



Azbil Corporation

Yamatake Corporation changed its name to Azbil Corporation on April 1, 2012.

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[www.azbil.com/](http://www.azbil.com/)



## azbil Group Profile



The azbil Group promotes environment-friendly initiatives.

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## Bringing Everyone Happiness and Fulfillment through Automation

Since its founding in 1906, the azbil Group has concentrated on automation technology. The company founder's idea was to "free people from drudgery." Based on that idea, the azbil Group's technology has brought safety, comfort, and fulfillment to buildings, factories, and families, and has contributed to preserving the environment. The azbil Group is responding to the demands of the times, meeting customer needs, and grappling with society's problems as it continues to refine its technologies and products.



### History 1

**Driving the development of Japanese industry with an entrepreneurial spirit that seeks to "free people from drudgery"**

In 1906, Takehiko Yamaguchi, the company's founder, established "Yamatake Shokai Co., Ltd.," a machine tool import trading company out of a desire to "free the Japanese worker from drudgery." The history of the azbil Group started from here.

From that time, Yamatake expanded the products it offered, from machine tools to industrial instruments.

In the 1950s, the company sold air conditioning control systems, microswitches, and other products. Although Yamatake had only imported and sold products up to that point, it began to focus on domestic production of equipment that it developed in Japan.

Yamatake understood the importance of automation and was swift to commercialize products. Thanks to those products, the quality and scale of Japanese industry grew from the postwar reconstruction period through the high-growth period.

#### Closeup Growing together with Honeywell Inc.

Yamatake took on the challenge of creating new value through automation. Its important partner was the U.S. firm Honeywell Inc. At that time, Honeywell possessed the world's most advanced measurement and control technology.

In 1953, Yamatake formed a 50-50 capital alliance with Honeywell. In 1956, Yamatake changed its name to Yamatake-Honeywell Keiki Co., Ltd. Together, Yamatake and Honeywell created an era, the era of industrial automation in Japan.



### History 2

**Creating value for the new era while protecting the environment under the "Savemation" concept**

During the period of high economic growth in Japan, Yamatake-Honeywell helped industry to develop with air conditioning control technology for large buildings and process control technology for petrochemical plants. It earned customers' trust as a comprehensive automation manufacturer. At the same time, through these achievements, Yamatake-Honeywell continued to grow. However, the first oil crisis in 1973 caused Japan's economic growth to stop.

Because energy saving had become a priority in Japan, the corporate philosophy of "Savemation"\* was established, and was also beneficial for the environment. The company's clearly expressed wish was to "create unprecedented energy-efficiency and other value" and "to contribute to society through new products and services." This approach was highly acclaimed by Japan's industrial community at the time.

\*Save + Automation = "Savemation"

### History 3

**With the goal of unending industrial progress and a continuing life of abundance, we follow a philosophy of "human-centered automation" as we continue to develop the company's businesses.**

In 2006, our 100th anniversary, the azbil Group introduced a new Group philosophy of "human-centered automation."

This expresses the company's decision to provide safety, comfort, and fulfillment for people in offices, factories, and homes, and to help to preserve the environment. We intend to achieve this vision by using our expertise in advanced measurement and control technology and our energy management know-how developed over many years.

The azbil Group is taking its founding spirit to a new level. For more than a century, we have continued to take on the challenge of creating new value.



## Innovating with Advanced Technology and Know-how to Create an Exciting Future

The azbil Group always strives to understand the needs of the customer and of society. We continue to reach for new horizons with state-of-the-art technology in order to build a society where people and automation co-create the future. Our control technology is evolving from analog to digital, and now incorporates the IoT and AI.

### Closeup Training engineers for excellence in the theory and application of IoT and AI technology

In the coming era, the ability to use IoT and AI technology will be commonplace. With that in mind, we have implemented a software engineer development program to train engineers to play an active role in that future. The program covers the latest research topics and case studies that apply new technology to real-world business. The azbil Group is reinforcing its knowledge and technological capabilities so that it can continue to provide customers with high-performance software and advanced engineering and services.



### Solution 1 Using state-of-the-art measurement and control technologies to create new solutions

The advent of new technology in areas like the Internet of Things (IoT) and artificial intelligence (AI) is changing many types of products, including systems, applications, networks, controllers, sensors, and other devices. The azbil Group focuses on develop-

ing core technology in two areas, equipment and applications. Our equipment is used for measuring various factors in buildings, factories, and plants, and our applications add value to the information gathered by the equipment. We have gained new knowledge and experience in AI applications, networks, and system architecture. Using that knowledge, we are efficiently transforming the workplaces of our customers and boosting their growth.

