

From President of PQA Business Group



Become a world-class partner in quality assurance solutions
as we pursue a “First Call Company” role in the global market

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In Japan’s food products market, our PQA business has earned an industry-leading position, and is securing a stable foundation for earnings. In food markets outside of Japan as well, PQA has leveraged the high praise received for its X-ray inspection systems to power double-digit growth, that goes far beyond the market average.

Under the new three-year business plan, GLP2020, we will take the initiative to consolidate our business foundation, in order to drive business growth to the next stage in the global markets. Making continuous efforts not only for our quality assurance solutions received by our customers, but we will also aggressively invest in building our global supply chain platform for sales, production, and maintenance services, to become a world-class company which is trusted by global customers as an expert in problem solving.

Review of GLP2017 Surpassing the target by X-ray inspection systems and business globalization

Under the Mid-term Business Plan GLP2017 (fiscal 2015 to fiscal 2017), we formulated PQA business sales goals for fiscal 2017 of 20.0 billion yen in revenue, and an operating margin of 8%. We also tackled issues of globalization for the creation and commercialization of Original and High Level solutions.

In the three years of GLP2017, given the rising worldwide momentum of automation and sophistication in quality inspection systems, weighing machines and X-ray inspection systems, which are flagship products in the Japanese market, have seized upon demand and experienced growth as equipment associated with ready-made food products, such as processed meat products, frozen foods, and retort food products. In addition to the North American market where we have worked to develop cus-

tomers who would make X-ray inspection equipment their key solution, in China and Southeast Asia, Europe, and other regions, sales have, for the most part, been favorable.

As a result, PQA business sales amounted to 22,549 million yen, and the operating margin stood at 8.7%, an achievement that surpassed the goals set forth in GLP2017.

Business domain and solutions

■ Business domain and social value

The PQA business develops, manufactures, and markets quality inspection systems, and provides maintenance services, primarily on production lines for processed foods and pharmaceutical products. Business for the foods industry accounts for approximately 80% of sales. Many of the processed foods sold at supermarkets, convenience stores, or other locations are produced at food

plants, where each minute dozens of items are processed over a conveyer belt at extremely high speeds. It is in such production lines that PQA business products leverage automation, in processes that had formerly been operated by human hands, to contribute to improving productivity and quality.

Strengths and main solutions

Anritsu has positioned “measurement” as a business domain, and with its core sensing, as well as image and signal processing technologies, we work with our customers in the food and pharmaceutical markets to take on issues of quality assurance as it relates to safety and security. Current core products are automatic electronic weighing machines that sort food items into uniform weight categories, checkweighers that inspect content weight, and metal detectors and X-ray inspection systems that check for contaminants that may be mixed in with the product being examined. This segment also offers the system solutions active in analyzing the quality data generated by these systems products, identify the cause of

