### Test environment



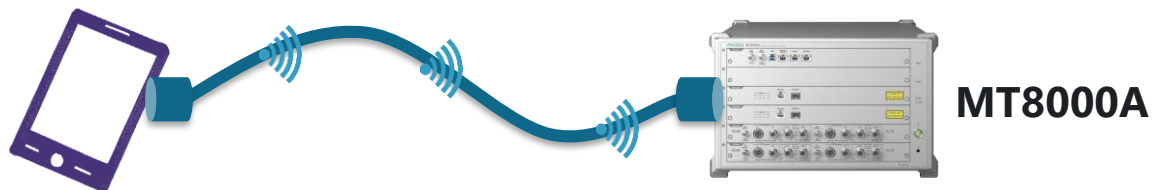
Enables a variety of simulations, including handling of errors which cannot be checked with a base station connection, and handover from one base station to another

**Emulates a base station to connect to smartphone and conduct performance testing**



## II -2-15. 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.**

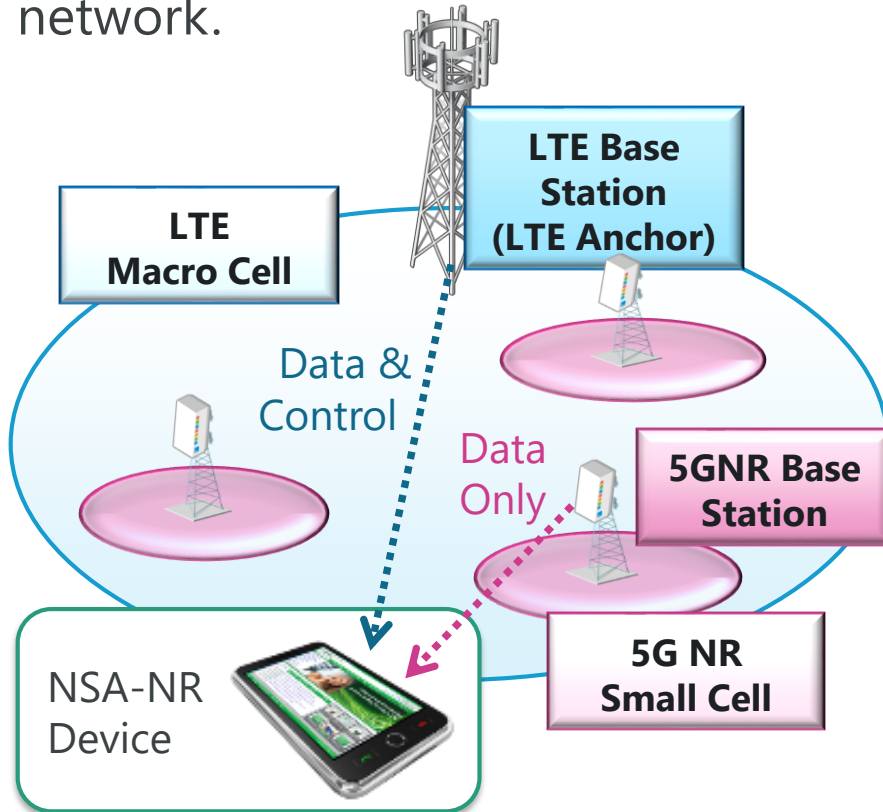




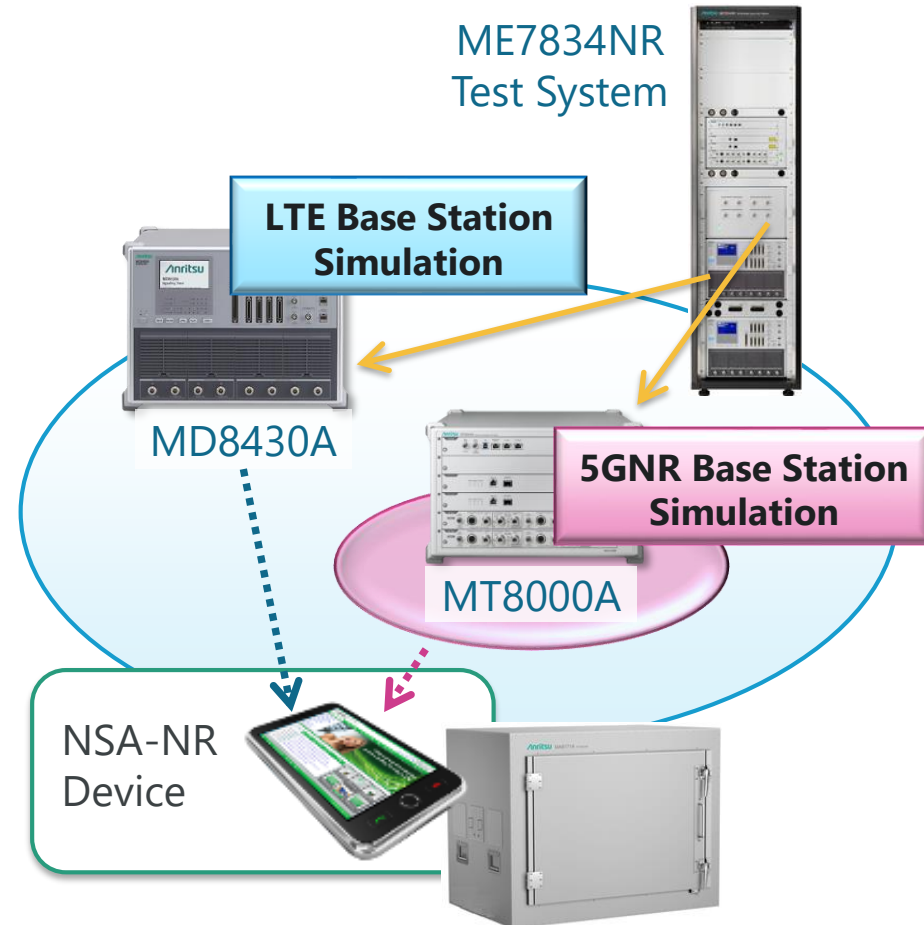
# II -2-16. Test solution for 5G NSA-NR terminal development

## NSA-NR Network Configuration

Introducing 5G utilizing the LTE core network.

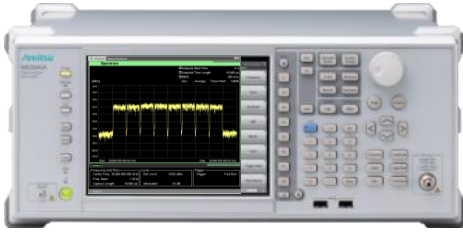


## NSA-NR Test Environment





## II -2-17. 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 -2-18. 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