### Solution 2 Leveraging the advantages of our measurement technology, we are expanding in the area of MEMS sensors.

Measurement devices, the azbil Group's main stay products, contain sensors developed in-house. These sensors, which are a type of microelectromechanical system (MEMS), detect pressure, flow rate, and humidity. MEMS sensors are vital for making competitive products. It is important that the Group continue to improve the performance of MEMS

sensors and continue to produce and provide them for customers. By increasing MEMS sensor performance, the azbil Group enables measurement on the micro ( $\mu$ ) and even smaller scale. Additionally, we are researching principles of measurement in a new way and developing equipment using materials never seen before. In this way, we are developing and increasing the value of our products, as well as developing new areas of business as we put our research to practical use.

### Solution 3 Taking advantage of our expertise in control technology, we are expanding in the area of actuators.

The azbil Group considers smart actuator technology to be one of the most important technologies for its business, and it is working on systems and products related to this technology. For example, the Group is now developing next-generation smart robots. Using a technology for force control, these robots are capable of fluid and graceful movement. In addition, they

possess an "explore and contour tracking" function that enables them to perform detailed work even without specific human instruction (i.e., programming). These are truly robots that move in step with human coworkers. The Group is also researching fluid control technology for control valve and variable air flow control applications, for example. With the application of control technology, the azbil Group is developing equipment that operates with greater sensitivity and safety, and is helping to create a society where people and machines collaborate.



