

Test and Measurement Business

Contributing to the advancement and enhancement of social infrastructure with high-speed communications networks leveraging cutting-edge 5G technology

Accelerating Initiatives for the New Society that 5G Will Support

With the launch of 5G, we are at a point where anyone can receive high-level services regardless of where one lives as high-speed and high-capacity wireless communication is now available. As the importance of the Internet has been reaffirmed in the COVID-19 pandemic, 5G is expected to undergo further developments as infrastructure supporting new ways of living.

Anritsu's Test and Measurement Business provides the global market with test and measurement systems that are crucial for establishing and expanding the use of sophisticated communications technology. As a partner to our customers, we will contribute to the development of information and communications technologies, such as 5G, and create test solutions to solve problems in new applications and use cases for communications technology. As we do so, we will accelerate initiatives for addressing the needs of a communication-oriented society.

Business Areas

Since Anritsu was founded, and over our long history, we have contributed to the evolution of communications technology through innovations that have paved the way for the future of information and communications and by providing society with original and high level products. The Test and Measurement Business delivers test instruments and test systems to customers worldwide. These instruments and systems are essential for the quality assurance of communications equipment and facilities that are the core elements of communication network infrastructure.

- Providing test solutions for all phases in the mobile communications market, as represented by smartphones, including chipset development, device development, conformance testing and manufacturing inspections.
- Providing test instruments for development and manufacturing inspections to evaluate and assure the connectivity of communication modules installed in IoT devices such as vehicles, home appliances, and industrial equipment.
- Providing test instruments for performance evaluations and manufacturing inspections of network devices that deliver high-definition videos and images from data centers at high speeds over the Internet.
- Providing a wide range of wired and wireless test instruments for manufacturing, construction, and maintenance of various types of communication equipment and devices, including the base stations that make up mobile networks.

Takeshi Shima

Director,
Senior Vice President,
Test and Measurement
Company President



- Providing monitoring solutions that contribute to the improvement of network operations, including network failure analysis and capacity expansion, by visualizing the network operational status of telecommunications carriers.

Market Environment and Business Opportunities

In 2019, 5G services were first launched in the U.S. and South Korea, and now there are 213 commercial 5G networks of varying sizes provided in 85 countries. Last year, the number of subscribers was 220-230 million worldwide (led by China), and in one year this figure increased to 660 million (as of February 28, 2022, according to "Ericsson Mobility Report Q 4 Update February 2022" and "GSA May Edition"). The importance of communications services has risen further as the human race has been confronted with the global turmoil of COVID-19. Face-to-face interaction had been the norm for many types of sales and service activities that have now switched to online formats and there is demand for further development of 5G, as the infrastructure supports this new way of living. The range of fields utilizing 5G is showing breadth, and new services that are not public networks are beginning to emerge, such as local and private 5G. In addition to these services, remote control of devices and vehicles is also expected to expand the world of 5G utilization. With the advent of the metaverse, the realization of such social activities being carried out remotely (i.e., in a nonface-to-face economy) has become a reality. Going forward, it is predicted that there

will be test and measurement needs to establish a quality assurance mechanism to ensure high speed and low latency network connectivity for using state-of-the-art devices to deliver high-definition video and image information.