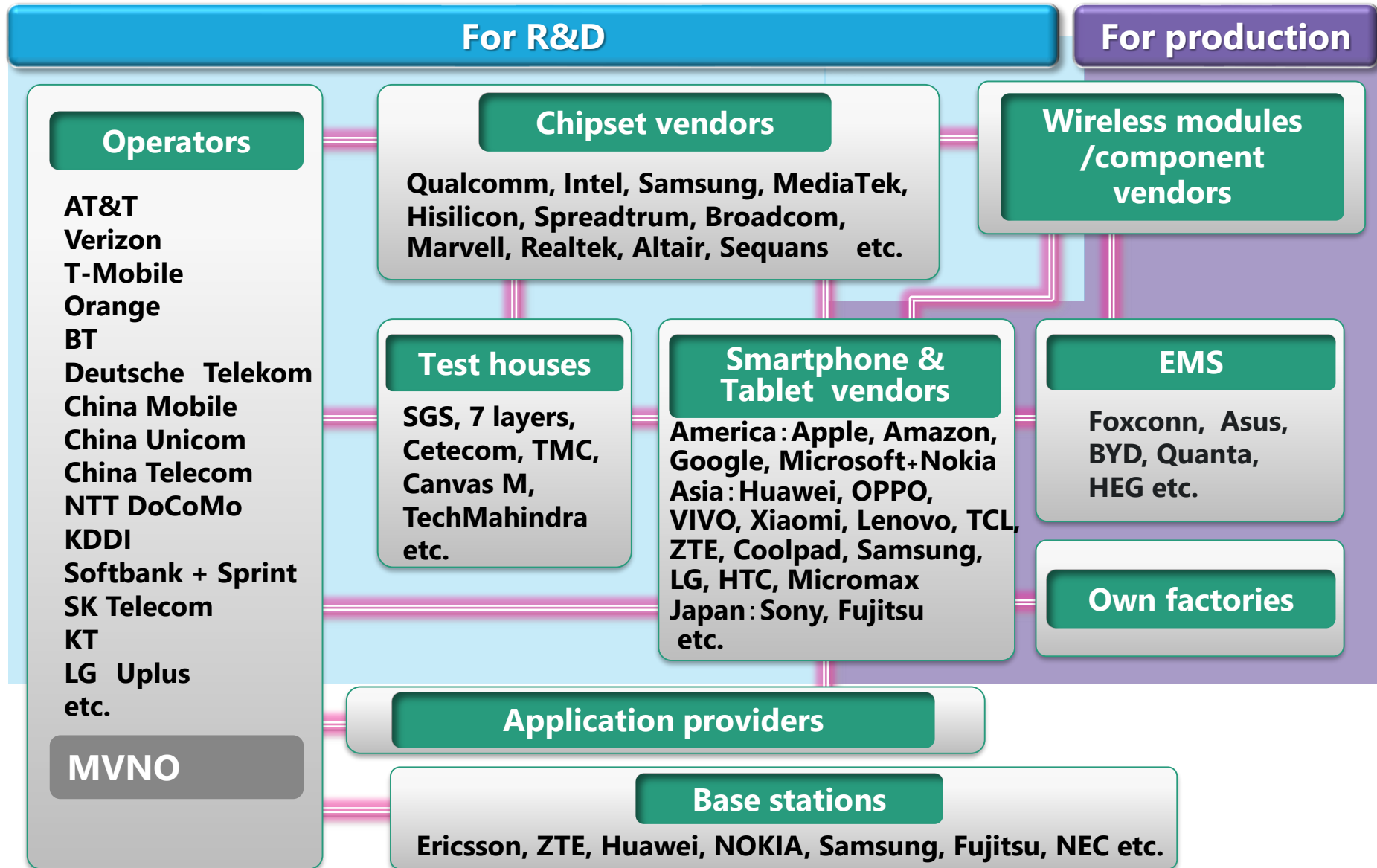
#### Usage: 5G Coverage Mapping

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





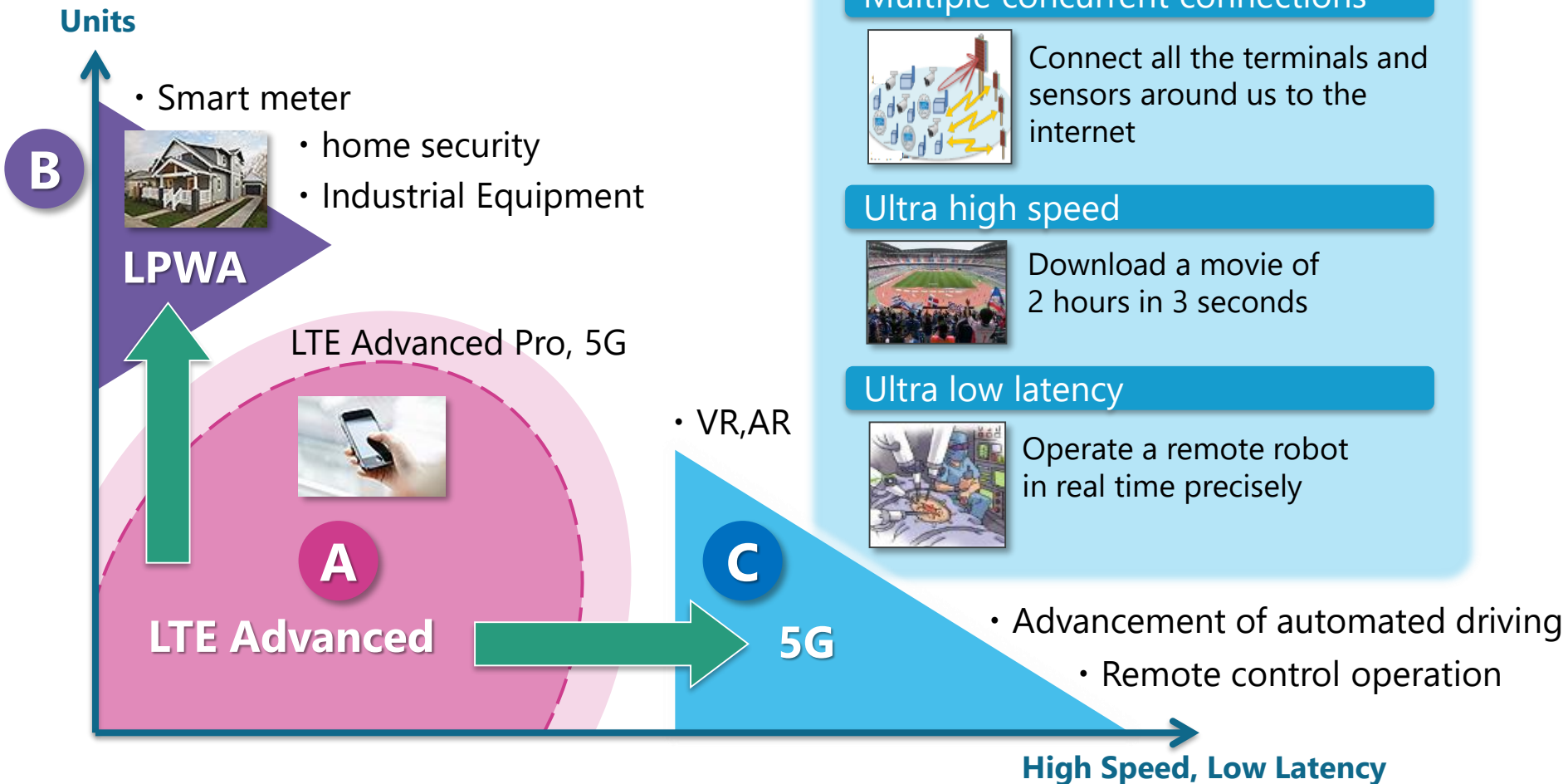
## II -2-19. Food chain and players in mobile telecom market





## 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

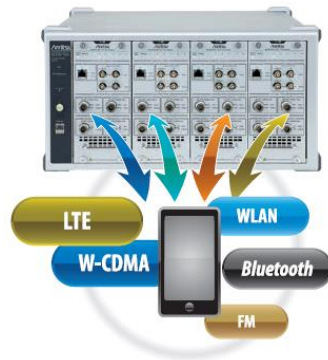
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### Current features

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

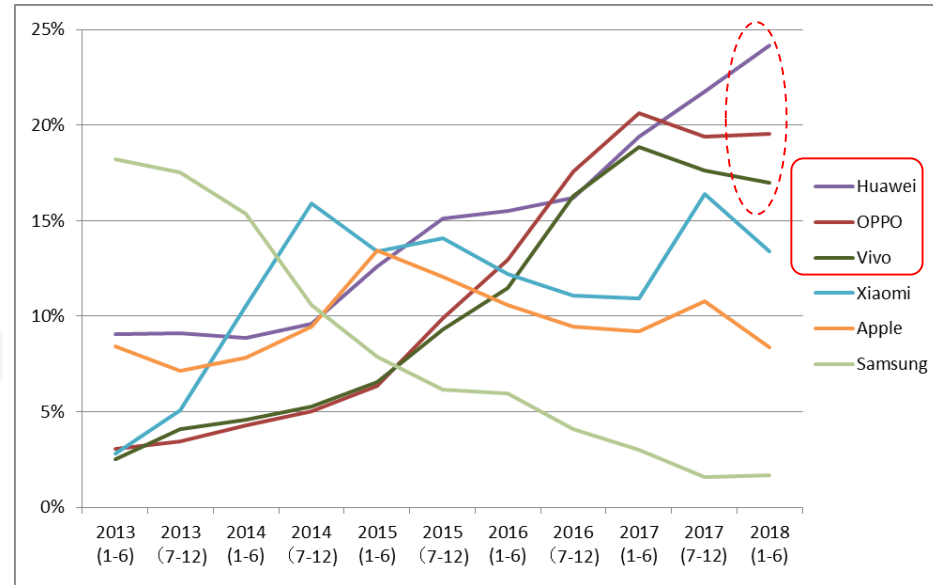
MT8870A  
**Universal  
Wireless Test Set**



**Main Competitors**

Rohde & Schwarz, Keysight

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 Windows RT and Proprietary  
Graph created by Anritsu based on Gartner research

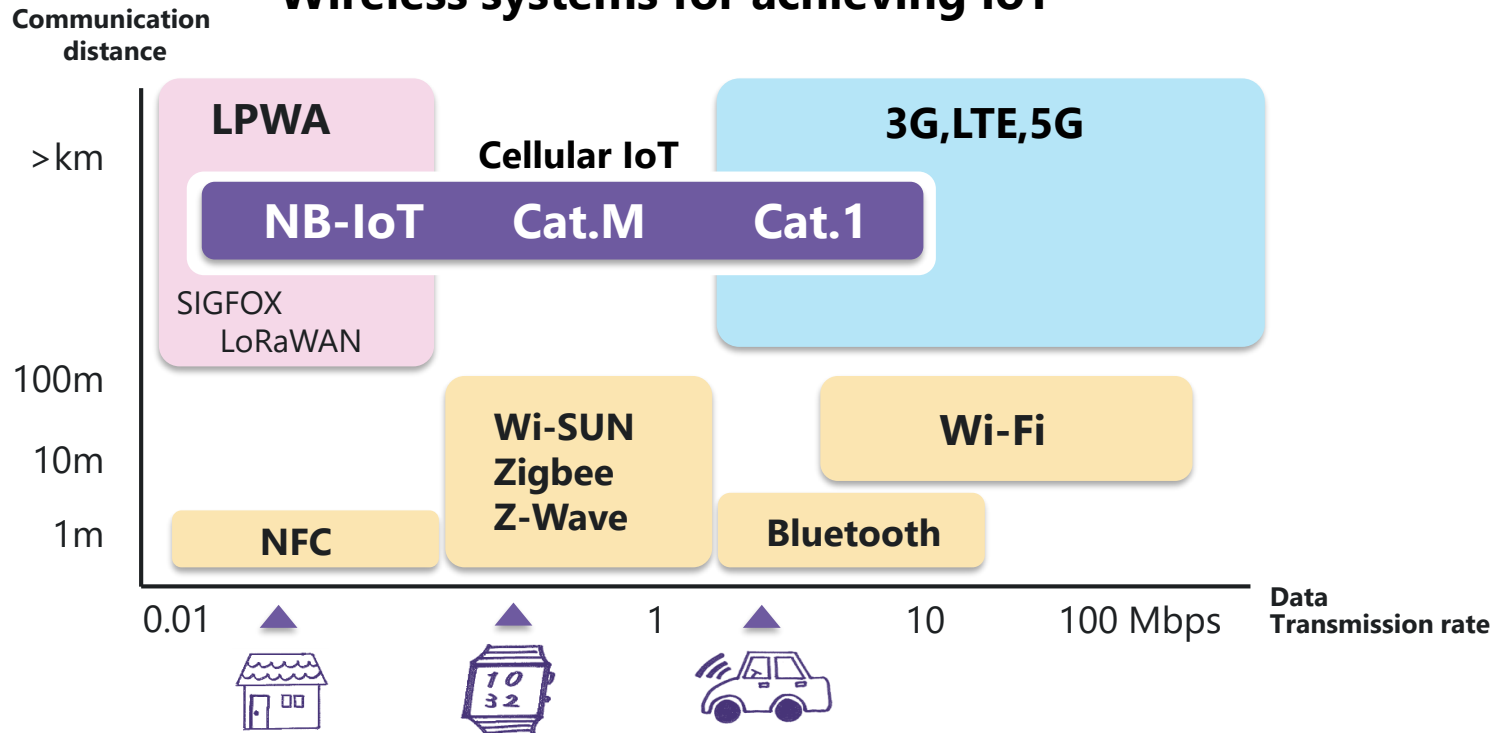
All statements in this report attributable to Gartner represent Anritsu's interpretation of data, research opinion or viewpoints published as part of a syndicated subscription service by Gartner, Inc., and have not been reviewed by Gartner. Each Gartner publication speaks as of its original publication date (and not as of the date of this presentation). The opinions expressed in Gartner publications are not representations of fact, and are subject to change without notice.



