

# **Becoming a World-Class Quality Assurance Partner**

 Becoming the First Company to Call in the Global Market -

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Our PQA Business has ensured a stable revenue base by capturing an industry-leading position in the domestic food market. In the overseas food market, we have continued to grow significantly above the market average, with a strong reputation for X-ray inspection solutions as our strength.

In our Mid-Term Business Plan GLP2020, we are working to build a foundation for expanding our business globally, while increasing the value of the quality assurance solutions that are our focus.

To respond to a variety of requests in diverse food cultures, and provide solutions and amenable services that exceed our customers' expectations, we will invest for the establishment of a supply chain that is optimized for global business.

By fully considering issues related to quality assurance and working to overcome them, we will grow into a quality assurance partner who will be the first one for customers to call.

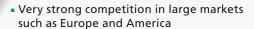
#### **SWOT Analysis**

We expect our PQA Business, which has strengths in quality inspection technology for production lines and its ability to adapt to various food manufacturing environments, to expand further due to growing global quality assurance needs for foods and

pharmaceuticals. On the other hand, establishing a sales and maintenance network in overseas markets, and filling out a product lineup that matches the requirements and characteristics of the European and American markets remain as issues.

- High-speed, high-precision, quality inspection technology for production lines
- Engineering capability for adapting 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
- Growing global demand for a stabilized supply of safe and secure food
- Increasing brand risks to food companies due to quality incidents
- Increased consumption of processed foods due to advances in processing/packaging technologies
- Rapid development of innovative technologies such as AI and IoT
- Expansion into the pharmaceutical manufacturing industry, which demands higher quality assurance
- Increased demand for automation and labor saving on production lines due to labor shortages

- Increasing market recognition in large markets such as Europe and America
- Filling out a product lineup that matches the requirements of the European and American markets
- Sales and maintenance network in overseas markets



**Business Review** 

# **Example production line** other objects are in packages shaped like pillows, this is called a "pillow package" and is in wide use. Combine things with a range of weights and allocate within a specified range (Combining weight mea-surement)

lesigned to determine whether the items have been weighed properly and are contaminant inspection stage, verification of whether there are metal or pla contents is conducted and X-ray inspection equipment can detect cracks and defects in such products as cookies. In addition, the production management software "QUICCA" may collaborate in the inspection

### **Business Areas**

The PQA Business develops, manufactures, sells, and maintains quality inspection systems for production lines. Approximately 80% of revenue in this business are in the food industry.

Many processed foods sold at stores such as supermarkets and convenience stores are produced in food factories at a very high speed of hundreds of products per minute on a belt conveyor. Our PQA Business products contribute to improvements in productivity and quality, by automating quality inspections that have conventionally been performed by humans on production lines.

At Anritsu, we tackle the endless issues of quality assurance head on, proposing optimal quality inspection methods to individual customers, managing and utilizing quality data, and providing full maintenance services, among other measures. By doing so, we find solutions that offer total support to the quality assurance activities of our customers.

# Market Environment and **Business Opportunities**

The food processing industry, which is the main customer of our PQA Business, has over 100,000 business sites worldwide. Quality assurance needs, such as weight checking and contaminant inspections, in the food industry are continuing to spread from developed countries to emerging countries, and from major corporations that are global businesses to the industry as a whole.

In the Japanese market, labor shortages are becoming more severe due to a falling birthrate, an aging population, the concentration of population into urban areas, mismatches between labor supply and demand, and other reasons. As a result, there is an increasing need for automation and labor saving on production lines.

Since the 1960s, when supermarkets started to carry a large range of processed foods, we have created a history of "co-creation and development" in the food industry, and earned the trust of many food companies as their quality assurance partner.

In North America, whose food culture is characterized by bread and meat, X-ray inspection has penetrated the market and demand is growing, mainly for the detection of bones left in meat, and inspection of confectionery and cooked foods.

In Europe, whose food processing and packaging industry has the longest history, the quality inspection market has matured, and the standardization of quality control criteria is progressing. Europe has become the most advanced market for food safety and security where many international standards for the quality control of processed foods such as ISO 22000 are organized.

In China and the ASEAN countries, where remarkable economic growth continues, the need for safe food is increasing with the expanded distribution of prepackaged foods. Demand for quality inspections is expected to increase, primarily for high-income consumers.