Growth Strategy

FY2021 Results

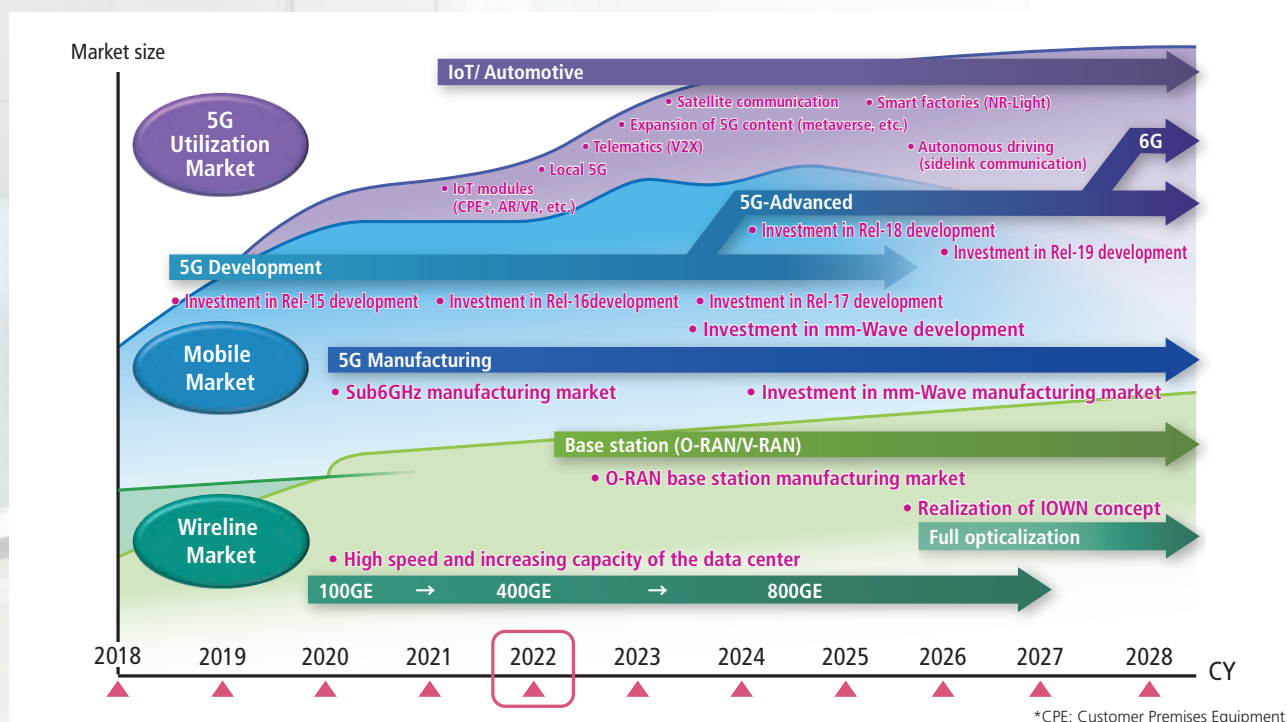
With revenue of ¥73.3 billion and an operating profit margin of 21%, we were not able to meet our initial targets for fiscal year 2021, the first year of GLP2023. In addition to delays in the commencement of C-band network installation in the U.S., the lockdown that began in China in late March and difficulties in procuring parts and materials, particularly semiconductors, had a major impact.

Even under such environment, being able to continue and extend collaboration with global customers pursuing development of cutting-edge technologies was a major success for us to accelerate efforts toward fiscal year 2023 and beyond. As in fiscal year 2020, COVID-19 restricted some of our activities, but our development plans progressed almost equivalent to the schedule as when there was no COVID-19 influence. In addition to the launch of a test system for base stations using the MT8000A (radio communication test station) platform, the latest functions were added to existing 5G and 400 GE solutions to meet customers' cutting-edge needs.

Basic Policy for GLP2023

The GLP2023 targets considerable growth, with revenue of ¥100 billion and an operating profit margin of 23%.

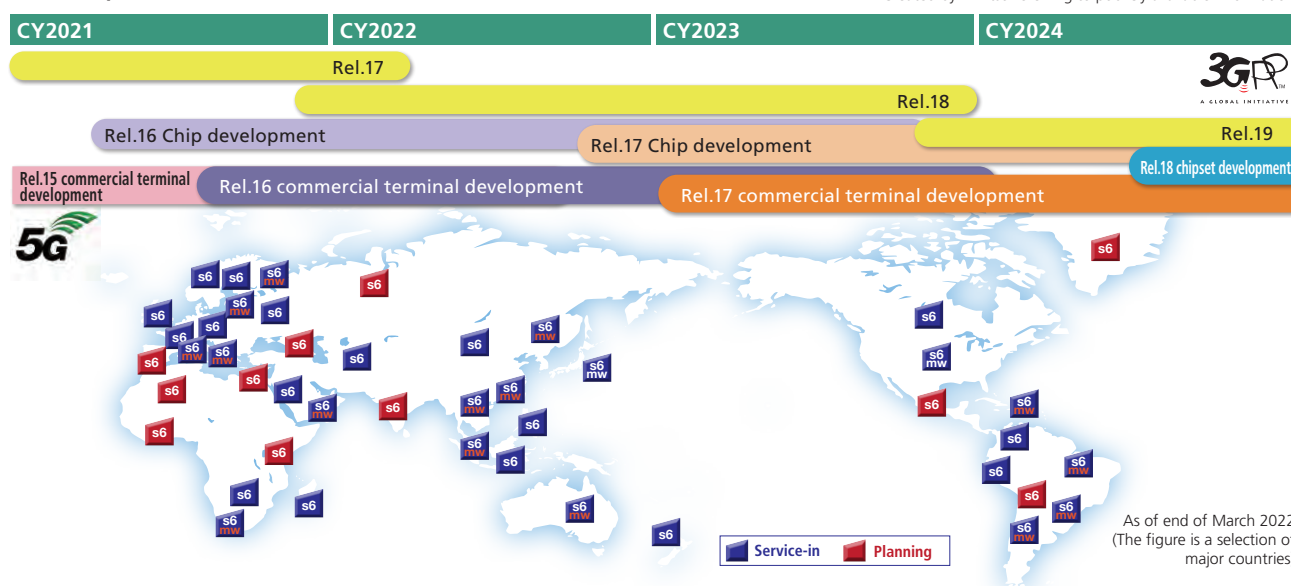
Test & Measurement Business: Mobile market trends and Business opportunity