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

**B** -1

### Wireless systems for achieving IoT



### R&D Solutions for Cellular IoT

MT8821C  
**Radio Communication  
Analyzer**



Chipset



SiP  
(System in Package)

MD8430A  
**Signalling Tester**



### Main Competitors

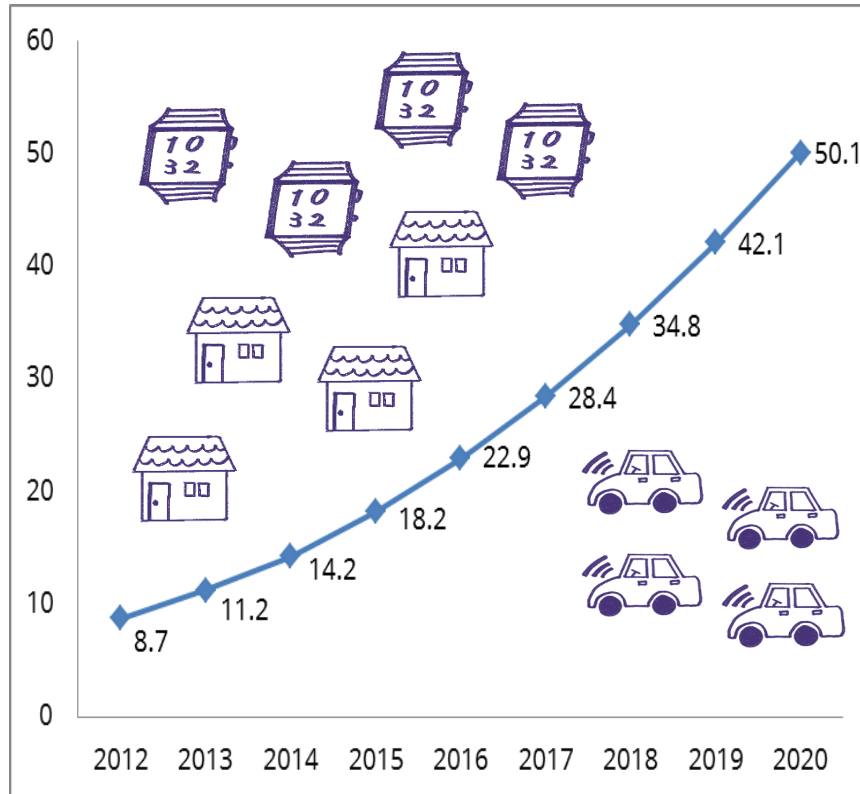
Rohde & Schwarz, Keysight



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

### B -2

[Billions] The Number of IoT Devices



\*Source : World Economic Forum

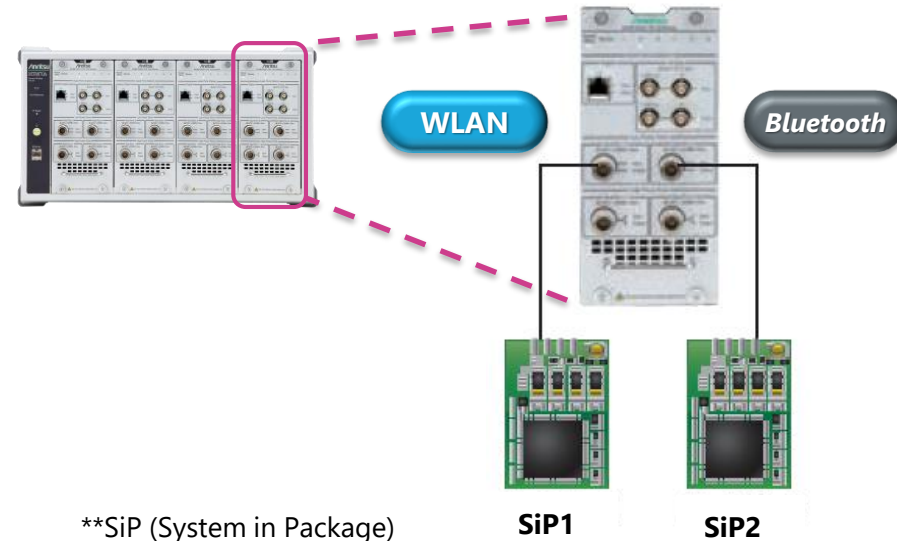
- The growth of Connectivity & Module markets for IoT

### For WLAN / Bluetooth

#### MT8862C Wireless Connectivity Test Set



#### MT8870A Universal Wireless Test Set



### Main Competitors

Teradyne, National Instruments, Rohde & Schwarz, Keysight



## II -3- 4 . Local 5G

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

C - 1



**AGV:** Automatic (Automated) guided Vehicle

Source: Local 5G Review Working Group Report Draft, Land Mobile Communications Division, Telecommunications Bureau, Radio Department, Ministry of Internal Affairs and Communications



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

## Latency measurements in remote operations

Measurement of **latency** in remote operation of robots



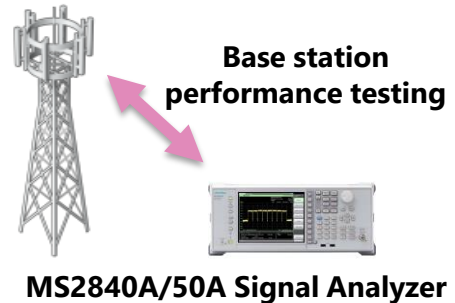
MT1000A Network Master Pro

## Base station performance testing and communication area measurements

Measurement of electric field strength in the communication area



ML8780A/81A Area Tester



MS2840A/50A Signal Analyzer

## Measurement of cellular interference

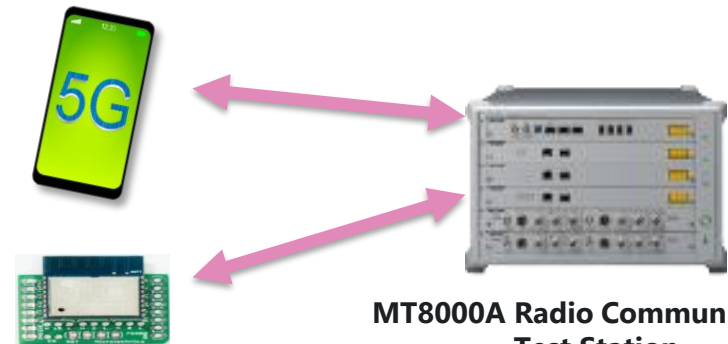
Measurement of cellular interference due to overlapping local 5G areas



MS2090A Field Master Pro

## Device and sensor module performance testing

Testing of device and sensor module radio characteristics and protocol

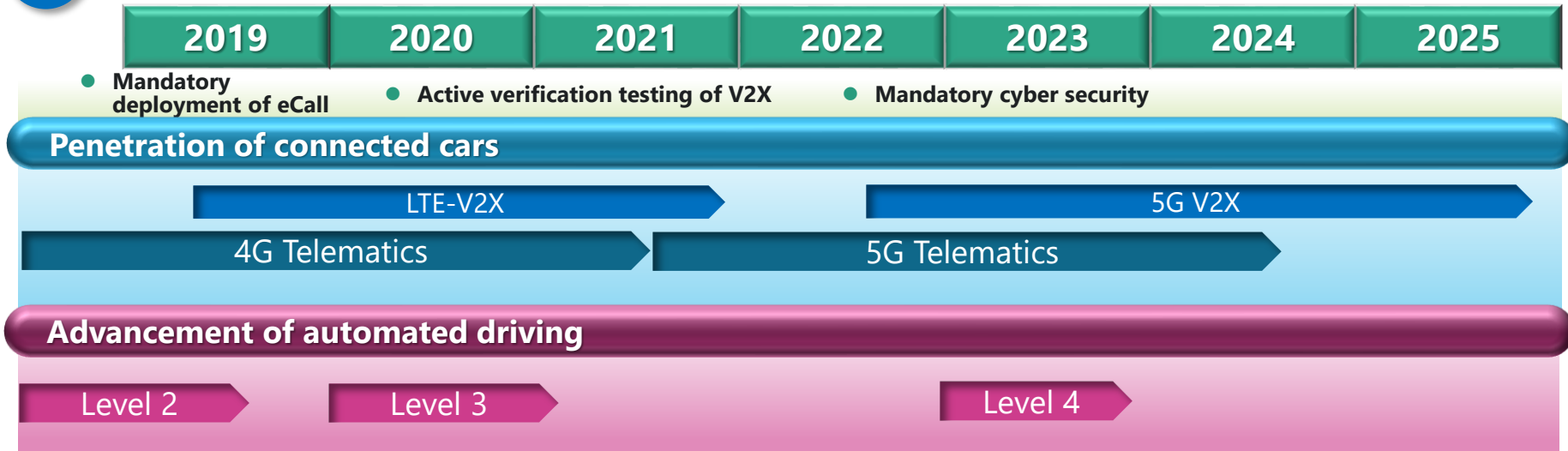


MT8000A Radio Communication Test Station



# II -3-6. Introduction of new technologies in the automotive market

## C - 2 and Anritsu's initiatives

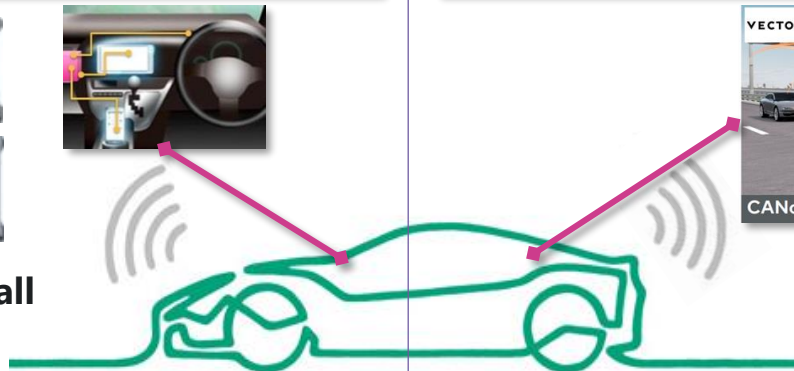


### Connected cars / V2X

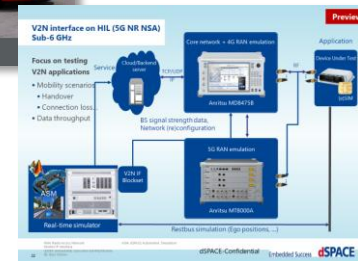
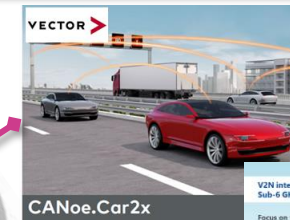
V2X (vehicle -to-vehicle / Road-to-vehicle communication)



- UNR-144 (eCall), NG eCall
- Cyber Security
- V2X (802.11p, C-V2X)



