

Practice of Value Creation

— Provision of Value to our Customers

Creating new value together with customers at their sites

Automation is playing a growing role as a solution for addressing various social issues and meeting changing customer needs.

The azbil Group combines the measurement and control technologies it has cultivated to date, the knowledge it has gained working on site, and advanced IoT, AI, and big data technology to create new value through its business while working together with customers at their sites.

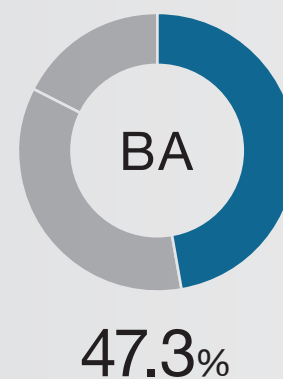
At a Glance

BA

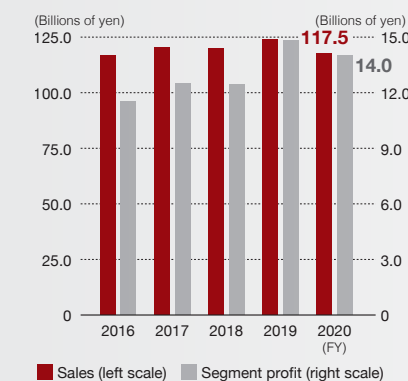
Building Automation Business

We create comfortable and efficient office and production spaces and reduce the environmental burden by using our original environmental control technologies to deliver comfort, functionality, and energy efficiency for all types of buildings.

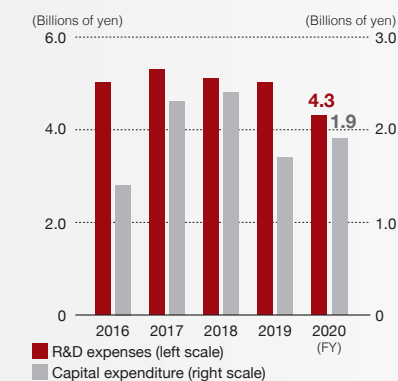
Share of Net Sales
by Segment



Sales, Segment Profit
(Operating Income)



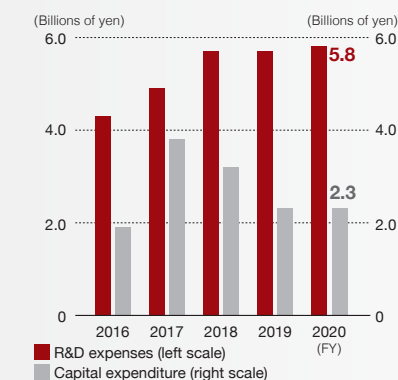
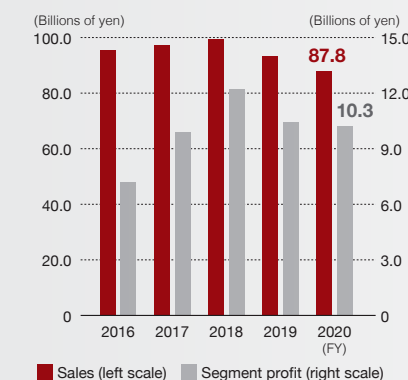
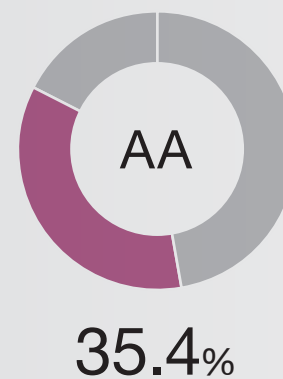
R&D Expenses,
Capital Expenditure



AA

Advanced Automation Business

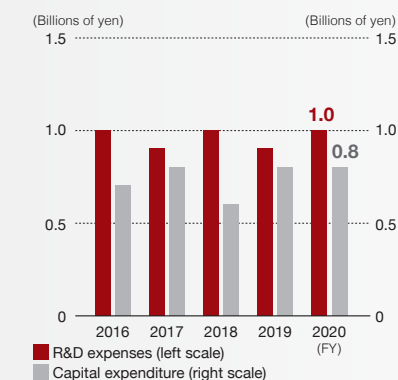
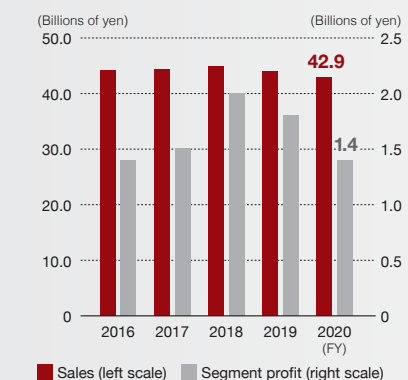
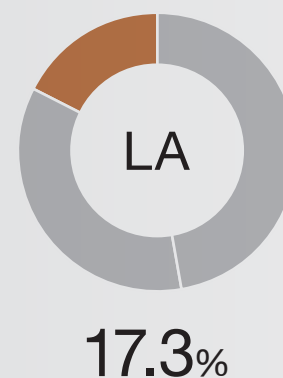
We develop advanced measurement and control technologies for factories and plants to help create production sites in which people can safely fulfill their potential. We create new value in collaboration with our customers.



LA

Life Automation Business

We apply our measurement and control technologies and services cultivated over many years for buildings, factories, plants, and basic infrastructure to lifeline utilities such as gas and water, residential central air-conditioning systems, life science research, and pharmaceuticals. We help people to enjoy active lifestyles.



BA

Building Automation Business

We create building environments that balance comfort and energy saving, and provide long-term services throughout building life cycles.

The Building Automation (BA) business provides products and systems necessary for air conditioning control of office buildings and all types of large-scale buildings through an integrated framework, ranging from the development, manufacture, and sales of products and systems to engineering, installation, and maintenance services.

We deploy our advanced automated air-conditioning control technology combining control systems and application software for air-conditioning facilities with various devices (controllers, valves, and sensors) along with our proprietary

environmental control technologies. With these technologies, we create business and production spaces designed for comfort and health as well as overall “wellness” that help boost business efficiency and labor productivity while minimizing environmental impact.

Using our strength in providing total solutions covering the life cycles of buildings, we support stable operation and increasing the asset value of customer buildings over the long term, beginning with building construction and through maintenance services, renovation, and energy-saving solutions.

Features and Strength

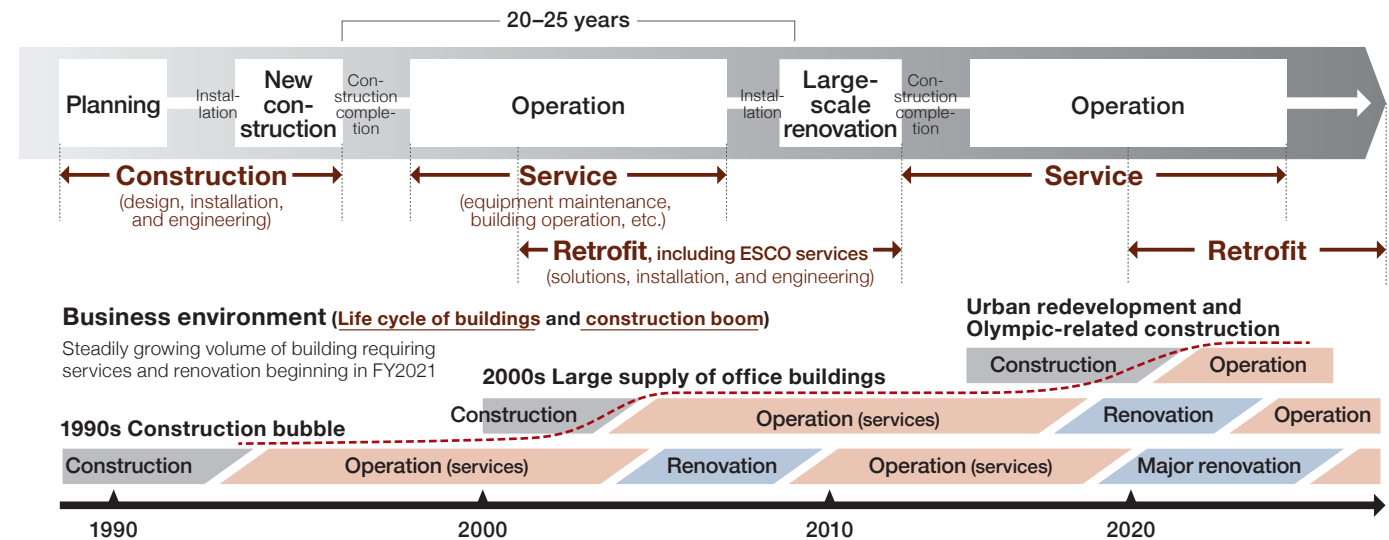
- Presence** **Pioneer in the air conditioning control field**
Pioneer in Japan in air conditioning control for large buildings
- Technical capability** **Environmental control technology utilizing cloud computing and AI**
Original environmental control technology using networks and operating data to improve safety, comfort, and environmental performance
- Earning power** **Life-cycle business**
Stable business model aligned to building life cycles from construction planning to providing daily services and supporting renovation projects

- Product strength** **Full lineup of products**
Respond quickly to social issues by in-house development and manufacture of sensors, valves, controllers, and systems, including open innovation
- Execution ability** **Total solutions / Integrated framework**
Integrated framework for instrumentation design, installation and engineering, maintenance services, energy-saving solutions, and building management and operation

Business Fields

Office buildings, research laboratories, factories, data centers, government buildings, hotels, shopping centers, hospitals, schools, airports, etc.