Test and Measurement Business

|| Roadmap of 5G

* Created by Anritsu referring to publicly available information



Under our vision to become a “leading company supporting a communications society built on 5G” we accelerate our initiatives toward the peak of 5G smartphone-related business in 2023, and we also aim to expand our business in fields further developing 5G or derived from 5G. Adhering to the following three policies, we will continue to create solutions that contribute to a broad range of customers pursuing business leveraging communications technology. Therefore, we are placing priority on “co-creation” initiatives as well as collaborating and growing together with customers in each industry as we pursue those activities.

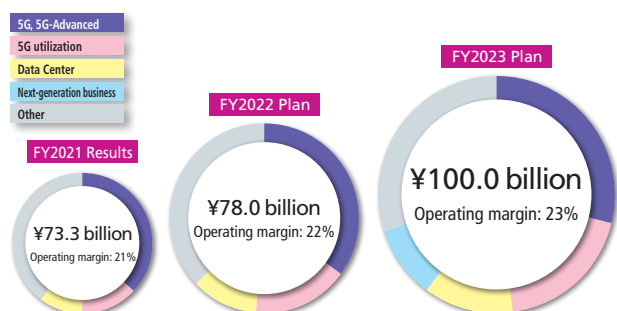
1. Increase the ratio of 5G utilization and solutions for the network infrastructure market within our business portfolio
2. Transform our business solutions from simple provision of “measurement” tools to provision of value by “resolving through measurement”
3. Increase investment in growth areas (5G-Advanced, self-driving vehicles, O-RAN/IOWN).

Of the three basic policies, we are particularly emphasizing the transformation of our business solutions to provide value by “resolving through measurement,” which we recognize as a formidable challenge. As the scope of 5G utilization broadens, there has been an increase in customers who are not skilled in communications technologies unlike traditional chipset or smartphone manufacturers. These customers are working on identifying what kind of business to develop using communication technologies, not on the communications technology itself. We must think of how the results from testing can be used to serve the businesses of these customers, and then convert them into new values. Through collaboration and co-creation, we are working with customers and partner companies involved in IoT, automotive, O-RAN, and local/private 5G in order to generate these values. We are adding the findings and the new knowledge gained from this process to Anritsu's advantages, advanced and accurate test and measurement technologies, to expand the range of communications services and contribute to building a more sophisticated social infrastructure.

|| Test & Measurement Business: GLP2023 revenue and operating profit ratio plan

FY2022 Initiatives

- Capture 5G demand in Europe and U.S. markets
- Develop customers in the 5G IoT/automotive markets in Asia and North America
- Secure a foothold in next-gen businesses like O-RAN, 6G etc.