### Building in V2X into HILS with major vendors for autonomous driving





## II -3-7. 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**

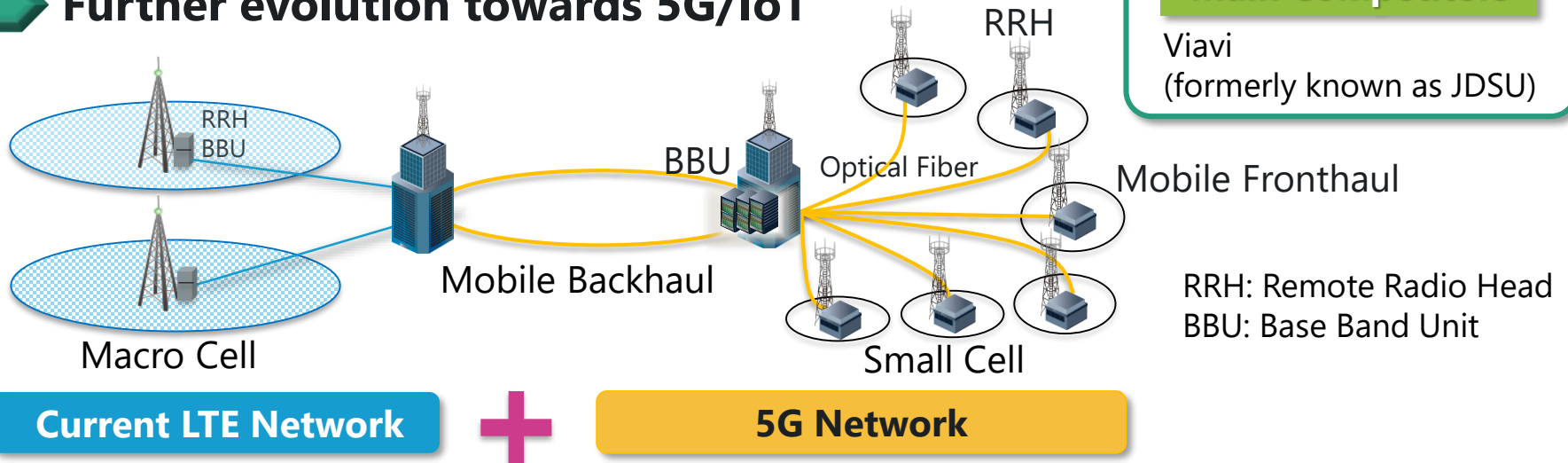
#### Chipset Vendors

**Semi-conductors for communication**

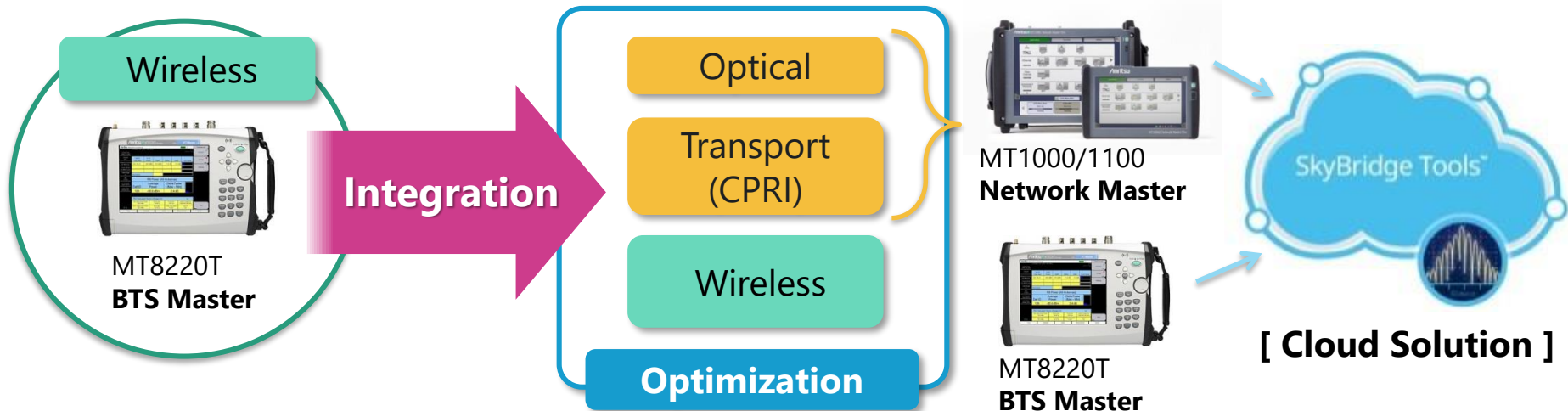


## II -4. Network Reshaping Test Solutions

### ➡ Further evolution towards 5G/IoT



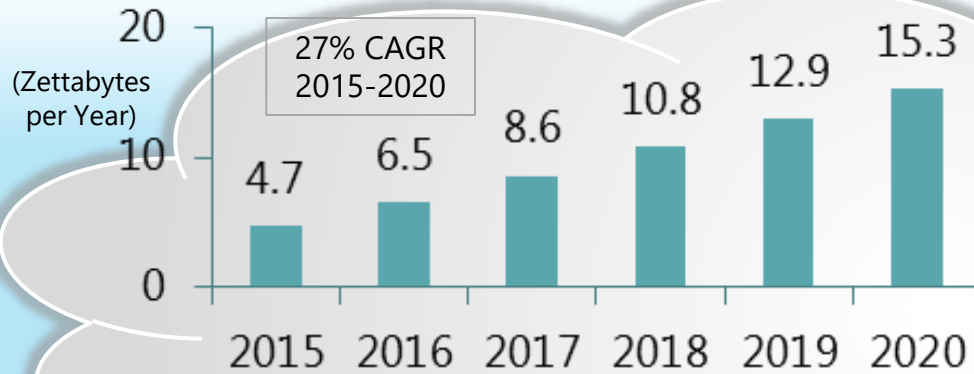
### ➡ Reshaping the Future of Network Test Solution





## II -4-1. Test Solutions for support of Cloud Service expanding

### Data traffic extending explosively



**Global Data Center Traffic Growth**  
Source: Cisco Global Index 2015-2020



**Data Center**



- Expansion of Data Center
- Higher- speed
- Larger- capacity
- Conversion to fiber optics

**DCI**  
High speed communication  
10GE/40GE → 100GE/400GE

**Data Center**



**Main Competitors**

**Keysight**

Viavi (formerly known as JDSU)

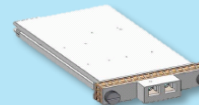
**R&D**



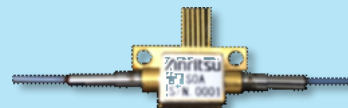
Equipment (Router, Switch)  
vendors in Data Center



Optical module  
vendors



Optical device  
vendors



**Manufacturing, I&M**



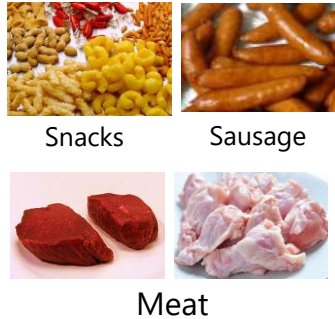


### **Ⅲ. PQA Business segment**



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

## General examples of food production process



Snacks

Sausage

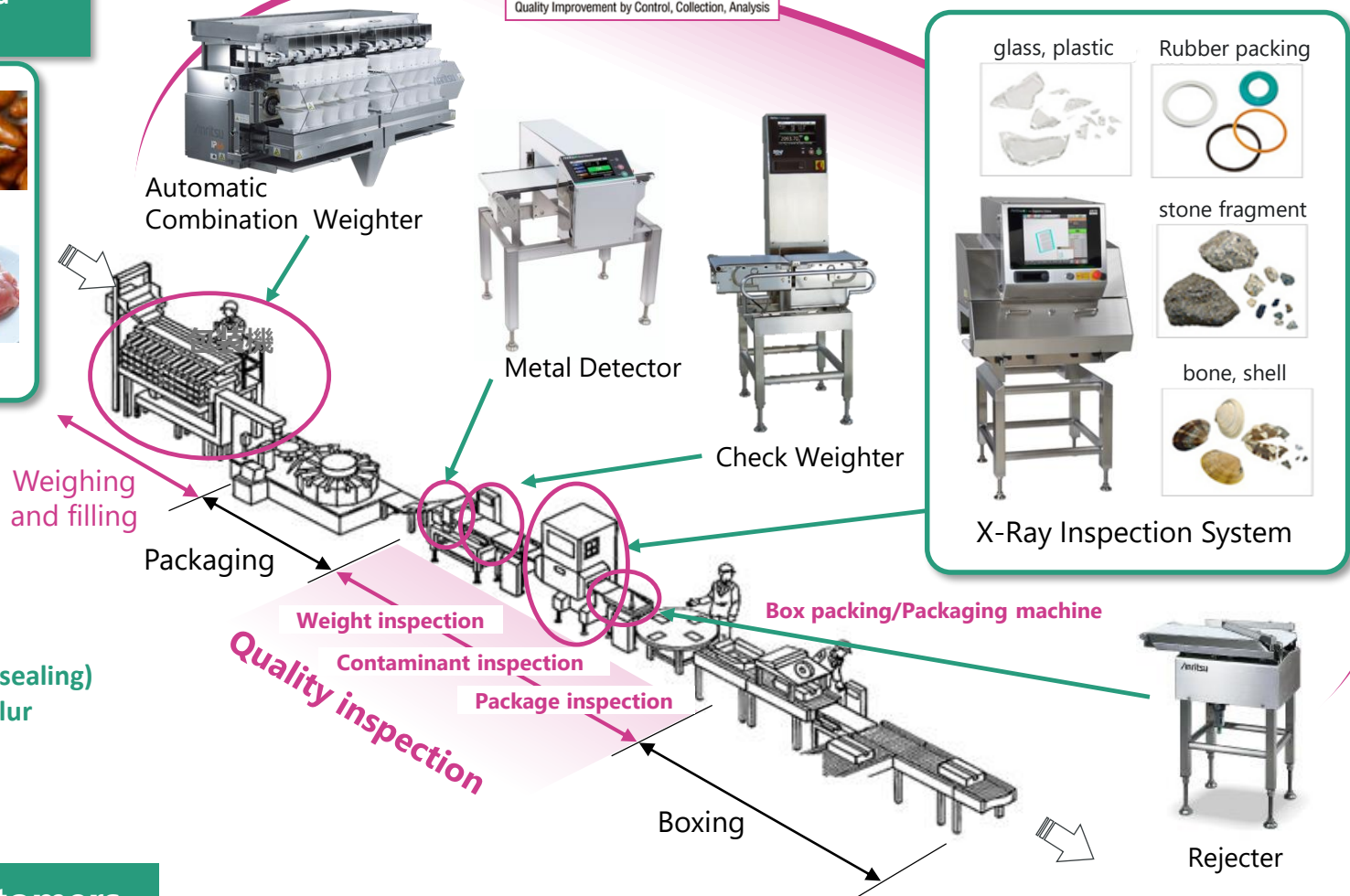
Meat

Meat

- Contamination
- Variation in the amount of contents
- Breaks and chips
- Defective packaging (sealing)
- Printing error/Print blur