Building Life cycle

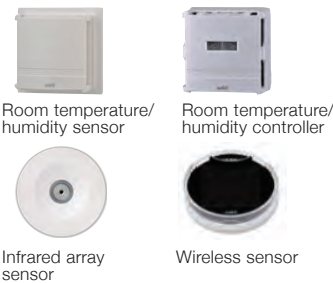


Provide services catering to building life cycles by integrating building automation and IoT and other new technologies

Detecting

Sensor and measurement devices

Sensing and measurement of room temperature/humidity



Settings

User-operated devices

Building users can set the temperature, humidity, and other variables



Monitoring and Managing

Building automation (BA) systems

Monitoring and management of the indoor environment, security, equipment, and energy usage throughout the building



Protecting

Security systems

Controlling access to building commons and interiors



Controlling

Regulators and controllers

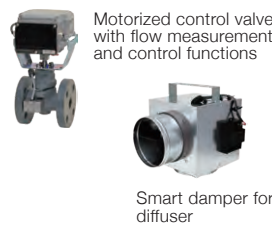
Control of building facilities and instruments to keep them in an optimal state



Adjusting

Valves and actuators

Optimal adjustment of the flow rates of hot/cold water or steam used in buildings



Development and manufacture of building automation systems, automatic control equipment, and application software for building management

BA

Building Automation Business

Medium-term plan | Vision and growth strategy for the BA business

Becoming an Asia-based world-class supplier of building systems

“ The BA business is pursuing ongoing business growth by actively integrating new technologies and providing solutions for modern needs such as decarbonization and the “new normal.” ”

Changes in the business environment and customer needs

- ◆ Major construction projects in Japan and Asia
- ◆ Increasing demand for building renovation in Japan
- ◆ Decarbonization spurring energy-saving and CO₂ emission reduction needs
- ◆ Pandemic creating need for advanced safety and security including improved ventilation and access control
- ◆ Rising demand for safe and comfortable offices leading to improving productivity in the “new normal” era

Kazuyasu Hamada
Director, Managing Executive Officer
President of Building Systems Company, Azbil Corporation

Core Strategies

- ◆ Use our accumulated data and expertise to provide energy efficiency solutions
- ◆ Integrate our BA system, IoT devices, and field equipment to optimize energy usage, air quality, and temperature quality
- ◆ Introduce cloud-based energy efficiency and virtual power plant (VPP) services
- ◆ Develop proven energy-saving apps and engineering services meeting safety and comfort needs overseas

Fiscal Year 2020 Performance Review

Operating environment

The BA business had several projects that were delayed because of the COVID-19 pandemic, but the overall impact during the year was limited in Japan. Demand continued from urban redevelopment projects in the Tokyo metropolitan area and included growing interest in solutions for improving ventilation, saving energy, reducing CO₂, and lowering operational costs. Overseas, the sluggish demand and delayed projects caused by the pandemic adversely impacted our business performance.

FY2020 business review

In these business conditions, we diligently worked to secure orders while maintaining and enhancing profitability and strengthen our job execution capabilities and efficiencies primarily at our construction and service sites with a view to responding to the Japanese government’s workstyle reforms while giving due consideration to the safety of our employees and customers.

The BA business recorded a 3.6% decline in orders received from FY2019 to ¥118.503 billion. Demand remained steady for sales and installation of air conditioning control equipment and systems for new large-scale buildings and was strong for renovation and services related to ventilation, energy saving, and CO₂ emissions reduction solutions. However, the

service business declined owing to a low volume of multi-year service contracts coming up for renewal during the fiscal year. In addition, scrutiny of project profitability led to a temporary decline in orders received from existing buildings during the first half of the fiscal year.

Sales declined 5.1% year on year and fell short of our plan. While sales had continued at a high level, due to project completion concentrated in FY2019, sales for new large-scale buildings declined, as did sales for existing buildings (for the aforementioned reason). Overseas sales were also impacted by project delays caused by the pandemic. We controlled costs and took steps to improve profitability, but the decline in sales resulted in segment profit declining 5.8% year on year.

Fiscal Year 2021 Performance Plan

We aim to increase both sales and profits in FY2021 by capturing the strong demand for air conditioning control equipment and systems for large buildings, working through the order backlog for new building construction, and responding to the rising demand for building renovation.

Initiatives to Accomplish the Medium-term Plan

Longer-term outlook

In the medium and long term, we plan to leverage our solid track record to fully respond to the expected rising demand from major redevelopment projects and for renovation of numerous large buildings beginning in FY2021.

We expect growing demand for optimal automated air-conditioning control to realize comfortable environments and increasing need for energy saving and CO₂ reduction accompanying the movement toward decarbonization. Although the increase in remote work due to the pandemic could reduce demand related to office buildings, we expect the “new normal” to increase demand in Japan and overseas for solutions for the highest S-class and A-class large-scale office buildings with ventilation, room access control, and other functions offering safety, security, and wellness.

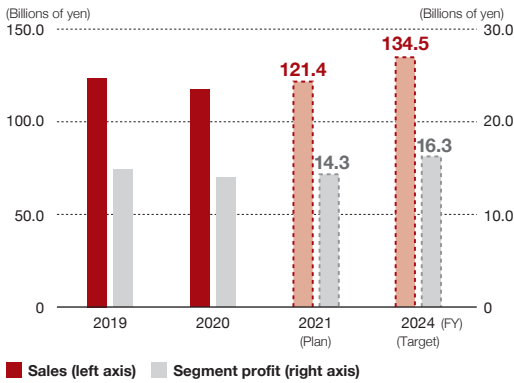
To respond to the growth in demand, the azbil Group will continue expanding its business by continuing to provide solutions built on its established engineering, installation, and service structure and extensive data and expertise while also offering innovative solutions for remote maintenance, cloud-based services, and cell air conditioning systems. We are also advancing internal measures, including reforming our business processes, to establish a more robust profit structure.

Initiatives to attain the medium-term plan performance targets

Expand the three growth fields / Respond to new social issues

The areas of the retrofit business that we expect to expand in Japan are environmental and energy and life-cycle business. We will capture demand in those areas by offering solutions incorporating our vast store of operating data. We expect to see an increasing number of VPPs come into operation for the advantages they offer of using renewable energy and curbing demand, and plan to support the use of VPPs by devising solutions unique

Sales and Segment Profit



to the azbil Group that will utilize BA systems already installed in large buildings.

Develop and launch new products and services

We plan to introduce new cell air conditioning systems and other new products, systems and services incorporating cloud computing and AI to meet the needs for new office environments accommodating the diverse workstyles under the “new normal.” We also plan to actively promote collaborative creation and open innovation with companies outside the Group.

Increasing overseas customer contact points (coverage)

We will expand our overseas business by introducing products for overseas markets and building relationships with leading companies.

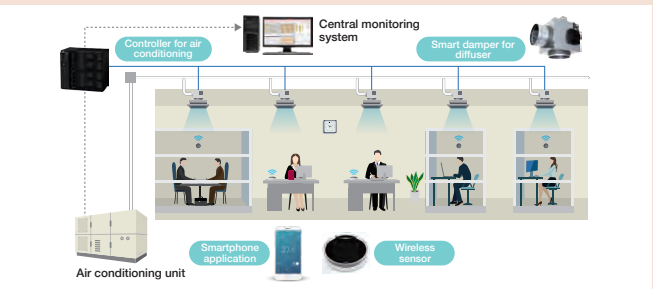
Digital transformation (DX) and increasing profitability

We are introducing revamped products and building a structure using building information modeling (BIM)* and other technologies to support ongoing profit creation. The structure will also be used for our businesses overseas in the future.

* Building information modeling is a method of using databases to enhance the productivity of the building design and construction by enabling real-time, three-dimensional management throughout a building life cycle

Close Up

Cell type air conditioning system — A new air conditioning system for the diverse work styles and offices in the “new normal” era



New work styles demand more personalized air conditioning systems. The azbil Group helps create healthy and attractive offices with comfortable, energy-saving, and ideal work layouts.

- ◆ Temperature control for each cell (air outlet unit) in a zone
- ◆ Ability to control indoor CO₂ concentration and ventilation using air from an outside source is effective for preventing the spread of infection
- ◆ Workers use a smartphone application to make their space comfortable

Advanced Automation Business

We work with our customers to solve problems at manufacturing sites and create safe, comfortable, and ideal work environments.

Our Advanced Automation (AA) business fields are broadly divided into the process automation (PA) field, related to the materials industry, and the factory automation (FA) field, related to the processing and assembly industry. The azbil Group structures its activities in the PA and FA fields into the three business sub-segments of control products (CP), industrial automation products (IAP), and solution and service (SS). We make full use of our high degree of expertise and familiarity with specific market needs and product characteristics of each

sub-segment to provide a variety of solutions enabling advanced control and optimized operation throughout the life cycles of customer equipment and facilities, from systems, products, and software to instrumentation and engineering and maintenance services. Incorporating the latest technological innovations such as IoT, big data, cloud computing, and AI, we create new value at the manufacturing site by working with customers seeking safe and stable operations, improvements in productivity, and innovation in production processes.