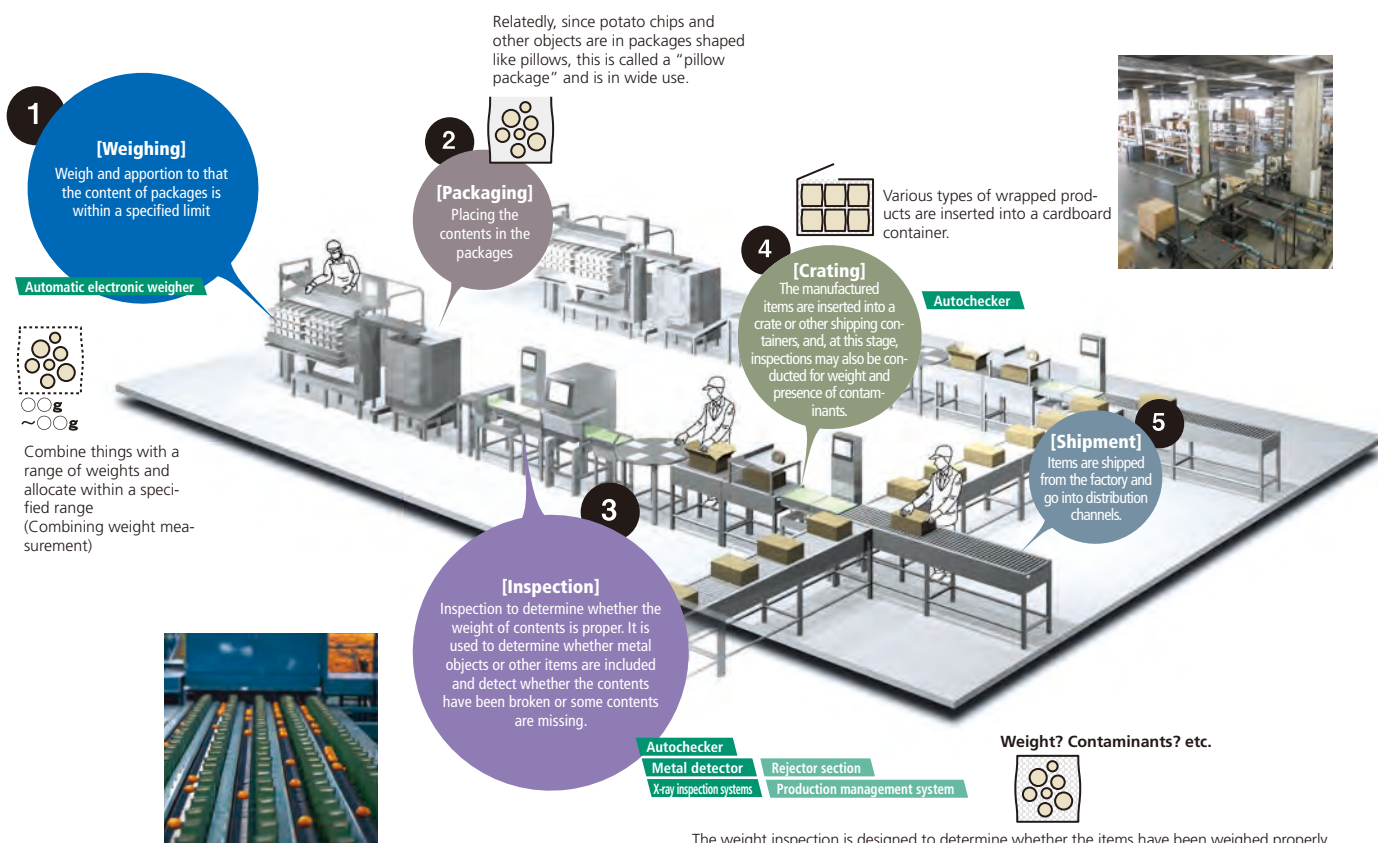
defects and enhance productivity, develop systems for traceability, and other features.

Supporting with quality assurance tailored to individual customers

The production line environment varies greatly depending on the goods being produced and the consumer culture of a particular region. There is also variation with regard to customer preferences for quality inspections. In addition, for inspection equipment that operates day and night on certain portions of a production line, customers demand a high degree of reliability so as to assure that production does not come to a halt on account of wear and tear or breakdowns.

Anritsu works to realize an integrated system that offers a flexible and rapid response at diverse sites where there may be no single, or similar type of environment. We offer the quality assurance solutions that are best suited to customer demands and the environments where they will be used.

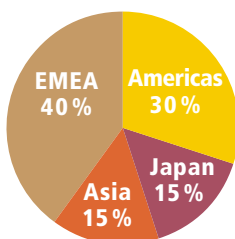
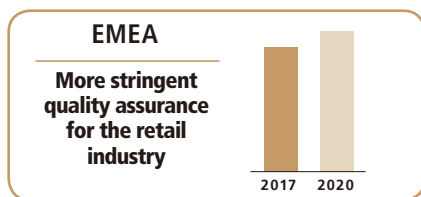
Example of a Production Line



The weight inspection is designed to determine whether the items have been weighed properly and are correctly packaged. At the contaminant inspection stage, verification of whether there are metal or plastic contents is conducted. In addition, the production management software “QUICCA” may collaborate in the inspection and weighing stages to monitor production.