**QUICCA**  
Quality Improvement by Control, Collection, Analysis

Overall quality management and control system

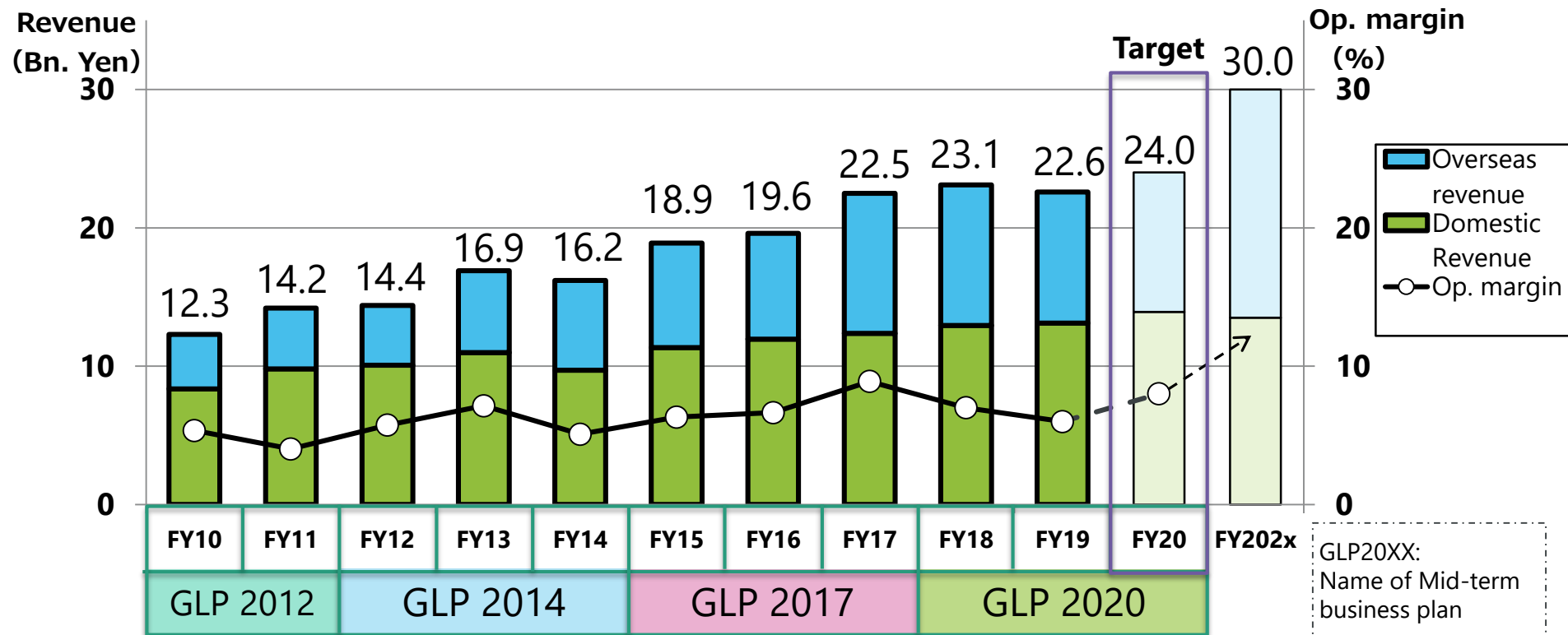


## Major customers

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
Japan	Improve market share through quality assurance solutions with high added value in response to cutting-edge needs

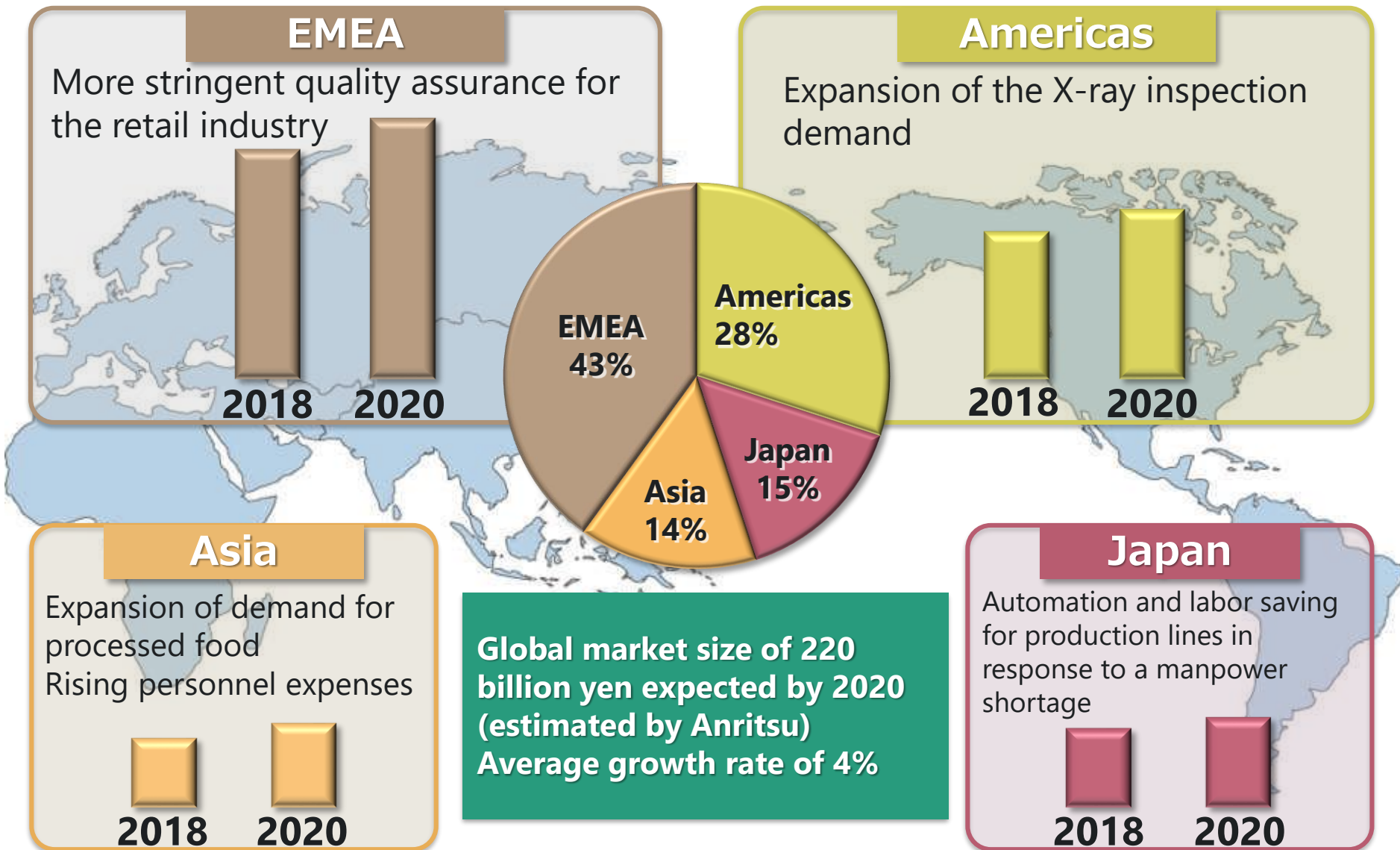
### Main Competitors

Mettler-Toledo, Ishida, Marel

\*Anritsu group announced the FY2020 Forecast on April 27th, 2020.



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





## III-4. Solutions for pharmaceutical market

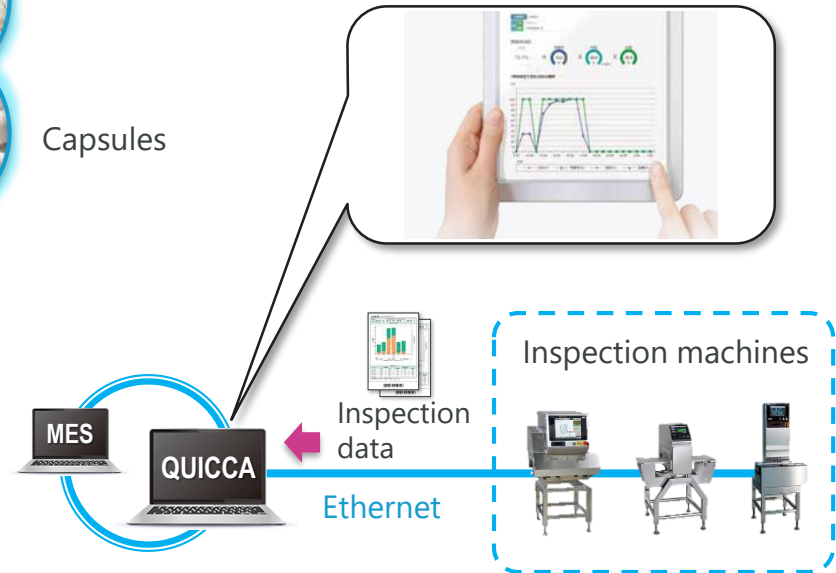
### Metal detectors for pharmaceutical market

#### KDS1004PSW Metal detectors for pills and capsules



#### Quicca Pharma

Comprehensive quality control management system for pharmaceuticals



#### ■ Features

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

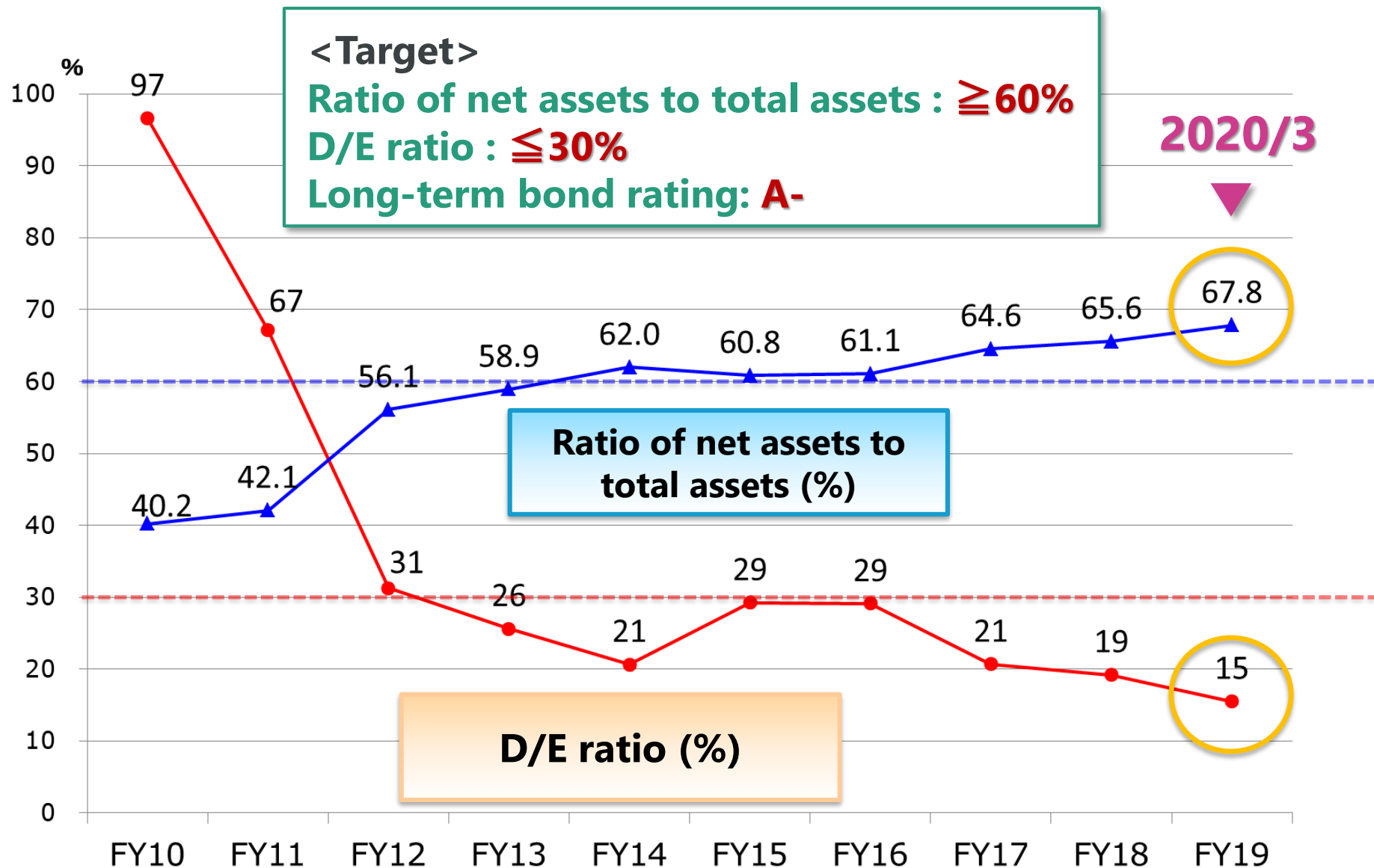
- Can detect metal fragments down to 0.1 mm