Features and Strengths

Presence

Leading the industrialization of Japan

Unmatched ability to generate new value backed by over a century of developing measurement and control technology at production sites and substantiated by abundant success and expertise in a wide variety of industries

Technical capability

Combining on-site knowledge and the latest measurement control technologies and information technologies

Field professionals combine their skills and knowledge to provide measurement and control solutions optimized for production sites and smart IoT services using big data and AI

Execution ability

Total solutions / integrated framework

Developing business in the three AA business sub-segments based on market characteristics; providing solutions tailored to customer needs through an integrated framework from the development of products and applications to instrumentation, engineering, and maintenance services


Product strength

Sensors and field instruments incorporating advanced technology

Sensors and field instruments incorporating MEMS and other advanced technologies for quick and accurate on-site capture of information critical to sophisticated control


Business Fields and Business Units

Business Fields



Factory Automation
(processing and assembly industries)

Electrical and electronic devices, semiconductors, food, pharmaceuticals, and other industries handling or using automation in production processes



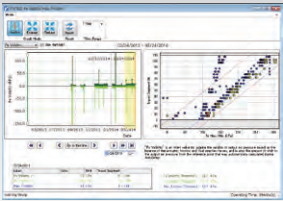
Process Automation
(materials industries)

Petrochemical, chemical, steel, and other industries that supply materials used in production processes

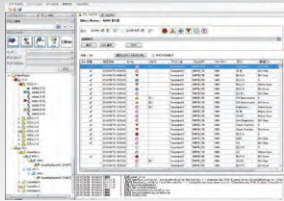
Three AA Business Sub-segments	Main Products and Services
Control Product (CP) Business Supplying factory automation products such as controllers and sensors	<ul style="list-style-type: none">◆ Sensors and switches◆ Controllers◆ Flat-panel displays and recorders◆ Combustion safety and control systems
Industrial Automation Product (IAP) Business Supplying process automation products such as differential pressure & pressure transmitters and control valves	<ul style="list-style-type: none">◆ Control valves and actuators◆ Measuring instruments and transmitters (Flow rate, temperature, pressure, liquid surface, etc.)
Solution and Service (SS) Business Offering control systems, engineering services, maintenance services, energy-saving solution services, etc.	<ul style="list-style-type: none">◆ Industrial automation control and monitoring systems, applications, and software◆ Maintenance service

Diagnosing

Visualization and diagnosis of the status of production and equipment operation using high-performance sensors



Control valve maintenance support system



Device management system

Predicting

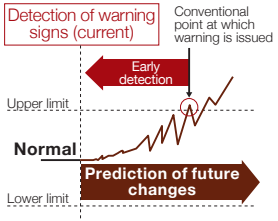
Using big data and AI to detect anomalies beforehand, predict the future status, and optimize operational plans



Online anomaly detection system



Early warning system for time series data



Using big data and AI at manufacturing sites to facilitate safer and more stable operations

Adjusting

Control valves
Optimal adjustment of the flow rates of gases and liquids at customer sites



Control valve and smart valve positioner

Detecting

Sensors and switches
Precise detection and high reliability to support a broad range of needs at customer sites



High-accuracy position sensor



Photoelectric switch



Advanced ultraviolet flame sensor



Intelligent earthquake sensor



Limit switch



Micro flow rate liquid flow meter

Controlling

Controllers
Optimal control of processes, equipment, and facilities



Multi-loop controllers with multifunction display



Network instrumentation module



Process controller

Mass flow controllers

Control flow rates of gases to a set value



Digital mass flow controller

Measuring

Process sensors
Measurement of flow rates, pressure, liquid level, and calorific value



Differential pressure and pressure transmitter



Electro-magnetic flow meter



Vortex flow meter



Natural gas calorimeter

Development and production of measurement and control instruments, monitoring and control systems, and applications that solve problems at production sites

Advanced Automation Business

Medium-term plan | Vision and growth strategy for the AA business
Developing a globally competitive business to become a high-profit business entity that contributes to a sustainable society



“ The AA business is developing products and services integrating AI, cloud computing, MEMS*, and other technologies and accelerating entry into new markets, and creating the new automation field unique to the azbil Group. ”

Changes in the business environment and customer needs

- ◆ Growing demand for manufacturing equipment and production line automation for new products and services
- ◆ Growing demand for energy-efficient, GHG-controlled production facilities for decarbonization
- ◆ Growing demands to ensure safe, efficient operation of facilities, respond to labor shortages, and for products and high value-added services for the “new normal”

Core strategies

- ◆ Develop new products using MEMS technology and expand the measurement field
- ◆ Develop new products, systems and services for anomaly detection and prediction and AI equipment diagnosis that integrate cloud computing, AI technology, and IoT devices
- ◆ Develop proven and competitive products and services offered in Japan for overseas markets

Yoshimitsu Hojo
Director, Managing Executive Officer
President of Advanced Automation Company, Azbil Corporation

Fiscal Year 2020 Performance Review

Operating environment

Regarding FY2020 market conditions affecting the AA business in Japan and overseas, there has been demand growth in markets for semiconductor manufacturing equipment, due to expanding investment in 5G and other areas. There are signs of economic recovery from the COVID-19 pandemic. Although the effects of the pandemic remain unpredictable, we expect demand to continue to grow in manufacturing equipment and other markets in Japan and overseas.

FY2020 business review

In this business environment, we continued steadily implementing measures, such as cultivating customers and developing our overseas bases and structures, in anticipation of further recovery in demand and future growth. We also thoroughly implemented and expanded measures to enhance profitability that have produced tangible results.

AA business orders received ultimately declined by 4.8% from FY2019 to ¥87.524 billion. Although orders turned upward year on year in the fourth quarter, overall orders received for the full year were impacted by the global economic slowdown due to the pandemic and an overall decline in capital investment for plant and factory production lines and manufacturing equipment.

Sales were supported by the expansion of our overseas business and the improvement in manufacturing equipment markets, but ultimately declined 5.8% year on year overall due to the decrease in capital investment caused by sluggish market conditions. Sales exceeded our plan, buoyed by accelerated business growth overseas and the recovery in manufacturing equipment markets.

Segment profit declined 2.2% year on year due to the decrease in sales, however profit margins exceeded our plan, fueled by ongoing progress with growth strategies and measures to enhance profitability.

Fiscal Year 2021 Performance Plan

We aim to increase both revenues and profits in FY2021 by harnessing the recovery in capital investment accompanying improving conditions in the manufacturing equipment markets in Japan and overseas, aggressively developing customers and introducing new products overseas, and implementing measures to further enhance profitability.

Initiatives to Accomplish the Medium-term Plan

Longer-term outlook

In the medium and long term, we anticipate growing investment demand to respond to labor shortages, the decarbonization of society, remote work and the “new normal,” and to advance the continuous automation of manufacturing equipment and production lines to increase productivity by introducing new technologies.

We will continue advancing our business expansion into growth fields, particularly overseas, centered on the CP, IAP, and SS businesses. We will accelerate the development and market launches of products and services incorporating AI, cloud computing, and MEMS technologies, create the new automation field unique to azbil, and aim for business growth with high competitiveness.

Initiatives to attain the medium-term plan performance targets

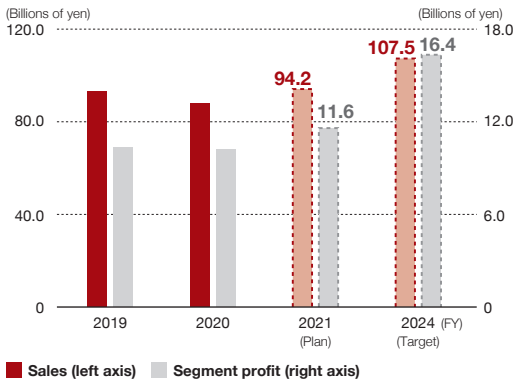
Expand the three growth fields / Respond to new social issues

The AA business covers a wide range of business fields and a variety of markets through its CP, IAP, and SS businesses and within each of these sub-segments we are focusing in further detail and leveraging azbil’s unique characteristics to develop business in the three growth fields. We will efficiently establish a number of business fields with a competitive advantage and strengthen our business portfolio.

Measures to boost profitability

We will further advance measures to strengthen profitability tailored to the characteristics of each business sub-segment. Measures will include expanding overseas production and procurement, redesigning products to reduce product costs (revamping core products), improving the cost of products and services by improving engineering methods, improving the order amount by revising selling prices and strengthening job risk management, and improving the product and service mix by shifting to high-profit offerings.

Sales and Segment Profit



Develop and launch new products and services

We will increase R&D investment and take a balanced approach of developing products and services from a long-term perspective while exploring new technologies. In the near term, we will revamp our product offerings in each business sub-segment’s primary business field. We have set creation of the “new automation fields” to be the main driver of our business growth and where we will introduce new products and services that leverage azbil’s strengths in MEMS and other technologies. To grow the fields, we will restructure our product development process and acquire new development methods.

Increase domestic and overseas customer contact points (coverage)

We see abundant room to expand our customer base in overseas markets and are accordingly reinforcing our overseas business structure by increasing our sales staff, strengthening their skills, and increasing the number of distributors in overseas markets. In Japan, we will revise our sales structure and continue expanding our customer coverage. We will also introduce DX to our sales functions, such as for sales force automation, in Japan and overseas.

* Devices built using microfabrication technology to integrate sensors, actuators, and electronic circuits on substrates

Close Up

The valve analysis and diagnosis service —A cloud-based service for safe and stable operation and maintenance optimization



Cloud-based monitoring has enabled early detection and prediction of valve anomalies that had previously been possible only by dismantling equipment to inspect a valve’s internal condition. Cloud-based monitoring prevents trouble caused by valves and contributes to stable production equipment operation.

- ◆ Automatically sends valve operation data to the cloud for analysis
- ◆ Enables users to confirm the results of a valve “health checkup” by visualization when needed in the right format and in the right situation.
- ◆ Facilitates optimal maintenance plans taking into account condition-based maintenance and without requiring special analytic or diagnostic technology or expertise; enables stable operation and strengthens safety capabilities of production equipment

Life Automation Business

Measurement and control technologies for safe, secure, comfortable, and healthy living

The Life Automation (LA) business leverages automation technologies to meet a vast variety of needs in people's every-day lives including realizing safe and secure living conditions, supporting fulfilling lives, and helping to address environmental issues. Through our business we enhance safety, security,

comfort, and energy saving in various fields ranging from lifelines such as gas and water, living spaces including our residential air-conditioning systems, to research, pharmaceutical, and medical facilities that contribute to people's health.

Business Field Overview

■ Lifeline (gas and water meters) field

The LA business provides household meters for city gas, LP gas, and water as well as products for industrial use, including regulators and safety equipment, such as alarm units and automatic shut-off valves. The azbil Group's meter business took a huge step in its development in December 2005 with the acquisition of Kimmon Manufacturing Co., Ltd. (now Azbil Kimmon Co., Ltd.), a pioneer in metering instruments that introduced Japan's first domestically produced gas meter in 1904. The company currently offers city gas, LP gas, and water meters and enjoys a stable business foundation benefitting from legal requirements that support steady replacement demand for gas and water meters. Kimmon Manufacturing is currently developing smart meters with IoT technology.