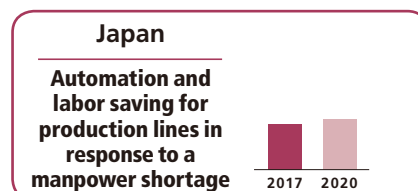
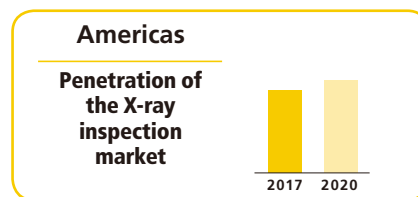
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Current Status of the PQA Market and Outlook



Global market size of 200 billion yen
(estimated by Anritsu in 2017)

Average growth rate of 4% expected by 2020



Market environment

Business sites in the foods industry, which are the customers of the PQA business, account for over a hundred thousand companies on a global basis. Quality assurance needs in the food industry are growing more sophisticated in advanced countries, and, together with this, are continuing to spread to emerging nations.

Japan is experiencing a shortage of workers associated with a declining birthrate and an aging of society, which is leading to rising needs for automation and labor saving on production lines. Moreover, Anritsu's solution partners, such as convenience stores and large-scale supermarkets, are working to build up supply chains with the aim of "total quality assurance, from production to sales."

In the North American market, inspections using X-rays are increasingly being adopted, with demand growing primarily to detect bones that remain in meat products and to inspect confectioneries or ready-cooked meals.

The market for quality inspection systems in Europe has become mature, and it is moving forward on the standardization of its quality control standards. Many of the international standards emerge from Europe, and this has become a leading market with regard to food safety and security.

In China and ASEAN countries, in line with the expanded distribution of packaged food products, there are rising needs to ensure food safety. We anticipate demand for quality inspections to continue growing in the future, particularly from global companies based in Europe and the United States and leading regional food companies.

The sales ratio outside Japan of the PQA business is approximately 45%. We intend to as soon as possible raise our presence in world markets and increase this ratio to over 50%.

Growth strategy

■ Basic policy for GLP2020

Anritsu's new Mid-term Business Plan, GLP2020, is comprised of the pillars of "global business expansion," "creation of customer value with quality assurance solutions," and "co-creation and development with advanced customers." Anritsu is working to position the three years of the plan up until 2020 as an important period of preparation to become a truly global company, which is "a world-class quality assurance solution partner" that customers around the world will be the first to call.

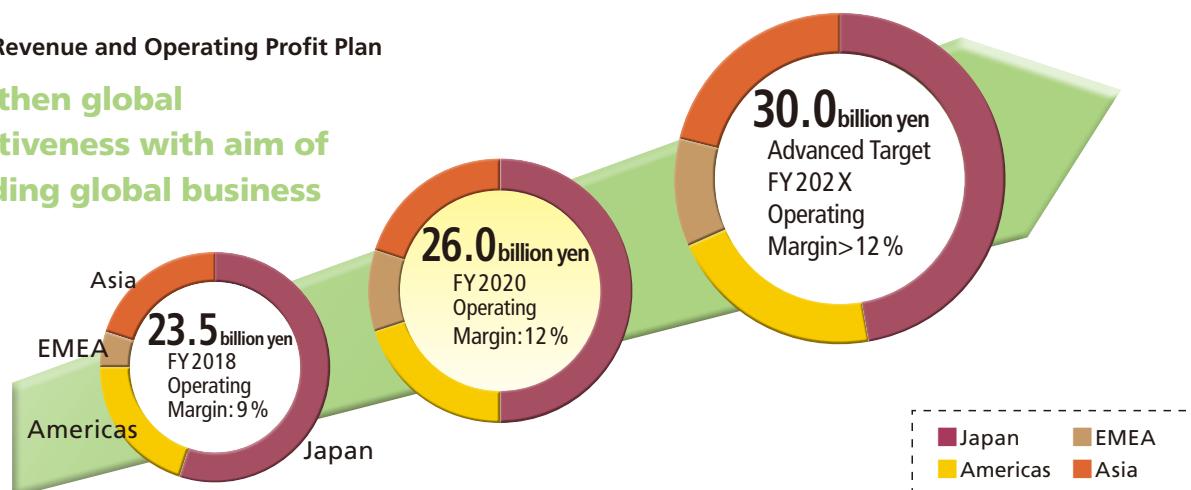
PQA is setting its revenue targets for fiscal 2020 at 26.0 billion yen, in line with the market average growth rate. Together with preparation for a leap forward after 2020, during our next mid-term management plan, "GLP2023," we are setting our sites on revenue of 30.0 billion yen. To achieve this, we are moving forward on building our business structure, investing to raise productivity, and optimizing business processes. We are also going to make a full-scale entry into the European market and pharmaceuticals market so as to accelerate growth in the years following 2020.