Human Resource Hiring and Training

With an untiring commitment to Anritsu's concept of “Original & High Level,” we are striving to hire and train talented personnel who align with this commitment and come from a broad, global pool that spans solutions development, manufacturing, and sales. We have our development bases in the U.S., the U.K., as well as in Asia region. We are engaged in software-centered development in several countries. With regard to engineers, we are conducting thorough training in Japan (the home base for our development), and then assigning them to the development teams in other countries. Thus, under a consistent mindset based on company policies they pursue development effort taking into account the particular cultures and environments of

each country. With regard to manufacturing and sales as well, we are striving to strengthen governance as a global company while simultaneously engaging in personnel development through global trainings, meetings, and human resource exchange programs. The number of female employees working in development and marketing has increased and, going forward, we will further build out programs for advancing the careers of all employees.

Accumulating Intellectual Capital and Participating in External Organizations

In addition to acquiring patent rights for technology emerging from our development, we are also dedicating effort to attaining new technology by joining various external organizations.

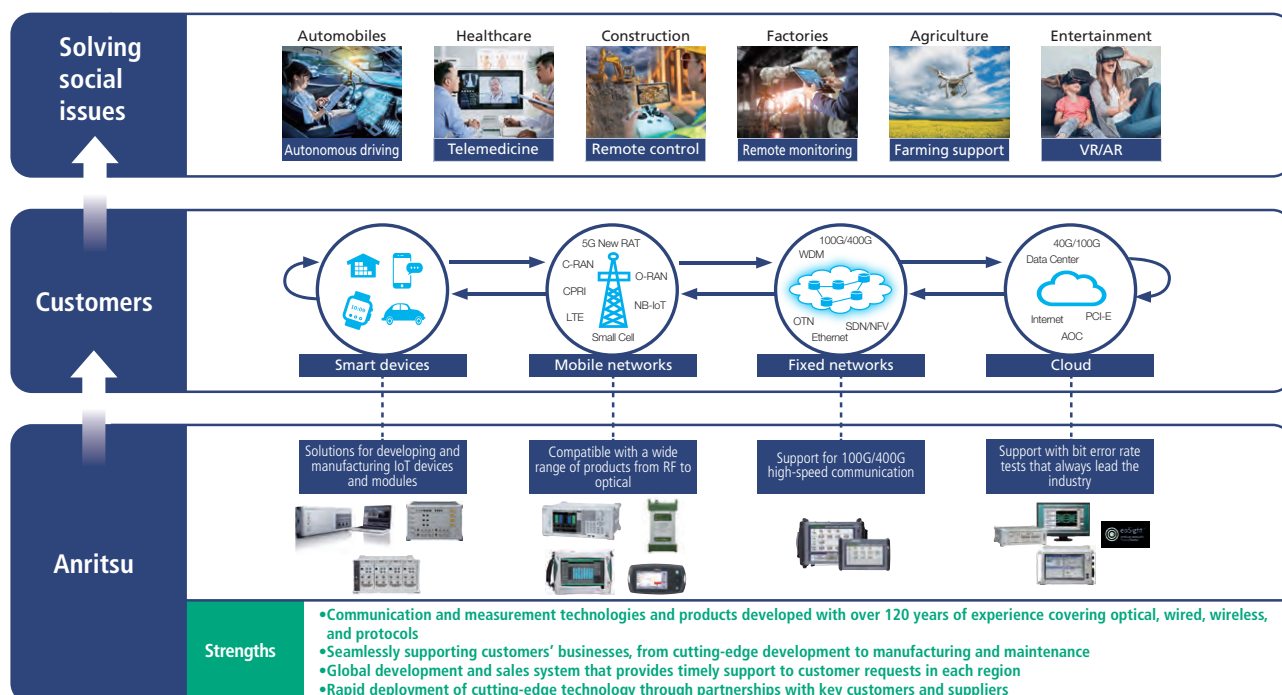
Currently, we are members of the Third Generation Partnership Project (3GPP) for determining mobile communication standards, and some of our other affiliations include the following groups (for details on activities, please see the section of our website listing affiliations).