#### ■ Customers

- Pharmaceutical companies



## IV-1. Financial Strategy



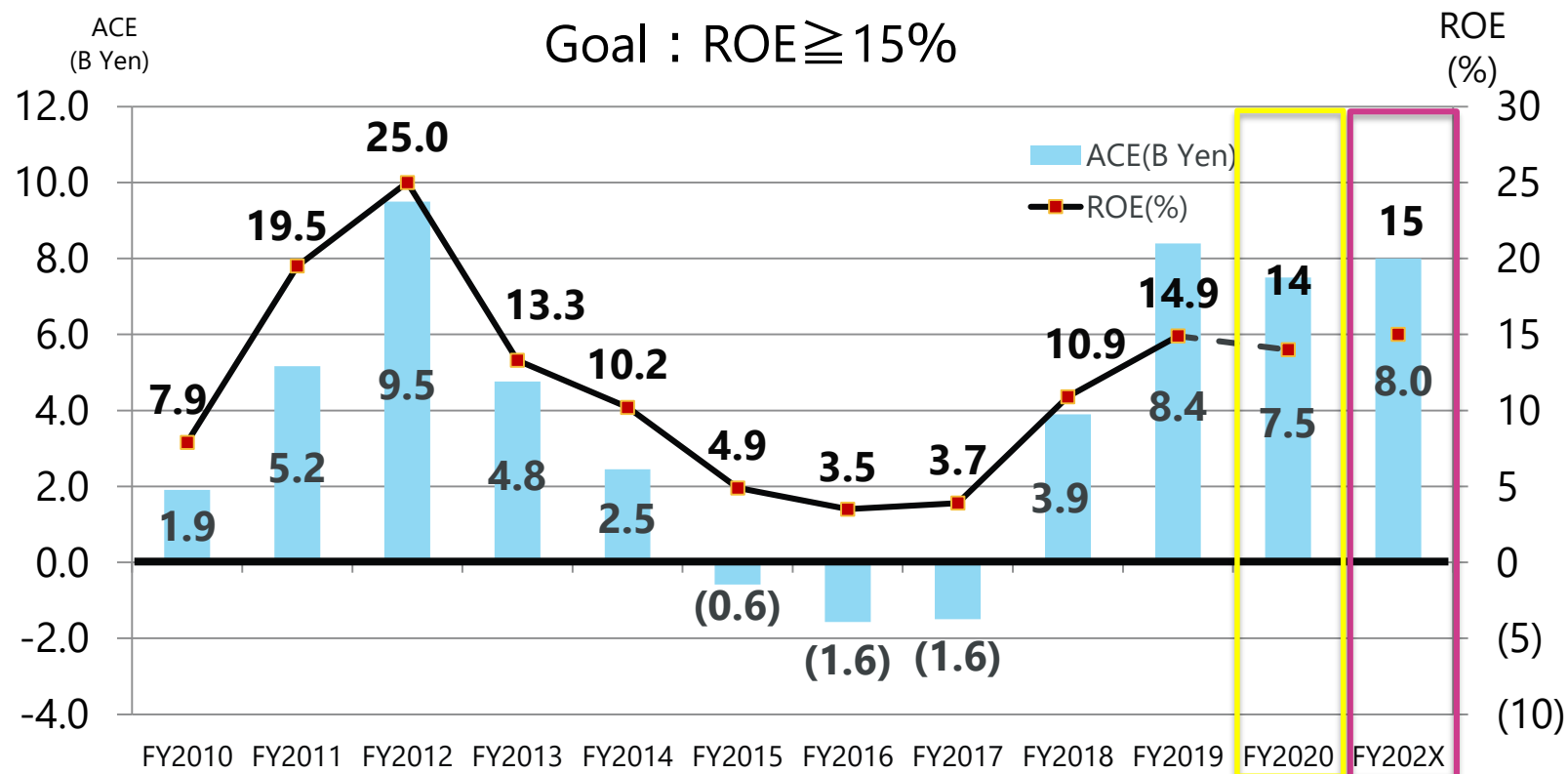


## IV-1-1. GLP2020 : Financial strategy

### 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

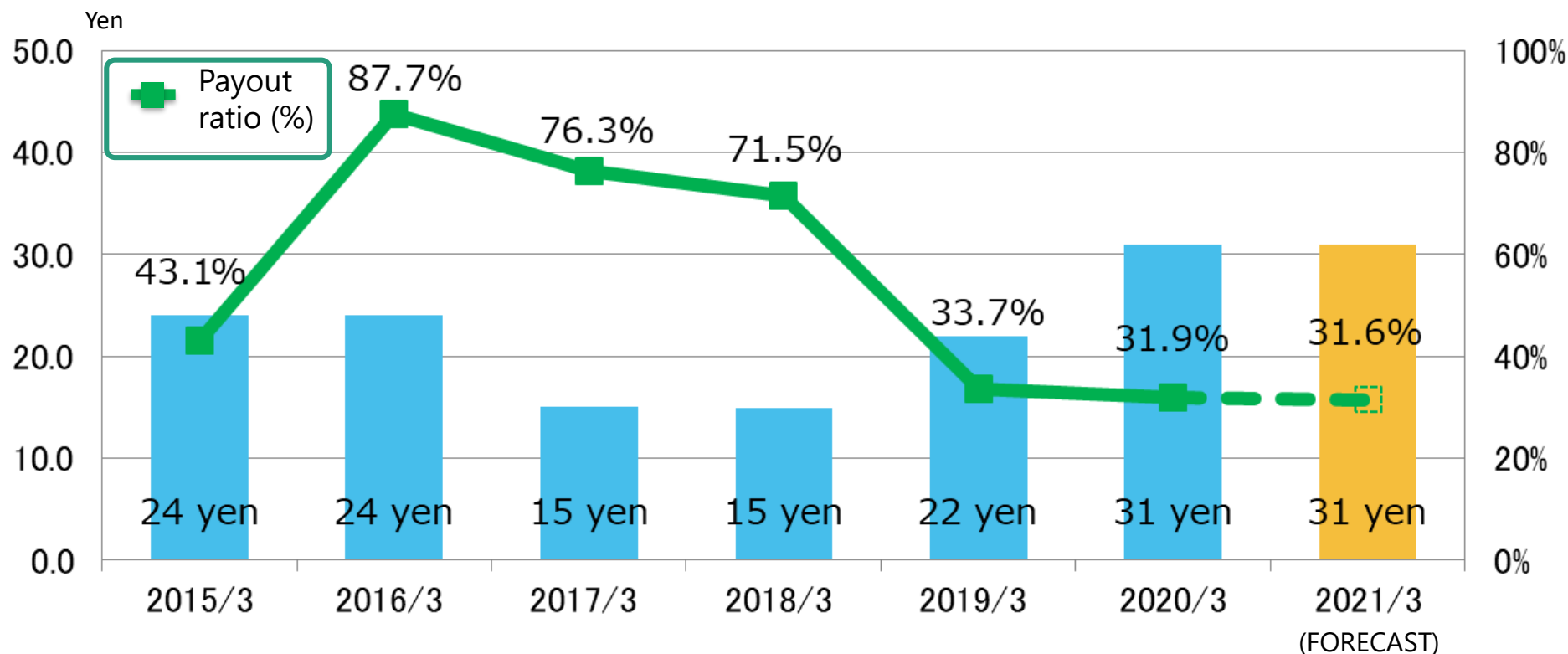
1. Take the basic approach of raising dividends on equity (DOE) in accordance with the increase in consolidated profits for the fiscal year
2. Aim at a consolidated dividend payout ratio of 30 percent or more
3. Flexibly provide shareholder returns taking into account the total return ratio



## IV-2-1. Dividend forecast

### Annual dividend

	Dividend per share	Profit	Payout ratio	DOE	ROE
<b>FY2020 (Forecast)</b>	<b>31 yen</b>	<b>13.5 B yen</b>	<b>31.6%</b>	<b>4.4%</b>	<b>14%</b>
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