■ Solution innovation

For quality assurance in food products, with current technology it is difficult to inspect all items passing through the production process for contaminants of biological origin, including hair or bugs, or chemical contamination from residual pesticides or poisons. In addition, another issue is to resolve problems of defective products that become a cause for recall and disposal, as they may have expired consume-by dates or mislabeled ingredients. We will seriously tackle these as issues we ourselves should address, innovating with our sensing technology and quality data analysis technology, overcoming such issues together with our customers.

GLP2020 Revenue and Operating Profit Plan

Strengthen global competitiveness with aim of expanding global business



Pharmaceuticals, along with food, is an important industry to realize “a society in which all can live in health and safety.” Even more than the food industry, the pharmaceutical industry proactively imposes severe levels of quality assurance. Expanding business in the pharmaceutical market is not only a matter of offering the highly efficient quality inspection methods fostered in the food industry, but also is an extremely important initiative even above raising the level of our quality assurance solutions. We are working to develop and enhance solutions that meet the needs of the pharmaceutical market, and to advance the building of a support structure in which we can achieve business expansion in this market.

■ Looking toward an operating margin of over 12%

On the earnings front, one issue we face is to achieve sustained and profitable growth that leads to success amid market competition characterized by the escalating severity associated with business globalization. We will innovate with the value we offer, transforming to solutions that provide total support for the quality assurance activities of our customers. In tandem with that, we will expand solutions that are highly value added in the European and U.S. markets, and in the pharmaceutical market, and will improve our product mix.

We will also strive to improve our financial position on a global basis, undertaking such measures as global optimization of production processes and supply chains, raising development efficiency by renovating our product platform, and reducing our inventory assets through agile production processes. Our aim is to realize an operating margin of 12%.

Social value delivered by the PQA business

As the world’s population grows, one social issue of enormous importance is the eradication of starvation, and partic-

ularly with regard to the supply and demand of food, not wasting limited food resources is an ongoing advantage.

In the PQA business, we deploy to food processing lines, the high quality and extremely efficient systems of quality assurance that contribute to lowering food loss by food product companies, and the stable supply of safe and secure food items. By doing so, food product makers can find secondary uses for the leftover scraps of prepared food, such as for animal feed, and enable effective use of food ingredients and raise the energy efficiency associated with food preparation. In addition, the quality assurance for food items we offer to food product makers is a matter of utmost importance, and there is a huge risk of an adverse impact on brand survivability, in the event that there is a food product-related accident of recall. Taking secure measures for quality assurance are one way to mitigate risk, and, at the same time, will lead to lower food loss associated with collection, reduce energy required for transportation, and other benefits.

On the other hand, food product companies in developing countries perform a critical mission in society. Hand-in-hand with providing a stable supply of food items, as providers of one element of social infrastructure, namely, clothing, food, and housing, these companies offer opportunities for healthy employment and contribute to economic development. The high quality and exceptionally efficient food product production systems that were cultivated in advanced countries not only help to develop the economies of emerging markets, but also hold enormous possibilities for sustainability on a global scale.

Our PQA business, through advanced quality assurance for food items and pharmaceuticals, continually strives for a society where everyone can live in safety and security, and to contribute to a sustainable society with low food loss.