1. The Next Generation Mobile Networks Alliance (NGMN Alliance) for deliberating on the status of next-generation mobile communications
2. The Wi-Fi & Ethernet Standards Group, organized under the Institute of Electrical and Electronics Engineers (IEEE)
3. The Open Radio Access Network Alliance (O-RAN Alliance) for intelligent 5G communication networks and for devising open interface specifications
4. The Innovative Optical and Wireless Network (IOWN). A global forum for reviewing new communications platforms comprised of fully optical networks, and edge and wireless distributed computing

SDGs Undertaken by a Test and Measurement Company

For realization of social activities in the metaverse and automated driving services which have recently garnered much attention there will be many technological innovations required. By manufacturing and delivering value-added original and high level products for these fields, Anritsu is in agreement with Goal 9 of the SDGs “Build infrastructure, promote industrialization, and foster innovation”. We will also grow our contribution to Goal 11 “Sustainable cities and communities” by expanding our business in 5G, including utilization via the IoT. In recent years, natural disasters, epidemics, aging populations, and other social issues that require solutions have been increasing. Advancement of communications networks like 5G have now been recognized as the tools for solving these issues. With such characteristics as high-speed, large-capacity, ultra-low latency, and massive simultaneous connections, 5G will be utilized in industries such as healthcare, agriculture, automotive, and disaster prevention so that it is expected to become a communications infrastructure that solves various social issues such as information disparity, traffic accident prevention, and labor shortages.

Anritsu’s test and measurement technology supports the advancement and quality improvement of communications, thereby contributing to creating a more comfortable and convenient society. We will take part in Anritsu Group’s effort of contributing to the “realization of social sustainability” by maximally utilizing not only 5G but also other technologies we own.



PQA Business

Accelerating Innovation and Structural Reform to Become a First-to-Call Company for Quality Assurance

The mission of food and pharmaceutical companies is to provide a stable supply of safe and reliable products at all times, even during the prolonged COVID-19 pandemic. Due to the urgent need to realize a society in balance with the natural environment, that produces and consumes only what is necessary without waste, food and pharmaceutical companies are vigorously working to conserve energy and reduce waste loss through improvements in quality and productivity.

Anritsu's PQA business has enhanced its system to promptly provide products and services that match customer needs by directly listening to the voices of customers around the world. We will continue to accelerate innovation and structural reform to transform into a global company and contribute to the realization of a sustainable society where people around the world can enjoy safety and security.

Business Areas

The PQA Business provides development, production, sales, and maintenance services of quality inspection machines and quality control systems for the food and pharmaceuticals industries globally.

Under the Company vision, "Beyond testing, beyond limits for a sustainable future together," we aim to "become our customers' most trusted 'First-to-Call' company for quality assurance with a view to achieving a sustainable future." We will bring our quality inspection technologies that play an active part in production lines, an area of Anritsu's strength, combined with advanced technologies and innovative services that include AI and IoT in order to work to build solutions to comprehensively support our customers' quality assurance activities.

Furthermore, leveraging the technologies and know-how of "quality assurance" acquired in the food production field into the pharmaceutical field, we will make the pharmaceuticals market the second pillar for the PQA Business.

Market Environment

In fiscal year 2021, some customers in the food and pharmaceutical markets were cautious about capital investment due to increased uncertainty about the future caused by repeated stagnation in economic activity.

The Japanese market experienced brakes on consumption, which had been on the road to recovery, whenever there was another outbreak of COVID-19. With labor shortages and rising production costs becoming more severe in food manufacturing, stabilizing production and improving efficiency have become top priorities.

Masumi Niimi

Director
Senior Vice President
PQA Business Group President



In Europe and the U.S., where most countries have switched to a “living with COVID-19” strategy, economic activities have begun to normalize, and major food companies have begun to actively invest in plants and equipment. On the other hand, the rapid re-starting of the economy has caused some issues such as labor shortages and sharply rising labor costs, as well as a hike in prices for energy and raw materials for food products.

In the Chinese market, stable demand continued, especially in the frozen food and meat markets. The Shanghai lockdown at the end of March caused a short-term stagnation of business activities and had a significant impact on the lives of citizens, but we expect the situation to return to normal in the second half of this year and beyond. The food market is also recovering in other Asian markets such as ASEAN countries and India, especially in the areas of souvenir confectionery and food service, due to a recovery in tourism demand.

Thus, although the situation varies by region and market, on the whole, capital investment in quality inspection equipment is expected to recover to pre-pandemic levels in fiscal year 2022.

Opportunities for Business Growth

In the food market, in addition to the perennial issues of quality improvement, productivity enhancement, and stabilized supply, initiatives for realizing a sustainable society such as reduction of food loss and eliminating plastic waste are now required.