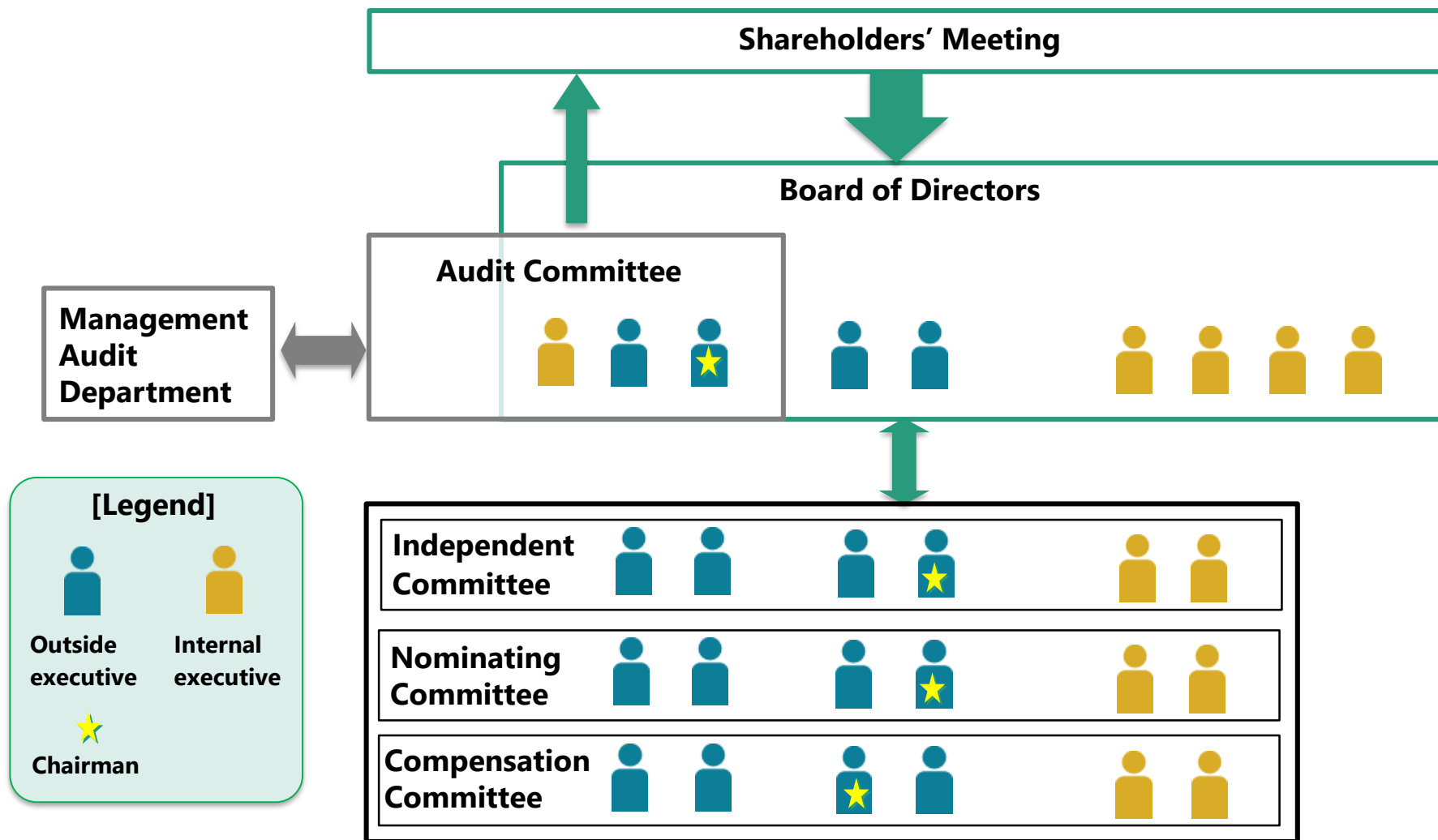
Contributing to the creation of shared value with collaboration among all stakeholders





## IV-4. Corporate Governance System

For improving competitiveness and continuously enhancing corporate value





# IV-5. Introduction to the Advanced Technology Development Lab

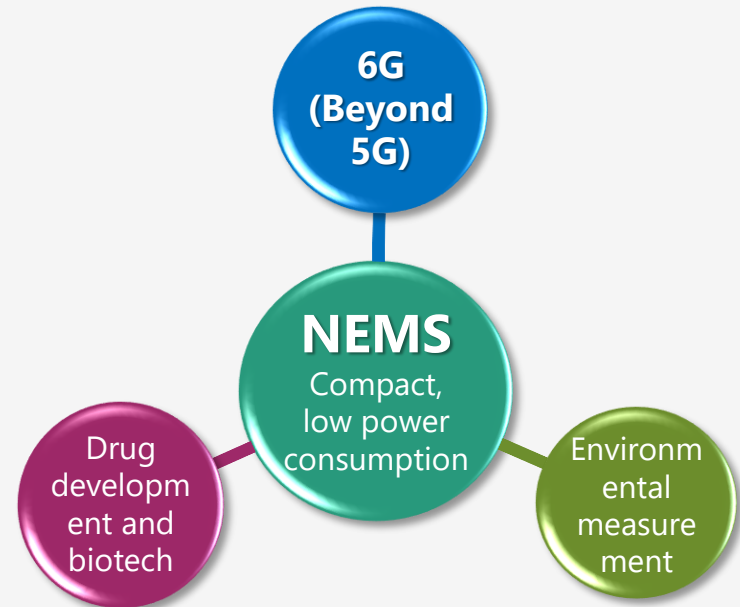
## 6G(Beyond 5G)

- 100+ GHz component development
- Radio interference monitoring technology



## Next-generation technology acquisition

- Realization of "NEMS\*", which have high potential for use in ultra-sensitive sensors



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



## **V. Financial Results for the 2nd 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 Sep.)	FY2020 (Apr. to Sep.)	YoY	YoY (%)
Order Intake	53.6	54.0	0.4	1%
Revenue	49.8	52.2	2.4	5%
Operating profit (loss)	6.6	9.8	3.2	48%
Profit (loss) before tax	6.4	9.7	3.3	53%
Profit (loss)	4.7	7.1	2.4	51%
Comprehensive income	3.4	7.1	3.7	111%

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



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

 T&M: Revenue and profit increased thanks to 5G commercialization and steady demand for data centers

PQA: Profit increased while revenue decreased due to the impact of COVID-19

Unit: Billion Yen

		FY2019 (Apr. to Sep.)	FY2020 (Apr. to Sep.)	YoY	YoY (%)
T&M	Revenue	35.2	37.5	2.3	7%
	Op. profit (loss)	5.9	9.0	3.1	52%
PQA	Revenue	10.7	10.4	(0.3)	-3%
	Op. profit (loss)	0.5	0.7	0.2	53%
Others	Revenue	3.9	4.3	0.4	8%
	Op. profit (loss)	0.7	0.5	(0.2)	-21%
Adjustment	Op. profit (loss)	(0.4)	(0.4)	0.0	-
Total	Revenue	49.8	52.2	2.4	5%
	Op. profit (loss)	6.6	9.8	3.2	48%

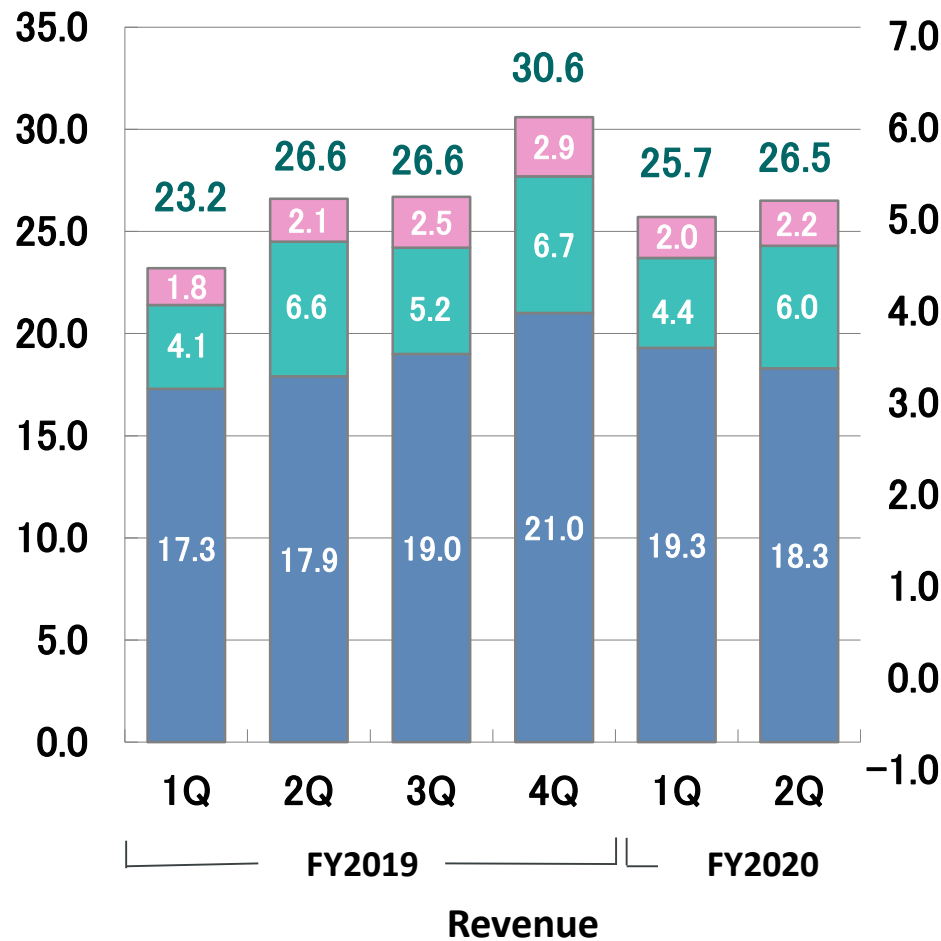
Note1 : Numbers are rounded off to the first decimal place in each column. T&M: Test & Measurement PQA : Products Quality Assurance  
 Note2 : Adjustment includes elimination of inter-segment transactions and non distributed company-wide expenses of each business segment.



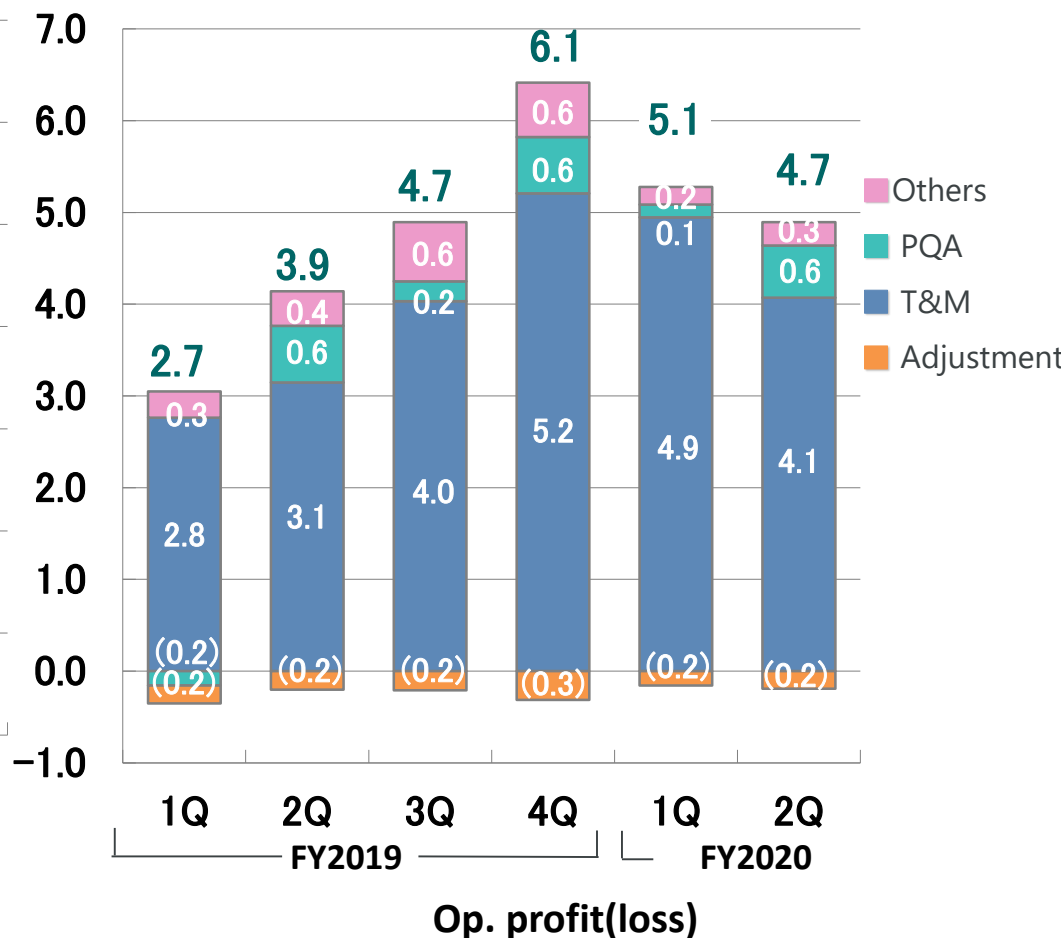
# V-3. Consolidated performance - Revenue and Op. profit by quarters -

➡ 2Q(Jul.-Sep.) Operating margin : Consolidated 18%, T&M 22 % ,PQA 10%

Bn. Yen





Bn. Yen



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 September)	
 <b>T&amp;M:</b> Steady progress for both 5G commercialization schedule and development of high-speed data centers	
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
 <b>PQA:</b> In the food market, uncertainty about the future due to the spread of the COVID-19 caused some customers to take a cautious approach to capital expenditures.	