■ Life science engineering (LSE) field

Our total solutions for pharmaceutical manufacturers encompass development, engineering, installation, sales, and after-sale services for lyophilizers, sterilizers, and clean environment equipment, and other equipment. The azbil Group's LSE business was boosted in January 2013 with the addition of Spanish company Telstar S.A. (now Azbil Telstar, S.L.U.), a supplier of process equipment and environmental systems for pharmaceutical companies and laboratories with operations in Europe, Latin America, and South Asia. Telstar has a long track record and extensive experience in engineering and providing equipment and services related to the life science field.

■ Residential central air-conditioning systems

We adapt our air-conditioning technology for large-scale buildings to central air-conditioning systems for detached houses, with a single system for cooling, heating, ventilation, air purification, and dehumidification that provides a comfortable environment throughout the house. These systems also deliver comfortable and healthy living spaces through features including electronic air cleaners with pollen and PM2.5 particle removal technology and variable air volume (VAV) control enabling temperature settings for each room.

Features and Strengths

Stability and growth potential Meeting replacement demand

Meters for replacement demand as required by law, smartification of gas and water meters, and use of smart meters to develop an "as a service" business model

Growth potential Contributing to advanced medical care

Engineering services and safe and high-quality equipment for pharmaceutical research and development, manufacturing sites, and medical institutions

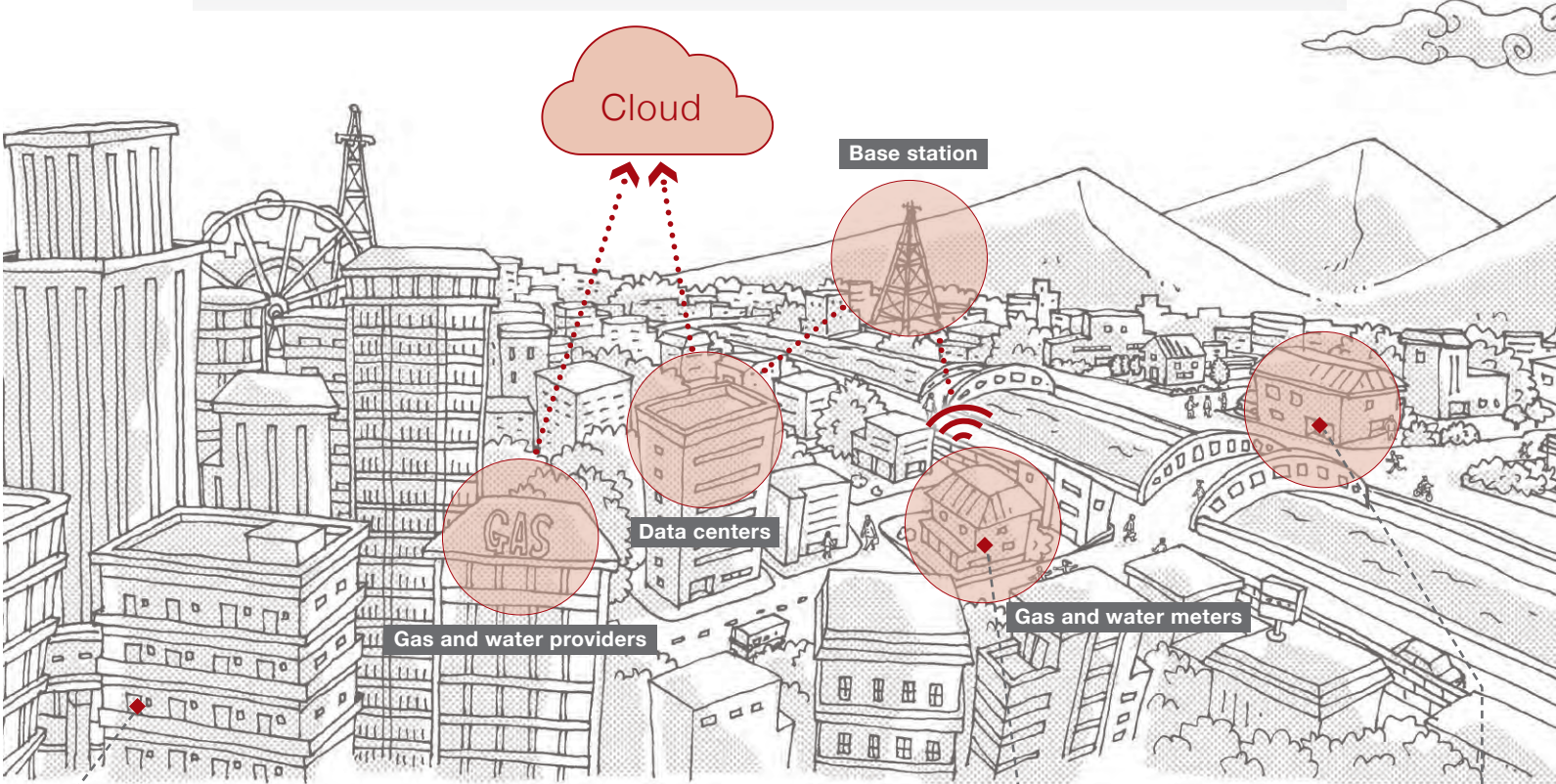
Uniqueness Whole building air conditioning

Centralized air-conditioning systems equipped with comfort features provide high level air quality, ventilation, and comfort

Meter data services incorporating IoT

The LA business is advancing the incorporation of IoT to water and gas meters. In the LP gas market, we are expanding sales of our cloud-based data service for monitoring meter reading, security, and alarm conditions using LTE-M* standard IoT communications technology. We are also introducing a similar data service for city gas and water and exploring services that will offer new value by combining electricity, gas, and water data as we accelerate development of businesses applying automation to new fields for the era of Smart Metering as a Service (SMaaS).

* LTE-M is a communication standard for IoT using licensed frequency bands in a low-power wide-area (LPWA) wireless communications network.



Lifeline Field (Gas and Water Meters)

Azbil Kimmon Co., Ltd.

Gas meters



Intelligent city gas meter



Ultrasonic gas meter



LPWA capable intelligent LP gas meter



Ultrasonic LP gas meter



High pressure regulator

Water Meters



LPWA capable electronic water meter



Battery-operated electromagnetic water meter

Lifestyle-related Field (Residential Central Air-conditioning Systems)

Azbil Corporation

Air quality—ventilation and central air-conditioning systems

Ventilation is important in enclosed spaces. Unlike ordinary room air conditioners, our residential central air-conditioning system features a heat exchange ventilation system that refreshes the air in the entire house every two hours. These energy efficient air-conditioning systems also have electronic air cleaners that remove pollen and PM2.5 particles to further enhance air quality.



Indoor unit and electronic air cleaner



Outdoor unit



Outlet



Heat exchange ventilator

Life Science Engineering Field (Pharmaceutical Manufacturing Equipment)

Azbil Telstar, S.L.U.

Pharmaceutical manufacturing equipment



Barrier system



Lyophilizer

Total solutions for life science

Azbil Telstar offers solutions comprising design, engineering, and manufacturing processes backed by automation technology for life science companies. Teams of experts oversee the entire manufacturing process, including the design and manufacture of process equipment and facilities using original technologies for decontamination, pure water, pure steam, and freeze-drying. Delivered as turnkey projects*, these solutions contribute to efficient, environmental, and safe factory operations.

* Contracts in which a single contractor is responsible for the delivery date, assurance, and performance guarantee for all steps of development from design and the procurement of equipment, materials, and services, to the installation and test runs.

Life Automation Business

Medium-term plan | Vision and growth strategy for the LA business
Structural reform to transform from a “new” to a “growth” business group



“ We are transforming from a group of “new businesses” to a group of “growth businesses” as a data-driven service provider offering new services for the changing business conditions in the energy market. ”

Changes in the business environment and customer needs

- ◆ Growing demand for energy management, infrastructure maintenance, and safe and efficient operations
- ◆ Growing demand for IoT-compatible meters in a changing energy market, such as deregulation of gas
- ◆ Big data from smart meters to improve quality of life and for corporate environmental management
- ◆ Increasingly sophisticated medical safety and security needs

Core Strategies

- ◆ Advance the energy management and Smart Metering as a Service (SMaaS) businesses
- ◆ Develop pharmaceutical manufacturing solutions, such as for vaccines overseas
- ◆ Offer space comfort solutions featuring our variable air volume and clean air technology for small buildings

Masato Iwasaki
Director, Managing Executive Officer
Life Automation Business, Azbil Corporation

Fiscal Year 2020 Performance Review

■ Operating environment

The LA business’s three core fields each have a different business environment.

Sales in the lifeline field of gas and water meters, which account for the majority of sales, are primarily driven by demand for meter replacement as required by law and remained steady for the year. Demand for LP gas meters, which account for part of sales for the lifeline field, entered a slow period, and demand for water meters was sluggish due to the extension of calibration expiration periods during the pandemic. Demand fluctuated in the LSE field and the lifestyle-related field for residential central air-conditioning systems; however, the structural reform of businesses in these fields is making progress in stabilizing and improving profits.

■ FY2020 business review

Against the background of these business conditions and initiatives, overall orders received declined 3.2% from the previous fiscal year to ¥43.351 billion. Although there was an increase in the LSE field due to growing demand for R&D equipment in the pharmaceutical market in response to the pandemic, orders received declined in the lifeline field due to weak cyclical demand for LP gas meters and other factors.

Sales declined 2.5% year on year due to lower sales in the lifeline field, which more than offset higher sales in the LSE field following the increase in orders received in the previous fiscal year, and fell short of the plan. Primarily due to profits being impacted by lower revenues in the lifeline field, segment profit fell 23.1% year on year and fell short of the plan.