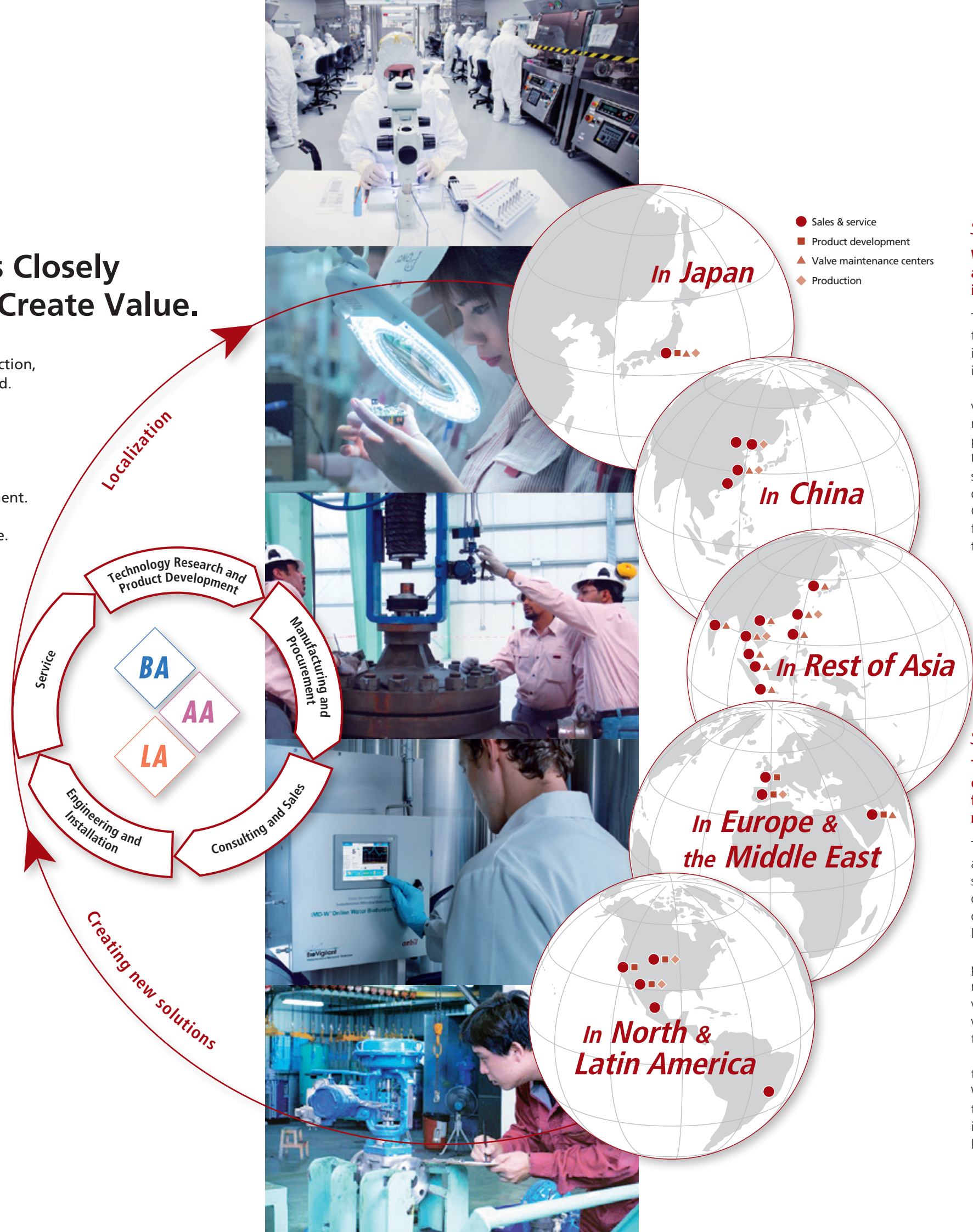
# How We'll Get There

## Around the World, the azbil Group Works Closely with Its Customers to Create Value.

The azbil Group has created development, production, and service systems in various regions of the world. But whatever the region, and no matter how the times change, we remain focused on our corporate philosophy of creating safety, comfort, and fulfillment through automation, and contributing to preservation of the environment. Nevertheless, the needs of our customers change according to climate, customs, and culture. The azbil Group believes that it is important to respond to those needs in a careful and conscientious manner in order to meet the customer's needs.

### Closeup Developing global leaders

The azbil Group is expanding its business in countries outside Japan. To that end, it is focusing on developing leaders who can operate on the international stage. These leaders must understand the philosophy, history, technology, products, finances, and corporate social responsibility of the azbil Group. It is also important that they acquire advanced communication skills, a sense of fairness, persistence, and logical thinking.



### Scene 1

**We develop and produce equipment and solutions in every part of the world, in line with the needs of the region.**

The azbil Group, together with its partners around the world, is building a supply chain that will enable it to address the challenges faced by customers in a thoughtful and considerate manner.

The Group believes it is important to meet the varying needs of customers in each country and region and therefore has created research and product development systems in Japan, the United States, and Europe. It is also building a supply system comprising production sites and distribution networks that extend from Japan, China, and Thailand, and across the globe to flexibly respond to increasingly higher production loads.

### Scene 2

**The azbil Group is a worldwide provider of top-class comprehensive services, from consulting to sales, maintenance, and repair.**

To maintain and increase the value of buildings and factories, owners and management need to set appropriate management policies and operate facilities in an optimal way in line with changes in the business environment and facility life cycles.