In fiscal year 2022, we expect the capital investment for the food companies will focus on resolving issues such as

promoting safety and security through further quality improvement, recovering profitability that has deteriorated due to a hike in production costs, and resolving labor shortages by introducing automation and reducing manpower in the production lines.

In the quality inspection process, which requires complex operation and advanced judgment, many inspections still rely on the human eye and senses. With technological innovation that enables these to be substituted and automated, we will generate demand for new inspection equipment.

Pharmaceuticals are just as large a market for production line quality assurance as the food market. For quality assurance of pharmaceutical products, specialized testing equipment that can inspect target products such as pills, capsules, and injectables with high precision is indispensable.

In recent years, data integrity, which requires the completeness, consistency, and accuracy of all data related to manufacturing, has been a growing concern, and efforts to comply with FDA* guidelines and GMP* ordinances, including full inspection, process control, and electronic recording of quality data, are accelerating.

For more than half a century, Anritsu has provided customers in pharmaceutical production with checkweighers and other testing equipment and we have extensive experience in Japan. We are working to expand our business into pharmaceutical markets around the world, such as the U.S., Europe, China, and India.

*1 FDA: U.S. Food and Drug Administration

*2 GMP: Good Manufacturing Practice



Facing New Challenges in Quality Assurance Together With Our Customers

PQA

First Year of GLP2023 Review and Initiatives in this fiscal year

FY2021 Initiatives and Results

In fiscal year 2021, when lockdowns and other restrictions on activities were enforced around the world, we worked on sales promotion responding to the situation at the time while placing the safety of our customers and our employees as our top priority. In regions where it was difficult to visit customers, we focused on remote sales promotion through activities such as online exhibitions, webinars, and e-mail newsletters.

On the other hand, in regions where we could meet with customers, such as China and North America, we conducted more aggressive promotions by participating in exhibitions and bringing actual equipment to customer sites for demonstrations.

As a result, orders achieved the initial target of ¥23 billion for the fiscal year, driven by overseas markets such as North America and the Asian region. On the other hand, sales did not reach the target set for the first year of GLP2023, partly due to the prolonged delivery times in the Japanese market.

Development Investments and New Products

In GLP2023, our policy is to create customer value by acquiring new sensing technologies and increase the ratio of investment in strategic products for the pharmaceutical market. We are continuously investing in development while considering our strategy and product portfolio.

In fiscal year 2021, we enhanced our solutions for strategic markets by developing and launching the "XR75HR Dual Energy X-ray Inspection System," which uses a new high-definition X-ray sensor to enable high-sensitivity inspection of thick products with irregular surfaces that have been difficult to inspect in the past, and the "IP69 X-ray Inspection System," made with a robust body that can withstand jet washing, with the European and U.S. meat markets in mind, and releasing the "KWS9002AP Capsule Checkweigher", which can weigh at an ultra-fast



speed of maximum 230,000 pills per hour, for the pharmaceutical market.

Initiatives to Achieve an Operating Margin of 10% in FY2023

We are working to improve the operating margin in two ways. One is to increase the added value through applying customer values on solutions, as well as business expansion in the pharmaceutical market. The other is by globally optimizing our business structure and streamlining business processes.

In fiscal year 2021, we expanded our product lineup to best meet customer needs, such as with the aforementioned new products. In addition, as part of the global optimization of our business structure and streamlining of business processes, we expanded the assembly and inspection systems of our local subsidiary in Chicago, U.S.A., to improve our ability to promptly provide our customers with the most suitable unit.

However, the effect on profit margin improvement was limited due to increasing prices of semiconductors, other components, and logistics costs, as well as the influence of the product mix.

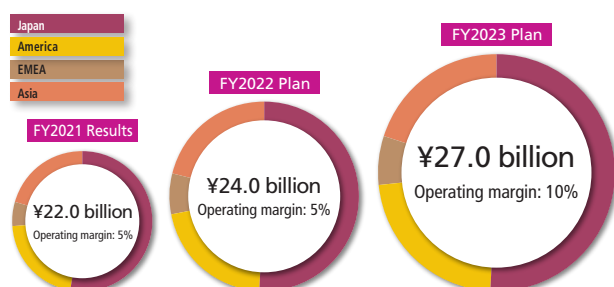
We will continue to leverage the Group's management resources to speed up innovation and value creation, and accelerate business restructuring to build a structure that consistently generates an operating margin of 10% or more.