Fiscal Year 2021 Performance Plan

We aim to increase both revenues and profits in FY2021 by expanding our cloud-based services in the lifeline field and by working through the increased backlog in orders in the LSE field due to demand growth in the pharmaceutical market.

Initiatives to Accomplish the Medium-term Plan

■ Longer-term outlook

The LA business has a portfolio of businesses strongly associated with society, such as the meter business contributing to social infrastructure, equipment and engineering businesses supporting pharmaceutical manufacturing, and residential central air-conditioning systems. These business fields are also strongly related to the environmental and energy fields and two other growth fields. We will continue taking steps to stabilize and improve profits in each of the business fields.

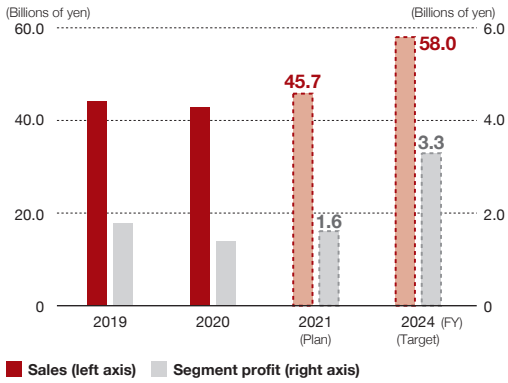
At the same time, we will augment our existing product-driven business by pursuing opportunities brought about by business environmental change in the energy supply market. For example, we will create new businesses as a service provider using IoT and other technologies and the data collected from our meters to boost sales and profits in the lifeline field. As we promote initiatives in each business field to generate business growth, we will transform the LA business from a group of “new businesses” to a group of “growth businesses.”

■ Initiatives to attain the medium-term plan performance targets

Lifeline field

We will build on our stable product sales supported by meter replacement as required by law by further developing our service business using IoT and our SMaaS. We also collaborate with the Takaoka Toko Group to expand the DX-EGA, next-generation energy management business which uses energy data for raising the quality of life and for transforming to a data service business for corporate business environments. We will also expand our lineup of smart meters for this new business.

Sales and Segment Profit



Life science engineering field

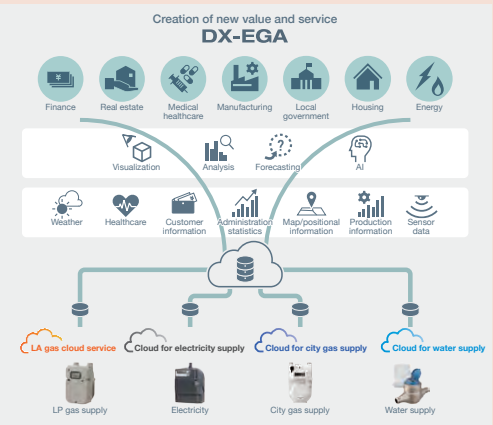
We will develop an IoT-supported service business with a main on designing sterile spaces and designing and manufacturing pharmaceutical production equipment through an integrated framework, from equipment layout design for the pharmaceutical production process, to equipment design, manufacture, and installation and after service. In this way, we will respond to the increasing demand worldwide for pharmaceuticals centering on regions with population growth.

Residential central air-conditioning systems field

As a business that improves the quality of life by helping realize comfortable spaces, we provide equipment and systems that create comfortable living conditions in a wide range of houses big and small, new, and old. We will also support our customers’ healthy living through air quality in their houses by offering equipment that improves ventilation using heat exchange ventilation and electronic air cleaners.

Close Up

DX-EGA, next-generation energy management business
— Creating new value by using measurement/metering data for decarbonization and addressing environmental problems



The DX-EGA is the concept of a collaborative business combining various business data and services with current data collection methods. Business conditions in the energy market are undergoing major changes amid the quickly growing movements for decarbonization and to address environmental issues. The azbil Group is responding by leveraging its existing platform to broaden its business from product sales to becoming a provider of services using the power of big data.

- ◆ SMaaS business combining the Takaoka Toko Group’s collaborative meter reading system and the azbil Group’s existing cloud-based data collection method for buildings and gas meters
- ◆ Providing added value in the energy and environmental fields, such as single household energy data analysis and supporting corporate ESG and carbon pricing. We are also planning to develop services for finance, distribution, healthcare, and other fields

Global Network

Through our global value chain, we aim to increase customer satisfaction and contribute to the resolution of social issues faced by society.

The azbil Group is creating an integrated value chain that includes technological research and product development, production and procurement, sales, engineering, installation, and services. While sharing case studies for advanced solutions and initiatives in Japan, the U.S., Europe, and Asia, we are working to improve customer satisfaction throughout the world and aim to resolve environmental and other global social issues.



Technological Research and Product Development

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Promoting research and global development in through our three main hubs in Japan, the U.S., and Europe

We have constructed a new building and introduced advanced facilities at our Fujisawa Technology Center, our core base for technological research and product development, working to enhance our capabilities by building an optimal research and development environment. We focus on research into cutting-edge technologies, such as next-generation measuring technology and IoT at our U.S. Silicon Valley location, and on the development of pharmaceutical manufacturing equipment in Europe. While pursuing initiatives that leverage the special strengths of each region, we are also creating synergies among our global locations.

R&D Bases

Japan Azbil Corporation's Fujisawa Technology Center, and other locations

USA Azbil North America Research and Development, Inc.; Azbil North America, Inc.; Azbil VorTek, LLC

Europe Azbil Europe NV, Belgium; Azbil Telstar, S.L.U., Spain

Azbil Corporation (Fujisawa Technology Center), Japan

Manufacturing and Procurement

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Building a highly efficient production system centered on our mother factory

We have established our main manufacturing bases in Japan, China, and Thailand to create and build a production system that combines global competitiveness with responsiveness to risks and changes in the market environment. Centered on our Shonan Factory and Fujisawa Technology Center, which function together as a mother factory, all Group companies and departments collaborate to maintain optimal costs and achieve production of high-performance, high-quality products that incorporate cutting-edge technology.

Main Production Factories

Japan Azbil Corporation's Shonan Factory, etc.

China Azbil Control Instruments (Dalian) Co., Ltd., etc.

Thailand Azbil Production (Thailand) Co., Ltd.

Azbil Control Instruments (Dalian) Co., Ltd. China

Sales, Engineering, Installation, and Services

p. 55

We work with our customers worldwide to create value rooted in their sites

Based on our global service network, we conduct integrated business activities that combine sales, engineering, installation, and maintenance. We promote DX maintenance using cloud technology. In response to the different problems faced by our customers in each region, we provide world-class solutions and maximize the value of our customers' facilities throughout their life cycles.

Main Sales and Services Locations

Japan Azbil Corporation; Azbil Trading Co., Ltd.; Azbil Kimmon Co., Ltd.; and others

Asia Pacific Azbil Control Solutions (Shanghai) Co., Ltd.; Shanghai Azbil Automation Co., Ltd.; Azbil Korea Co., Ltd.; Azbil Singapore Pte. Ltd.; PT. Azbil Berca Indonesia; and others

USA/Europe Azbil North America, Inc.; Azbil Europe NV; Azbil Telstar, S.L.U.; and others

Azbil (Thailand) Co., Ltd., Rayong Office (Solution & Technology Center), Thailand

Technological Research and Product Development

Promoting research and development of products and services based on our management strategy to capture the changing needs of the market

Technological development policy

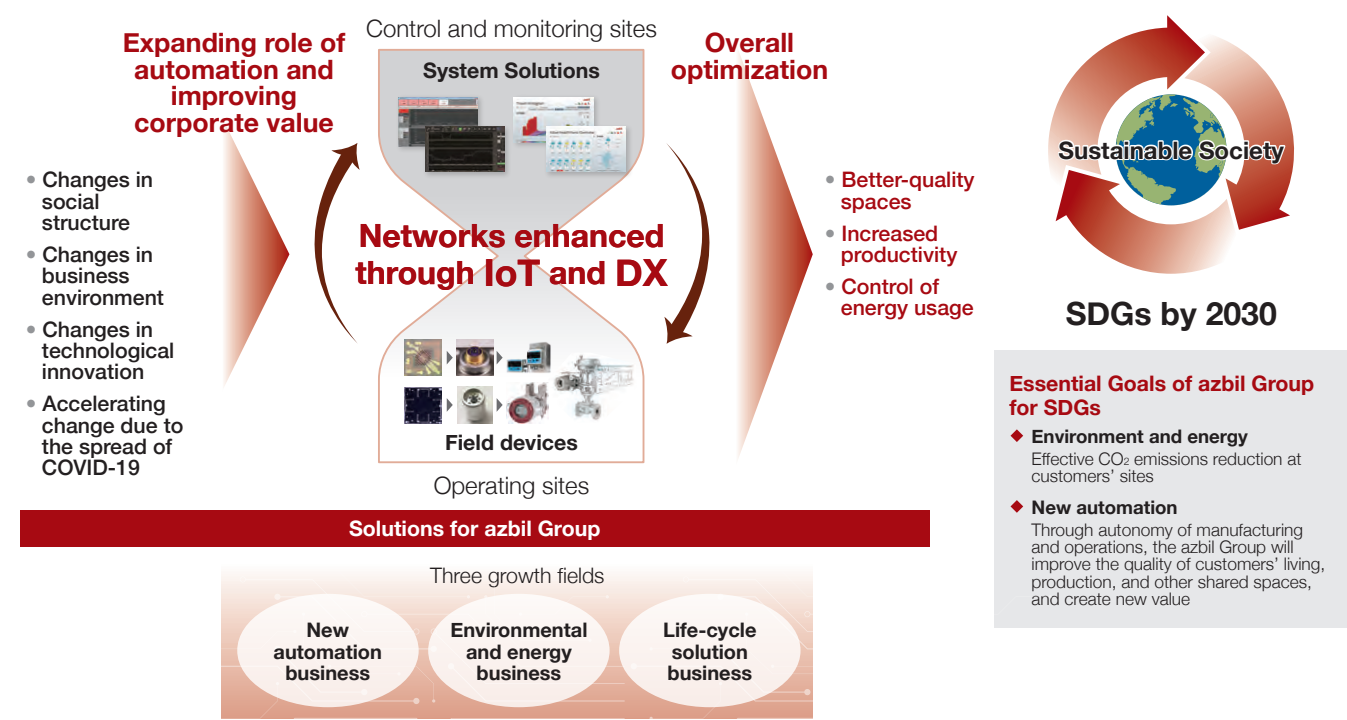
The azbil Group is introducing new, competitive products and services in the three growth fields of “new automation,” “environment and energy” and “life-cycle solutions,” which are positioned as the three growth business areas. For this purpose, we are working to further strengthen its measurement and control technologies for field devices and system solutions (figure below) in order to take advantage of changes in the business environment and in technology.