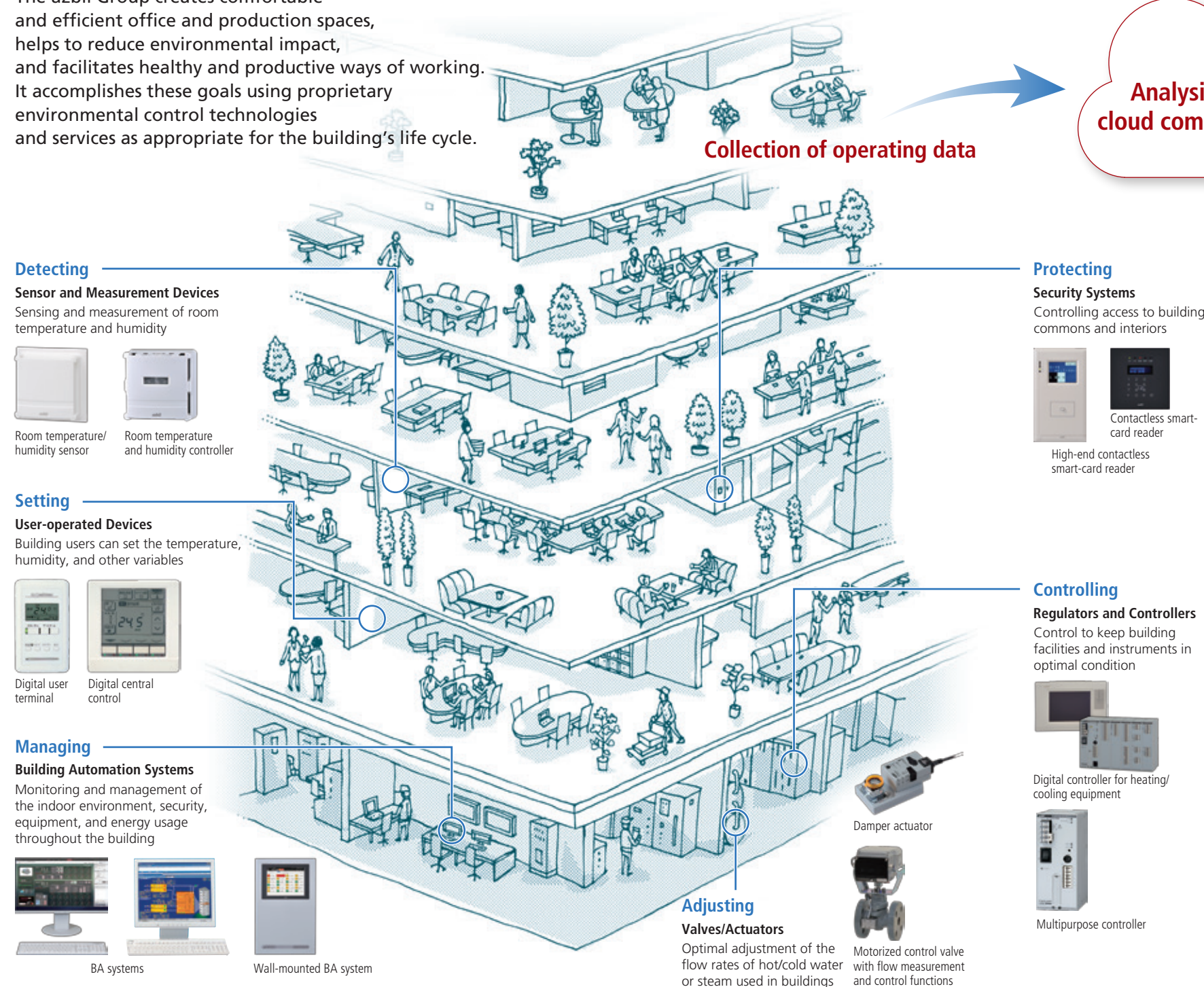
The azbil Group seeks to be a good long-term partner for its customers and society. With that in mind, the Group takes responsibility for the entire value chain. That means that it performs all the work of consulting and sales, engineering, installation, and maintenance internally.

Our service-providing network is spreading throughout Japan and into overseas markets. We strive to maximize the value of facilities throughout their life cycle, and are developing new equipment and solutions based on know-how acquired around the world.



# BA Building Automation Business

The azbil Group creates comfortable and efficient office and production spaces, helps to reduce environmental impact, and facilitates healthy and productive ways of working. It accomplishes these goals using proprietary environmental control technologies and services as appropriate for the building's life cycle.



Analysis utilizing cloud computing and AI

## Where to Find Our Solutions

- Office buildings
- Shopping centers
- Schools
- Factories
- Airports, etc.
- Hotels
- Hospitals
- Research laboratories
- Data centers

We provide life-cycle appropriate services by combining building automation with new areas of technology like the IoT.

## Total Energy Management Service

We efficiently manage the energy use of buildings, helping our customers to reduce their energy consumption. To that end, we update and improve various types of facility at the proper time, and we operate an energy service business for the improvement of building energy use.



## Comprehensive Building Management Service

We handle building operation and management through remote monitoring on a 24-7-365 basis, helping to create comfortable building environments and more efficient building management.



## Cloud Services for Buildings

We leverage IoT technology to increase the efficiency of the energy and facility management of buildings. This reduces management costs and provides a comfortable indoor environment.



## Total Building Automation System Maintenance

Through remote data collection and analysis, we provide reliable building and facility operation and reduce operational costs through preventive maintenance.