# **PQA Business**

#### **EMEA** More stringent quality assurance Increased demand for for the retail industry X-ray inspection market Americas **EMEA** 28% 43% 2018 2020 2018 Japan Japan Expansion of Automation and labor Global market size of demand for processed food, saving on production lines 220 billion ven rising personnel expenses due to labor shortages (estimated by Anritsu) Average growth rate of 4% expected by 2020 2018 2020 2018 2020

#### **Current Status of the PQA Market and Outlook**

## **Growth Strategy**

#### ■ GLP2020 Basic Policy

In GLP2020, Anritsu positions the three years of the plan up until 2020 as an important period of preparation to transform into "a world-class quality assurance solution partner" who will be the first one for customers to call.

#### Initiatives Toward GLP2020

To achieve consolidated revenue of 26.0 billion yen, a share of 50% or higher for overseas operations, and an operating profit ratio of 12% as set forth in the 2020VI-SION, we need to increase consolidated revenue by 3.0 billion yen, mostly in overseas markets, over our FY2018 results, and to increase profitability by providing value to customers and raising our business efficiency.

To achieve these goals, Anritsu is working on "cultivating markets in advanced countries in Europe and the Americas, and the pharmaceutical manufacturing market, with X-ray inspection systems as a key solution" and "responding accurately to market needs through localization and transforming into a global business," as initiatives for GLP2020.

We are investing in the development of new sensors and R&D into image processing and signal analyzing technologies, such as AI, to produce "Original & High Level," high value-added solutions. Anritsu is also promoting the development of product platforms for successively commercializing new products with high customer value.

In major markets centered on advanced countries in Europe and the Americas, we will further cultivate our global relationships and develop customer response systems, optimize our supply chains on a global basis, and improve services and operational efficiency.

#### ■ First Year Results of GLP2020

The main achievements of FY2018 are as follows.

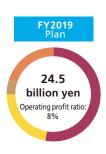
- Release of the "XR75 Series X-Ray Inspection System with Dual Energy Sensor," which adopted a newly developed sensor and image processing algorithm, and development of strategic products aimed at business development in the
  - pharmaceutical market
- · Cultivation of global relationships, focusing on North America, and strengthening of local business structures to provide better services
- Improvement of business processes and management infrastructure to achieve more responsive and accurate



XR75 Series X-Ray Inspection System with **Dual Energy Sensor** 

#### **GLP2020 Business Progress and Beyond2020**





# **GLP2020** 26.0 billion yen Operating profit ratio: 129



# • Strengthen our sales bases in Europe

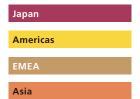
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• Promotion of solutions as a platform

#### **Toward Beyond 2020**

To achieve GLP2020

• Full-scale expansion into the pharmaceutical manufacturing field



management of business that will expand globally It will take time for these initiatives to produce results, but they are generally progressing so far on schedule.

# Toward Beyond 2020

Guaranteeing product quality is vital for all manufacturing industries. At present, Anritsu provides business solutions mainly to customers in the food industry; however, many challenges still remain in this field.

In addition, the pharmaceutical industry, which is directly related to human health, imposes its own stricter standards, and works on quality assurance day and night.

In the PQA business, we will accelerate business expansion in the food field and full-scale expansion in the pharmaceutical manufacturing field, thereby creating a path to sustainable growth with profits, from 2020 and onwards.

We will increase customer value by studying the latest quality assurance issues and creating unmatched original and high-level quality assurance solutions, and aim for an operating profit ratio of over 12%.

# Solutions for Society (SDG Initiatives)

The SDG Target 12.3 adopted by the United Nations indicates "halve per capita food waste at the retail and consumer level and reduce food losses along production and supply chains" as a concrete goal for achieving sustainable consumption and production patterns.

In response, many food companies are working to reduce food loss, as an issue toward contributing to the SDGs. Processing food at factories and then distributing it to the market is effective in reducing food loss, since it greatly extends the expiry dates of food and allows the secondary use of vegetable waste, etc. as feed and fuel.

Our quality assurance solutions can prevent products with quality problems from reaching the market, and in the unlikely event that some reach distribution channels, wastage losses associated with the collection of those products can be reduced by identifying the offending products and minimizing the scope of collection.

By providing advanced quality assurance solutions, our PQA Business will work together with our customers toward the realization of a sustainable society.