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

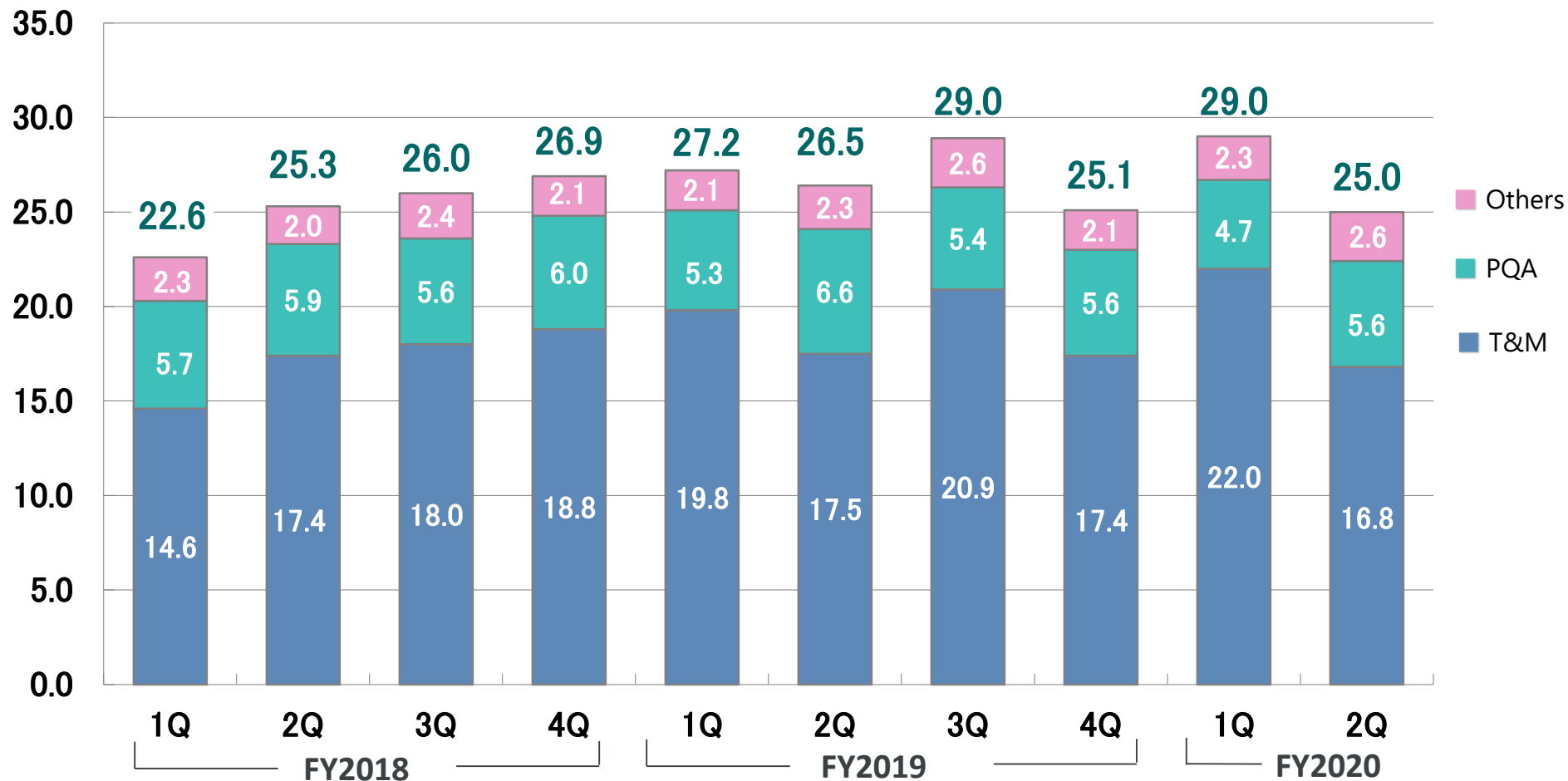


# V -5. Transition of Order Intake

➡ T&M : 4% decrease year on year

PQA : 15% decrease year on year

Bn. Yen



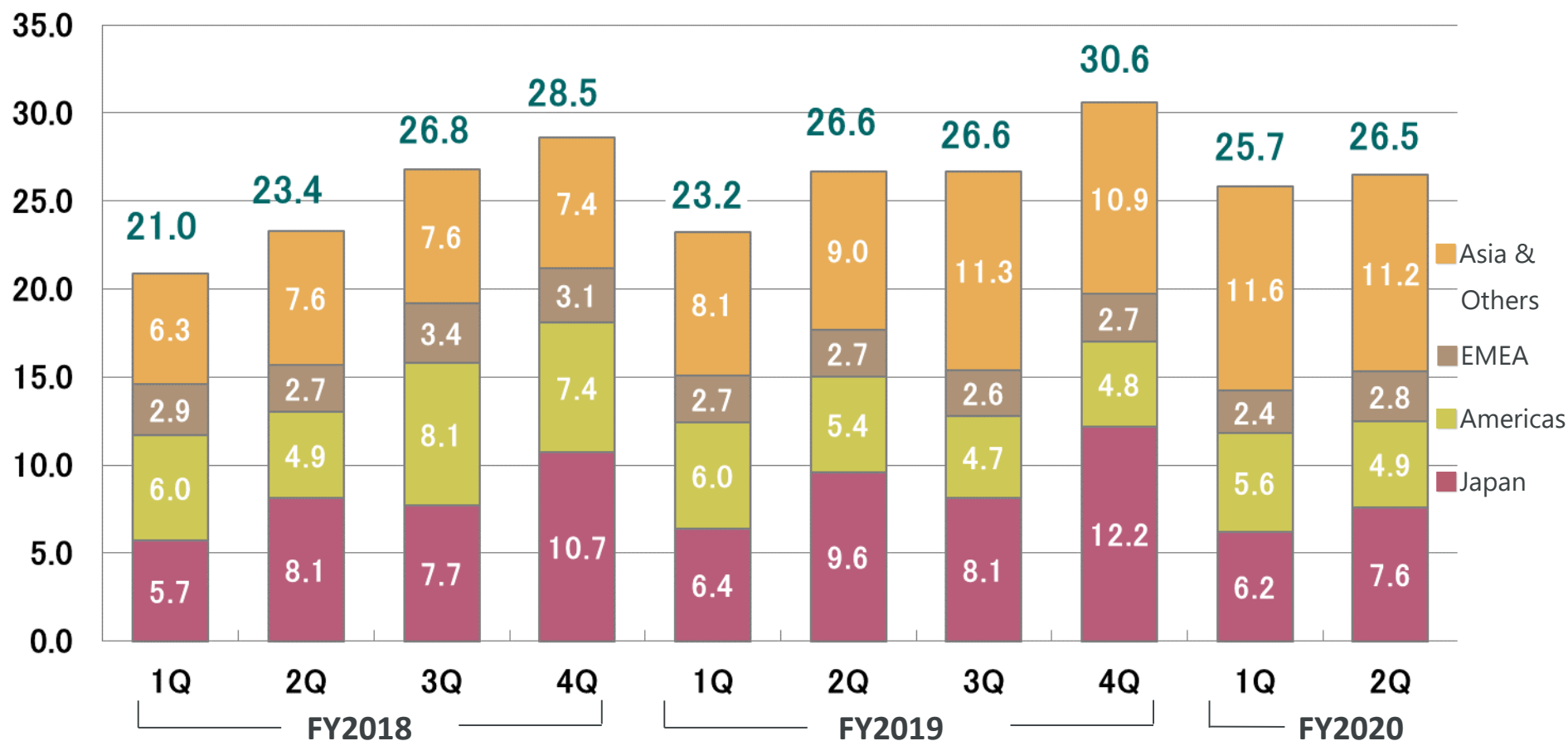
Note : Numbers are rounded off to the first decimal place in each column.



# V -6. Transition of Revenue by Region

➡ 5G commercialization and steady demand for data centers in Asia

Bn. Yen



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



# V-7. Cash Flow

 **Operating cash flow margin ratio was 25.6%**

## FY2020 2Q

Operating CF : 13.4 Bn. Yen

Investing CF : (2.5) Bn. Yen

Financing CF : (11.2) Bn. Yen

## Free Cash Flow

Op. CF + Inv. CF : 10.8 Bn. Yen

## Cash at the end of period

47.2 Bn. Yen

## Interest-bearing debt

6.6 Bn. Yen

## Details

Unit : Billion Yen

Others 2.2*		
Accounts receivable 4.9		
	Depreciation and amortization 2.5	
Profit(loss) before tax 9.7		
Inventory (1.7)	Capex (1.4)	Redemption of corporate bonds (8.0)
Tax (3.0)	Others (1.1)	
Accounts payable (1.2)		Dividend (2.7)
		Others (0.5)

\* Other main items: Advances received, etc.

**Op. CF 13.4**

**Inv. CF (2.5)**

**Fin. CF (11.2)**

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



# V -8. Forecast for full year of FY2020 (Consolidated)

 No Change since April 27<sup>th</sup> disclosure

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%
T&M	Revenue	75.2	77.0	1.8	2%
	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)	-

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

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





Anritsu  
envision : ensure

The image features the Anritsu logo in white on a teal background. The logo consists of the word "Anritsu" in a bold, sans-serif font, with a stylized diagonal line through the "A". Below it, the tagline "envision : ensure" is written in a smaller, lowercase sans-serif font. The background is a solid teal color with a white border on the left and bottom edges.