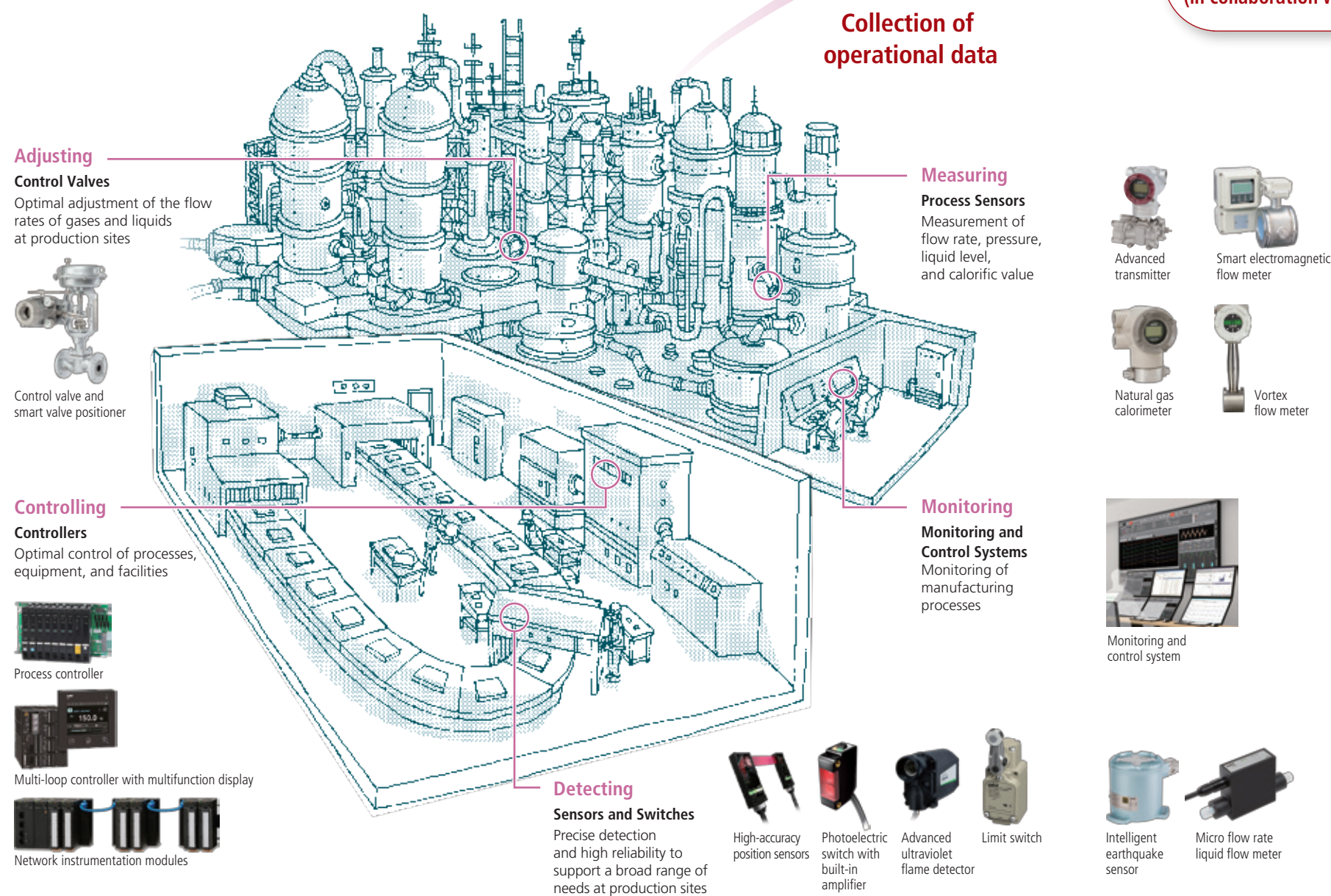
We develop and produce building automation systems, automatic control instruments, and applications that facilitate building management.

We develop new products and services by leveraging the expertise and know-how gained at worksites.



# AA Advanced Automation Business

The azbil Group provides products and solutions, instrumentation, engineering, and maintenance services to achieve optimal equipment and facility operation and solve problems at manufacturing sites.  
By applying the technology of the IoT, AI, and big data, we assist in energy conservation and stable and safe production.



We are raising productivity and quality and supporting reliable operation at production sites by utilizing big data and AI.

## Anomaly Monitoring, Problem Prediction, and Operation Optimization Systems

We assist our customers to have safer and more reliable operation and to optimize their operational planning. Using operational data, we constantly monitor to detect anomalies and predict problems.

## Control Valve Maintenance Support System

We are developing a smart valve positioner equipped with a high-performance sensor. This system is designed for online trend monitoring of diagnostic parameters for Azbil's smart valve positioners during plant operation. It detects irregularities in control valves and positioners at an early stage to minimize problems, thereby facilitating efficient maintenance of control valves.