|| PQA: GLP2023 Revenue and Operating Profit ratio Plan

FY2022 Initiatives

Capture new demand and improve profits through IT

- Respond to automation and labor-saving needs
- Expand market by strengthening sales capabilities in Europe and the U.S. and enhance local SE response capabilities
- Develop new products for the pharmaceutical market to improve profit margins



Talent Recruitment and Development

We are aggressively recruiting engineers for cutting-edge technologies focusing in such areas as image and signal processing, IoT, deep learning and other aspects of AI, as well as non-destructive sensing. We encourage the growth of people and technology by interacting extensively with research institutions outside of the Company, not insisting on in-house development. In addition, in order to listen to the needs of our customers around the world and provide optimal solutions, we are working to recruit and train human resources who can work globally.

Intellectual Capital

Relationships with Outside Organizations and Collaboration with Leading Companies

As PQA business, we are a member of more than 20 industry associations, including Japan Measuring Instruments Federation, Japan Inspection Instruments Manufacturers' Association, and Japan Packaging Machinery Manufacturers Association, as well as PMMI (Packaging Machinery Manufacturers Institute) in the U.S. We work with customers, leading companies in the food packaging industry, and many research institutions to overcome quality assurance challenges.

Competition and Market Share

More than 40 competitors operate in the Americas, Europe, and China in target markets for the PQA business.

Anritsu has gained a leading share of the Japanese domestic food market and is expanding its share in overseas markets and the pharmaceutical market. By leveraging our strengths in high-speed, high-sensitivity sensing tech-

nology and high-quality services, we aim to further expand our business and increase our market share to become a "First-to-Call Company" by delivering products sought by customers faster than anyone else.

Social Issues Solved Through Our Business

SDGs Initiatives

PQA Business contributes to SDG Goal 12 "Ensure sustainable consumption and production patterns" through quality assurance of food and pharmaceutical products by working together with our customers who install our quality inspection equipment.

In addition to the inherent social values of the PQA business, such as "stable supply of safe and reliable food and pharmaceutical products" and "reduction of food loss through quality improvement," we will contribute to the realization of a sustainable society with the initiatives such as reduction of the energy required for transportation and use of products as well as opting for environmentally friendly materials.

Solving social issues



Increasing the sophistication of quality assurance for food and pharmaceuticals to achieve:

- A safe and secure society
- A sustainable society with little food loss



Customers



Anritsu



Automatic electronic weighing machines



X-ray inspection systems



Metal detectors



Checkweighers



Quality management/control systems

Strengths

- High-speed, high-precision, quality inspection technology for production lines
- Engineering capability to adapt inspection equipment to various food manufacturing environments
- Extensive maintenance service system and experienced maintenance engineers in Japan
- Past record and top-class market position in the food inspection market in Japan

Environmental Measurement Business

Creating new value that contributes to solving social issues through cooperation with customers and partners



Executive Officer
Environmental
Measurement Company
President

Tsutomu Tokuke



Business Areas

The Environmental Measurement Business supports the resolution of social issues in the following three areas.

- (1) Strengthening the resilience of social infrastructure: providing equipment and systems that support facility monitoring, video surveillance, and network stabilization in markets such as roads, rivers, telecommunications, water supply, electric power, and financial services.
- (2) Improving industrial productivity through digitization: providing products and services that contribute to automation and productivity improvement in manufacturing and maintenance operations, including support for the introduction and operation of local 5G and various industrial measuring instruments.
- (3) Promoting carbon neutrality: Through Takasago, Ltd., which became a subsidiary in January 2022, as the core business, we provide test systems leveraged by energy control technologies required for evaluation of the performance and reliability of electric vehicles and batteries.

Market Environment and Business Opportunities

Labor shortages, more frequent and more severe natural disasters due to climate change, and aging facilities have become major issues impacting the social infrastructure that supports people's daily lives. Anritsu will continue to provide solutions that improve the efficiency of infrastructure maintenance management by leveraging IoT technologies as well as solutions that contribute to disaster prevention and mitigation.