Specifically, we are promoting IoT and DX and our network between field devices in operating sites and our system solutions in control and monitoring sites. Through this network, sensing information received by field devices is aggregated and processed in our systems, which facilitates control planning and monitoring of sites, allowing for optimization of the entire measurement and control system. By promoting these initiatives, we aim to build optimal operating systems even for large-scale, complex control targets.

We are also simultaneously promoting the development of various individual technologies. For our field devices, we are incorporating MEMS, advanced measurement principles, and AI capabilities to pursue sensing devices with independent processing capabilities. In the area of system solutions, we are applying cutting-edge technology such as cloud systems and AI to process the big data received from operating sites as we work to build the entire system for optimal communication of complex phenomena. Through these initiatives, based on information that has been optimized using system solutions, we aim for more precise control of field devices by making them more user friendly and compatible with control devices.

tion of the entire measurement and control system. By promoting these initiatives, we aim to build optimal operating systems even for large-scale, complex control targets.

Direction of R&D



In doing so, we are developing the three growth fields to realize improvements to the quality of space and productivity of customers' assets as well as curbing energy usage as put forth in the new long-term targets to contribute to the resolution of social issues and realize our own sustainable growth.

To improve the quality of interior spaces at our customers' sites, it is important to understand which aspects of the interior environment create discomfort or negatively affect people's sensitivity or intellectual productivity, and then to control air circulation globally and locally based on whether (and how many) people are present. We are working to capture the necessary information on environmental factors to achieve this goal, and continually developing new technology to provide indoor environments in which everyone in the facility feels comfortable.

To increase productivity at operating sites, we are working to help our customers stabilize their operation quality by making complex processes more understandable in the interests of smart maintenance at manufacturing sites and by formalizing and automating human skills.

To minimize resource and energy use, in addition to using energy-saving technologies we have developed through extensive experience, we are working toward further optimization by understanding the best methods for saving energy without decreasing productivity or the quality of the indoor environment, and by learning from changes in the environment and understanding both current and predicted energy consumption.

Developing products by combining the three growth fields

While building unique solutions at our customers' sites, the azbil Group is pursuing the following initiatives in its three main businesses to continuously create new solutions.

Building Automation business

To counter global warming, we are doing retrofits for existing buildings and developing energy management technology to achieve a continuous reduction in the CO₂ emitted from large buildings. We are also developing a product group to provide safer and more secure workplaces, which are increasingly in demand during the COVID-19 pandemic.

Advanced Automation business

Using AI and IoT, we are developing cloud services to provide safe and efficient remote operations of manufacturing facilities.

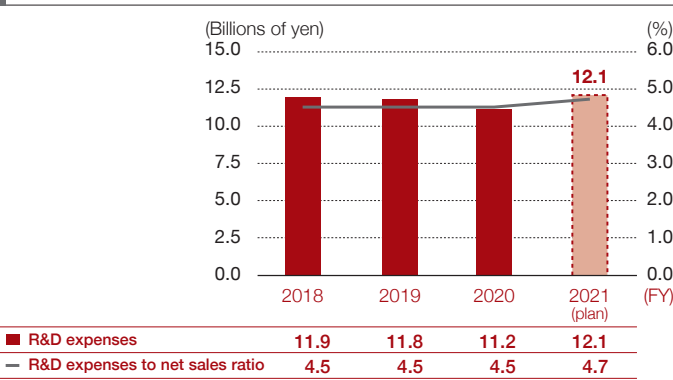
Life Automation business

We are developing new services ranging from labor saving in energy infrastructure maintenance to the collection and use of big data.

KPI for technological and product development

The azbil Group has set out quantitative indicators (KPIs) for technological development and product development, including the patent application counts, the ratio of R&D expenses to net sales, product sales respectively, and the ratio of new products to total product sales. Additionally, by understanding on an annual basis the results of the technologies and products that we have developed, we revise our technological development strategy and product development strategy accordingly.

R&D Expenses, R&D Expenses to Net Sales Ratio



Global development framework

We have a trilateral system of developing technology and products in Japan, the U.S., and Europe. These locations include our research and development center in Silicon Valley and our European companies.

At our U.S. research and development company, we are developing next-generation measurement technology, conducting research on the latest technological innovations, including those related to IoT and international standardization.

In Europe, through cooperation with companies such as Azbil Telstar, S.L.U., we are strengthening our product line for pharmaceutical manufacturing facilities and medical facilities.

R&D Bases



■ Strengthening of calibration capabilities

With “correct measurement” as the starting point, the azbil Group provides safety, comfort, and fulfillment for our customers. To confirm that the sensors and measurement devices that are key to this end goal are functioning correctly, calibration is essential. The Measurement Standards Section at Azbil’s Fujisawa Technology Center is registered as a JCSS Accredited Laboratory for the functions of temperature, humidity, electricity, pressure (vacuum), liquid microflow, and time (frequency). The Calibration Service Center (for gas flow) of Azbil Kimmon and the Calibration Group (for liquid flow) of Azbil Kyoto are also certified as JCSS Accredited Laboratories, maintaining calibration capabilities that are top-class in Japan. We plan to strengthen our calibration capabilities in close coordination with our businesses as part of our efforts to create new business.



Top-class precision vacuum calibration system in Japan

■ azbil Group Calibration Locations

Company	Location	Calibration capacity capabilities
Azbil Corporation	Fujisawa Technology Center Calibration Office	Temperature, humidity, electricity (current, voltage), fluid flow (gas, liquid), pressure (vacuum), time (frequency), length, weight, torque
	Kawara Technology Center Calibration Office	Temperature, humidity, electricity (current, voltage), pressure (vacuum), time (frequency), length, weight, torque
Azbil Kimmon Co., Ltd.	Calibration Service Center	<u>Flow rate (gas)</u>
Azbil Kyoto Co., Ltd.	Calibration Group	<u>Flow rate (liquid)</u>

* Underline indicates JCSS registered business certification.



■ Production technology

We are working to strengthen the production technology for our next-generation MEMS sensors, an area where we have the competitive edge of an unrivaled advanced packaging technology. Through the development of new production lines using smart machines and systems and AI-powered automation, we are developing production including high-mix low-volume production, customized production, and other high value-added types of production to meet our customer needs. At the Group’s mother factory, the Shonan Factory, and at our other production bases, our in-house production lines are working to use IoT to strengthen our global production system through the remote management of production information related to product quality and equipment maintenance.

■ R&D investment

At the Fujisawa Technology Center, the azbil Group’s core research and development hub, which is located in Fujisawa, Kanagawa Prefecture, we plan to build two new laboratory buildings by May 2022 to further strengthen our ability to offer cutting-edge solutions using cloud technology and AI, and our ability to develop high-performance, high-precision MEMS sensors.

By creating cutting-edge R&D facilities to accelerate the development of system solutions and devices for the next stage of growth, and by creating innovative workspaces that facilitate the creation of ideas for new technology and new value, we are improving the efficiency of our research and development in order to further create new value for customers.



Conceptual image of the laboratory building, which is scheduled for completion by the end of May 2022 (images courtesy of Nikken Sekkei Ltd.)

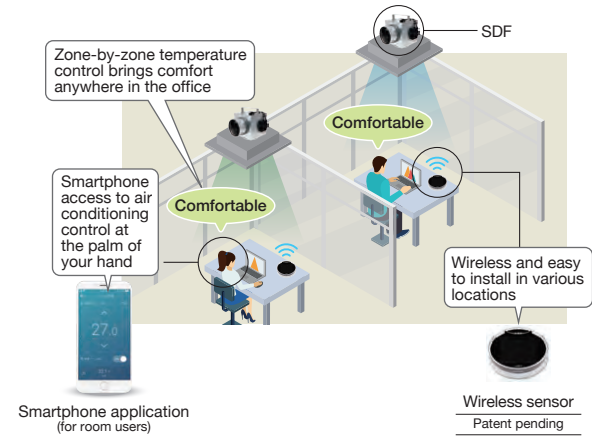
■ Human resource development for R&D personnel

We are focused on training personnel who can create high added value using AI and big data for our services, and using DX for our engineering services (which are the backbone of the azbil Group’s business), and who can achieve the timely market introduction of new products. Specifically, we are working to develop human resources for project management, software development, and electronic circuit and machinery design, and for the overall strengthening of our technological and development capabilities.

Examples of devices and applications for solutions combining the three growth fields

New air-conditioning system for “new-normal” ways of working

This system, which is compatible with more personal work environments and highly convertible layouts, including layouts for infection prevention, provides temperature control in finely divided zones with cells (outlet units). Through the linked operation and individualization of smart damper for diffuser (SDF), air conditioning can be turned on and off by zone, and the temperature can be set with a smartphone. The air conditioning can be adjusted responsively even as persons are nearby are feeling different levels of hot and cold. These air conditioning controls were developed based on know-how gained from experiments performed with volunteers from the company.



Early warning system for time series data

This system is a software package that immediately identifies deviations in monitored values and issues alarms. This system constantly monitors changes in the trends of time-series data for critical measurement values (process variables like temperature, pressure, flow rate, liquid level, etc.). Monitoring that uses the predictive alarm of this system, which makes predictions and activates alarms, affords faster awareness of problems than alarm monitoring using a monitoring and control systems (DCS) that activates an alarm only if the measured value reaches the trigger point for the alarm.

Early Warning System for Time Series Data



Model NX-SVG communications gateway model, providing program-less information sharing between different control devices

In attempts to make production more efficient using IoT, in about 50% of the cases where IoT adoption stalls, the problem is in the device data collection process. Device manufacturers have responded by writing communication programs to match the devices that collect data using a PLC*. However, this involves an immense amount of development processes, and there is a shortage of human resources with the required skills to perform these functions. To resolve this issue, azbil devised the concept of the “multi-vendor IoT gateway (model NX-SVG),” which greatly reduces the development time model.

* PLC (programmable logic controller)

Model NX-SVG



Burner controller

Burner diagnosis information can be easily acquired from models AUR355 and AUR455



Humidity element miniaturization and sensor units

Duct temperature and humidity sensors require regular maintenance to maintain product performance, and there has been a demand to reduce the number of maintenance tasks.

To respond to this demand, we developed a compact humidity element, and modularized the sensor so that the temperature and humidity sensing parts can be swapped out. To compensate for a lower S/N ratio due to miniaturization of the humidity element, we digitalized the measurement signal processing, which also allowed us to resolve issues and make improvements in product design and production management.

Duct Temperature and Humidity Sensor



Manufacturing and Procurement

Aiming to Establish an Optimal Production System to Support Global Business Development

Basic approach

The azbil Group aims to build an optimal production system that supports global business development. In addition to the expected considerations of quality, cost, delivery deadlines, and manufacturing efficiency, we seek production process innovation, expanded production scale, and expanded ratio of overseas production, while also considering the environmental impact of production, the continuing physical and mental health of workers, and the promotion of work style reform.

Improving the global production system

With the expansion of our business globally, we have established three production centers in Japan, China, and Thailand. At each production center, we are strengthening our procurement network, improving our sales and distribution channels for direct sales and shipment to various markets, and working to enhance productivity and expand production volume while lowering costs.

At our Thailand production center, we continue to expand the scale of production with a focus on component products using our newly built second factory, which began operations in 2018. To manufacture field instruments, we plan to enhance our production capacity further with measures that include factory expansion. At our production base in the Chinese city of Dalian, we increased our production capacity of control valves and differential pressure transmitters, and to further expand production volume, we are now building a new

factory scheduled to begin operations in mid-2022. We are simultaneously automating production processes to strengthen our manufacturing platform.

The Group's new main factory

As part of the optimization of our global production system, the new Shonan Factory and our technology R&D facility, the Fujisawa Technology Center, work in close collaboration, functioning together as a mother factory for the Group.

To rise to the challenge of next-generation production, our goal is to achieve a "4M revolution" for the basic elements of manufacturing (man, machine, material, and method), further enhancing the three functions below and the strength of the azbil Group's production.

Create We aim to create and expand competitive advantages in our manufacturing departments that competitors cannot rival, by developing cutting-edge technology with advanced MEMS sensor packaging, and production processes that harness the power of AI and IoT and automatic precision processing.

Demonstrate One of the azbil Group's strengths is the development of highly automated lines that support high-mix low-volume production and other types of customization in which humans and machinery work in harmony. That is where we demonstrate our competitive production capabilities, which are both flexible and powerful.

Lead The role of our Shonan Factory is to lead the entire azbil Group in production, distribution, and procurement, and

to promote standardization in the Group's factories worldwide. Moreover, the factory systematically trains personnel in the production and management technology used in Japan and overseas, and which forms the foundation of those efforts. Training focuses on developing personnel who can manage production in a global context.

BCP for manufacturing and procurement

There is no shortage of production and logistical risks, domestic and foreign, including damage from natural disasters or other unexpected situations such as the COVID-19 pandemic. To minimize the impact of emergencies on our customers, we do the following with the aim of restoring production within an optimal time frame.

- Production line BCP: planning for restart of production lines
- Product BCP: planning for alternate acquisition of parts and for maintaining inventory
- Countermeasures for activity restrictions in the capital area: securing alternate factory production and logistical capacity

We also continue to implement preventive maintenance for natural disasters such as earthquakes and floods, etc., install seismic countermeasures and employee safety measures, and increase office and factory disaster prevention capabilities.

Contributing to a sustainable society and corporate growth

The azbil Group has announced SDG goals and is strengthening efforts in the area of manufacturing to contribute to a sustainable society and to grow continuously as a company.

We are improving energy efficiency using IT, AI, and other technologies. With regard to products, we are employing energy-saving design to reduce the amount of material used, make greater use of reusable materials, and reduce the number of parts used. Furthermore, to fulfill our responsibilities for the supply chain, we cooperate with our business partners on achieving the SDGs as a shared goal that will help to realize a sustainable society. We continue to work on the optimization of our global production framework, providing high-quality advanced technologies, products, and services worldwide in a timely manner. In so doing, we strive to meet the various needs of our customers and contribute to a sustainable society and sustainable business operations (Reference: Essential goal III: Supply Chain, Social Responsibility on page 63).

Innovative production processes

The azbil Group aims to innovate its production processes and to construct competitive production lines through improved production technology.

Specifically, we promote the development and application of production line technology that allows us to create products few other companies can. We pursue unique and highly advanced manufacturing processes such as the connection, bonding, and assembly of micro parts and other precision processes exemplified by our MEMS sensor assembly,

bly, which utilizes new materials and the use of innovative material processing techniques.

In addition, to improve manufacturing process efficiency and quality, we are systematically moving toward further automation and systemization of processes based on the azbil Group's own HCA-MS*1 concept. By combining the latest in AI and IoT technology with the precise assembly, product processing, and image processing know-how of the azbil Group, we are working towards an advanced level of automation by mechanizing processes that were once difficult to automate, such as those that required the skill and experience of workers, and by automating inspection processes that once needed a certain level of experience and judgment.

We are working to expand the scope of application of these initiatives from our mother factory to production sites in Japan and overseas, to maintain and improve quality globally, and to strengthen our competitiveness.

Example of Flame Detector Glass Assembly Process

Flame detector

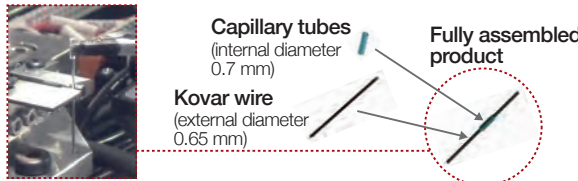


We succeeded in automating the assembly of easily breakable miniature glass capillaries with zero losses by using force-control (active compliance) technology*2 that we developed for every part of the process.

Glass capillary tube assembly device



Through the use of our image recognition and force-control technology, we can pick up randomly scattered glass capillaries one by one.

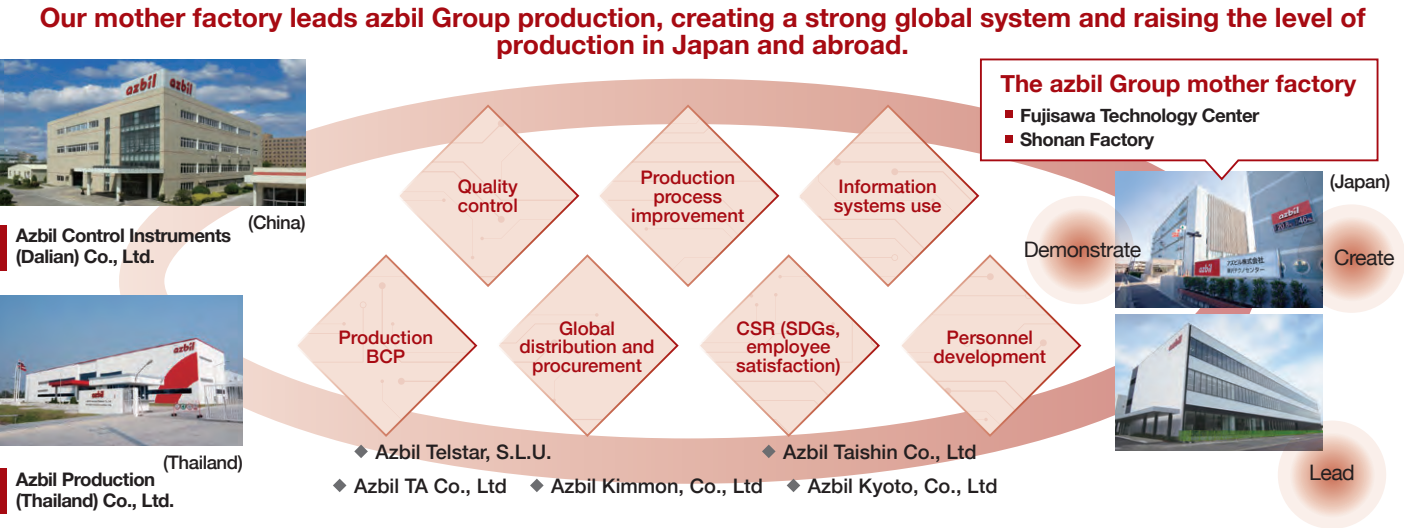


A Kovar wire with a 0.65 mm external diameter is inserted into a glass capillary with a 0.7 mm internal diameter. The gap between the two is only 0.05 mm. This technique is made possible by azbil's force-control technology, which does not shock or put a load on the easily breakable glass capillaries.

*1 Human-centered automation for manufacturing systems (HCA-MS) are systems that realize the Group philosophy to aim for human-centered automation. Such a system mechanizes human capabilities such as kinesthetic sense, eyesight, and intelligence, combining the accuracy of machinery with the flexibility of human beings, and automating processes that were difficult to automate using previous technology. Functionality is modular, allowing reuse and flexible response to production facility expansion or other changes.