In addition, efforts to promote digital transformation to improve productivity have been launched in all industrial sectors, and local 5G is increasingly being looked towards as a communications infrastructure for IoT and AI utilization. To meet these expectations, we will expand our local 5G installation and operation support services and propose process

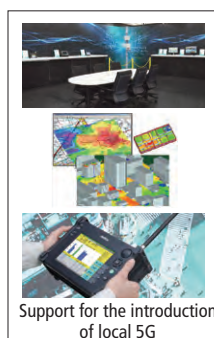
digitization and data utilization with various industrial measuring instruments.

Furthermore, there is a noticeable trend among automobile makers in many countries to accelerate the shift to electric vehicles toward the realization of a carbon-neutral society. In addition, development toward electrification of construction machinery, agricultural machinery, ships, and motorcycles is gaining momentum. Anritsu is expanding its solutions to meet the demand for more efficient testing of the main components of the driving system in electric vehicles, such as batteries, inverters, and motors.

SDGs Undertaken by the Environmental Measurement Business

The Environmental Measurement Business aims to contribute to the realization of sustainable industry and society by leveraging the technologies and expertise we have cultivated in the fields of information, communication and measurement, and by promoting cooperation with our customers and partners. By supporting the introduction and utilization of local 5G, we will contribute to SDG Goal 9, "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation". We will also need to build a carbon-neutral society with widespread use of electric vehicles in order to solve the issue of climate change. The test equipment provided by the Environmental Measurement Business supports research and development of electric vehicles with higher performance and energy efficiency and we contribute to SDG Goal 7, "Ensure access to affordable, reliable, sustainable and modern energy for all". Furthermore, we will continue to support safe, secure, and comfortable urban development through the provision of information and communication solutions required for the advancement of social infrastructure maintenance and management. This initiative contributes to SDG Goal 11, "Make cities and human settlements inclusive, safe, resilient and sustainable".

Examples of Environmental Measurement Business' Solutions



Sensing & Devices Business

Supplying devices that form the core of various industrial products worldwide, making people's lives more convenient and creating a safe, secure, and comfortable society



Business Areas

The Sensing & Devices (S&D) Company is developing business in the optical communications market while also pioneering the sensing market in order to expand its business.

In the optical communications market, we supply semiconductor lasers for excitation used in optical fiber amplifiers (OFAs) that amplify optical signals as it is, and semiconductor optical amplifiers (SOAs) used in optical transceivers to counter attenuation in the communication signals. In the sensing market, we see business opportunities in the changing social environment, and in the past few years we have been strengthening our efforts in the ophthalmic medical device market, which is expanding due to the aging population. For example, in order to treat cataracts it may be necessary to replace the turbid crystalline lens with an artificial lens. Our retinal scanner devices can adequately measure the eye axial length to determine the required lens power. They can also be used for retina cross section measurement for the early detection of age-related macular degeneration and glaucoma. We also supply light sources for other devices, such as devices for gas leak detection. In addition, as the Device Division, which assumes the core competence of Anritsu Group, we supply critical devices for Anritsu's in-house telecommunications measuring instruments.

Market Environment and Business Opportunities

One of Anritsu's composite semiconductor devices based on indium phosphide (InP) is expected to increase in market

Executive Officer
Sensing & Devices Company
President

Yasunobu Hashimoto



value due to their high-speed and high-frequency characteristics in the new millimeter wave area, which is expected to be utilized in the coming all-optical network era and 6G.

For optical fiber amplifiers, which are expected to broaden their wavelength multiplexing bandwidth, we are working to increase the output power of pumping lasers and to increase available wavelength. And for semiconductor optical amplifier devices, we are working on longer distances, smaller sizes, and lower power consumption of optical transceivers. Such semiconductor optical amplifiers are also expected to be in demand in the industrial LiDAR and fiber optic sensing fields, where high power lasers are needed for long distance applications. We will grow our S&D business by acquiring opportunities for these new optical sensing businesses and by aggressively developing our proven business of light sources for ophthalmic medical equipment.

SDGs Undertaken by the S&D Business

The S&D business contributes to SDG Goal 9, "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation," and SDG Goal 11, "Make cities and human settlements inclusive, safe, resilient and sustainable," by supplying critical devices to customers around the world for various industrial products, such as the construction of stable communication environments, medical devices for an aging society, and gas leak detection devices.

Communication

Products such as pump lasers and semiconductor optical amplifiers (SOA) used in optical fiber amplifiers and optical transceivers are supporting communication networks.