*2 With force-control (active compliance) technology, when a robot grasps an object, the amount of force placed on the object is measured, and the measurement is used to control the drive motor for the grip. The assembly of fragile glass capillaries is achieved by combining force control with positional control.

azbil Group's Production System



Sales, Engineering, Installation, and Service

Maximization of Life-cycle Value through an Integrated System that Covers Sales, Engineering, Installation, and Service

■ Providing total solutions worldwide

In order to maximize life-cycle value in our customers' buildings, factories, and plants, the azbil Group has a uniquely integrated framework that allows us to offer total solutions incorporating everything from consulting and sales proposals to engineering, installation, and services. Our sales engineers, systems engineers, field engineers, and service engineers work around the world to provide optimized solutions tailored to each site in order to meet the different requirements at various stages of the life cycle: planning, operation, maintenance, improvement, and refurbishing.

■ Sales, engineering, and installation

We work in an integrated framework to share the various needs and problems faced by our customers in their buildings, plants, and factories, from analysis of problems and proposal of solutions, to system design and actual onsite installation and adjustment.

Building Automation (BA)

In the air conditioning control systems in buildings handled by our BA business, there are differing challenges depending on the nature of the facility (offices, etc.) and the regional characteristics. Based on its know-how and actual operating data accumulated over many years, the azbil Group can recommend optimal products ranging from BA systems to energy-saving solutions, depending on the use of the facility and the type of operations. In addition, we provide onsite engineering and manage the safety, quality, and cost of our installations, providing the level of control that our customers request.

Advanced Automation (AA)

Customers at the manufacturing sites handled by our AA business also have a wide range of requests, which change greatly in line with evolving technology, such as IoT. We constantly work together with our customers to pursue solutions, ranging from creating systems for factories and plants to improving manufacturing processes, providing energy-saving solutions, and proposing optimal products and applications.

Life Automation (LA)

Life science engineering is one component of our LA business. We provide the equipment used to produce vaccines and other pharmaceutical products. To ensure the safety of these products, there are technologically complex and highly distinct requirements for the manufacturing equipment and services, which must also comply with very strict legal regulations in their design and fabrication. We use our deep knowledge in this area to propose optimal solutions that satisfy both our customers and the legal requirements.

■ Maintenance service
Boosting QCDSE using DX and HR

Our service engineers are specialists in the equipment and systems used in buildings, plants, factories, and other facilities. They provide optimized operation, regular inspections, and maintenance services, and they respond quickly in the event of an urgent problem. Additionally, they make sure to promptly share feedback from customers with the Group. By incorporating customer feedback into our products and services we are able to raise the value and efficiency of our onsite operations.

Also, we are transitioning from conventional labor-intensive services to knowledge-intensive services centered on solutions proposals based on our wealth of data and proven results. We are also working to improve systems and personnel training overseas in order to offer the same services globally that we offer in Japan.

Through our DX-powered platform for providing engineering and services and our highly experienced and skilled human resources, we help our customers to achieve their targets for quality, cost, delivery, safety, and environment (QCDSE).

Global expansion of the life-cycle solutions business

In our BA business, we are enhancing the remote maintenance technology that allows us to remotely monitor buildings overseas and to provide efficient maintenance services with high added value. In our AA business, we are expanding our Asian service area, including China, Thailand, Singapore, and Indonesia, by developing a comprehensive solutions-oriented valve business encompassing everything from the supply of control valve products to maintenance services. In addition to IoT-based services that use big data and AI, such as monitoring for anomalies and predicting future conditions, we provide added-value solutions services globally as we work to expand our life-cycle solutions business.

Improving service productivity and added value through DX

Based on the unique advanced technology and abundant know-how acquired by its control and management professionals, the azbil Group is working to create tools for its service operations. In addition to making site inspections more efficient, these tools allow us to more effectively maintain automated control devices by remotely collecting data and analyzing "event" outputs, and by having offsite experts examine control operations. Additional-

ly, through the collection and analysis of equipment self-diagnostic information, we can proactively propose preventive maintenance services that ensure system reliability.

While helping to solve a broad range of problems for customers by increasing the added value of these services, we are also transitioning to knowledge-intensive services through the sale of new products and services.

Human resource development to support global services

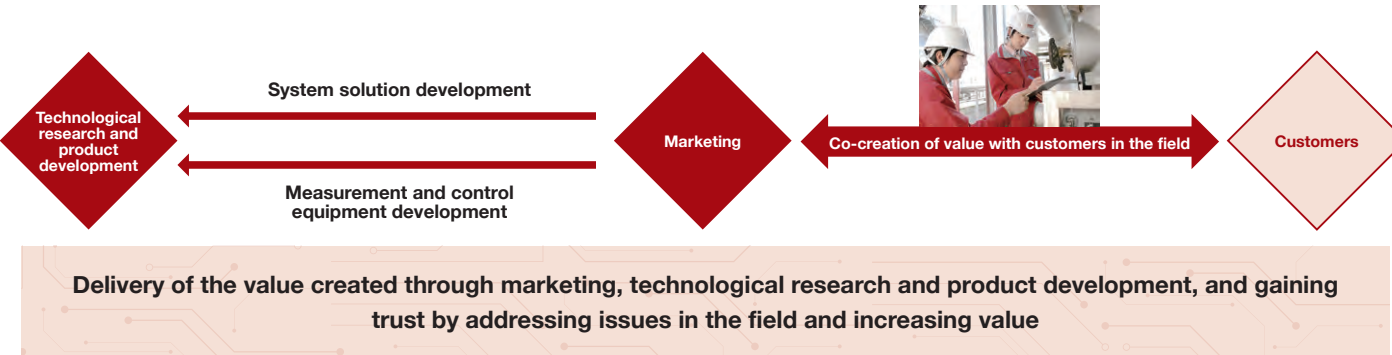
To support our global service business in adapting to the conditions of each country and to develop engineers who can propose added value to customers, we have established a systematic program to train measurement, control, and maintenance specialists and data scientists both in Japan and overseas.

Putting safety first in the maintenance of important facilities

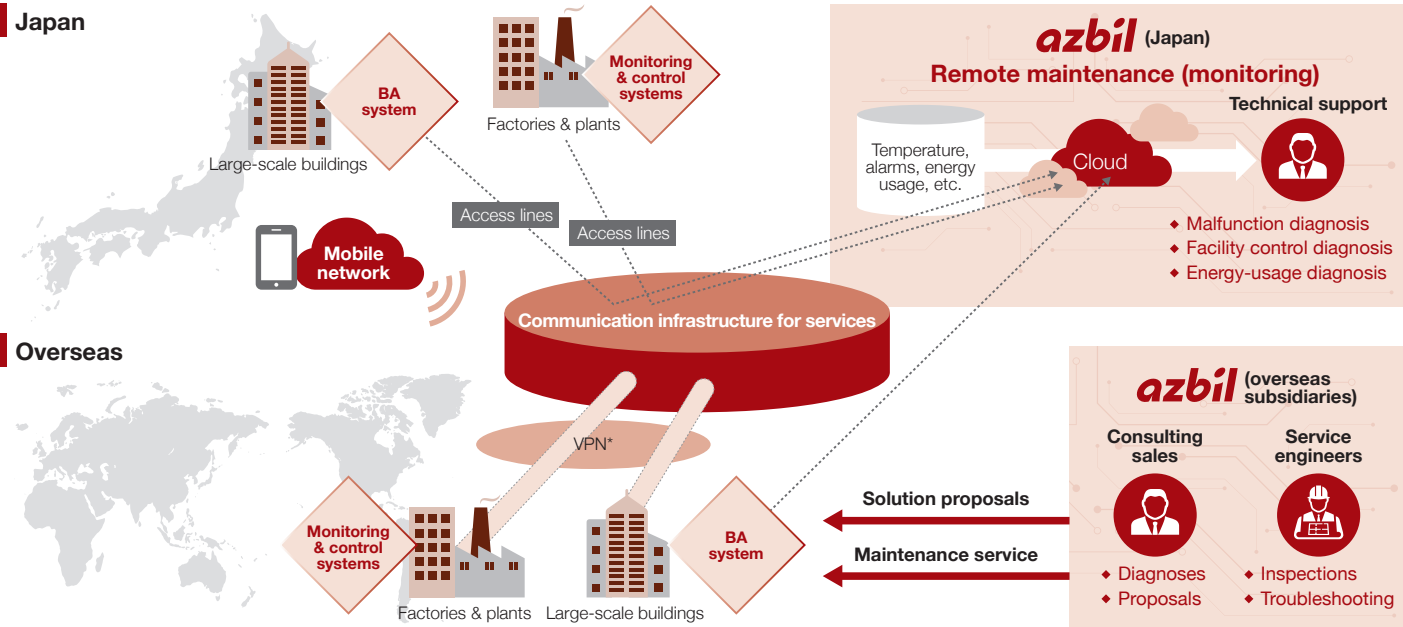
In its operations and maintenance work at hospitals and other facilities of importance for society and for customers, the azbil Group places top priority on employee and customer safety, and implements thorough safety measures to ensure the continuity of operations. Group personnel maintain air conditioning systems in hospitals where staff are working hard every day to save the lives of those affected by COVID-19. To ensure the safety of the hospital personnel and prevent the spread of infections within hospitals, we pay the utmost attention to our system of risk-level management* as we implement various measures in close communication with the hospital staff. Our onsite staff has a strong sense of mission in maintaining equipment and the indoor environment to allow the medical professionals to focus on treatment and to ensure the peace of mind of both COVID-19 patients and general patients.

* We define five stages of risk, and work to prevent infection and manage workflow at each risk level to ensure the safety of our employees and prevent the spread of infection.

The azbil Group Service Business



Remote Maintenance Service Platform (Examples of Use in Our BA and AA Businesses)



* Virtual organizational networks, which communication with distant locations makes possible as if it were within the company's own network