## Energy Management Solutions

Energy use at production sites includes air, steam, cold water, hot water, electricity, and gas, among others. For each type, we can optimize energy utilization and management. To assist with management, we make invisible energy use visible. We also help our customers to comply with complex regulations.

## Control System Security

A control system's continuous availability is vital. We provide cyber security measures for control systems.

We develop and produce measurement and control equipment, monitoring and control systems, and applications in order to solve problems at worksites.

We are developing new technologies, products, and applications by leveraging the expertise and know-how gained at worksites.



# LA Life Automation Business

The azbil Group provides automation technology to respond to people's needs in everyday life, including the problems faced by an aging population, environmental issues, safety, security, and the need to lead an abundant and comfortable life. We work to ensure safety, comfort, and energy-efficiency in a wide range of fields: essential services such as gas and water, living spaces made comfortable by home air conditioning systems, human health, pharmaceuticals, and health care.

## Life Science Engineering

► Azbil Telstar, S.L.U.

Azbil Telstar, S.L.U. provides lyophilizers, sterilizers, and clean environment equipment for pharmaceutical plants and research laboratories. It has built an integrated system for development, engineering, installation, sales, and after-sales service. It also conducts R&D to improve safety and product quality in pharmaceutical manufacturing processes.

## Pharmaceutical Manufacturing Equipment



Barrier systems

Lyophilizer

## Gas and Water Meters

► Azbil Kimmon Co., Ltd.

Azbil Kimmon Co., Ltd., provides city gas meters, LP gas meters, and water meters for homes, as well as products for industry, including safety equipment (alarm equipment, automatic shutoff valves) and regulators.

Our products are compatible with a wide range of transmission methods, including low power wide area (LPWA) networks, in order to facilitate the construction of essential services in the IoT age.

## Meter Data Cloud Service

Leveraging IoT technology, we use cloud computing to manage the information about each meter and to provide customers with the needed data.

## Water Meter



Battery-operated electromagnetic water meter

LPWA-capable electronic water meter

## Gas Meter



City gas  
Intelligent city  
gas meters

Ultrasonic  
gas meters

LP gas  
LPWA-capable  
intelligent  
LP gas meters

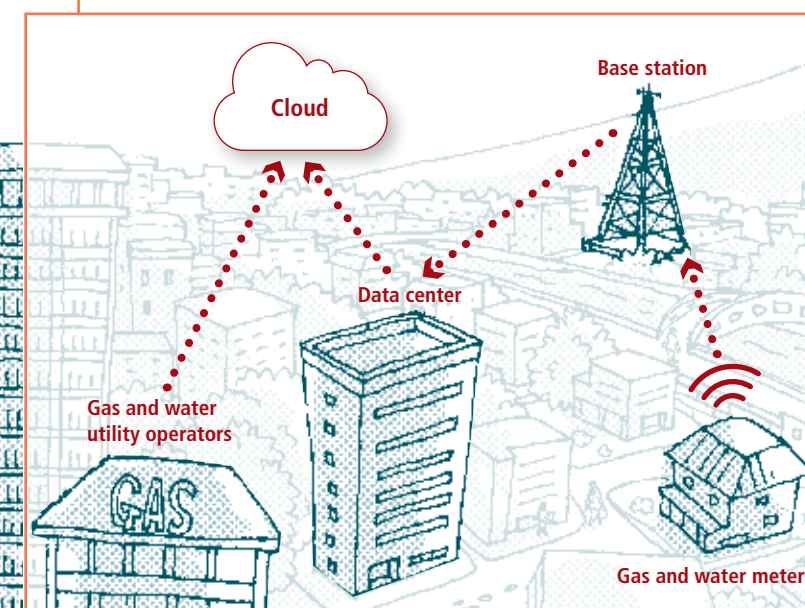
Ultrasonic  
gas meters

## Residential Central Air-conditioning Systems

► Azbil Corporation

Azbil Corporation provides central air-conditioning systems that ensure comfort throughout the entire home. A single air-conditioning system provides cooling, heating, ventilation, air purification, and dehumidification for your home. We create a comfortable environment in each room, automatically controlling the airflow and temperature separately for each room while also saving energy. This is achieved by applying our building air-conditioning technology.

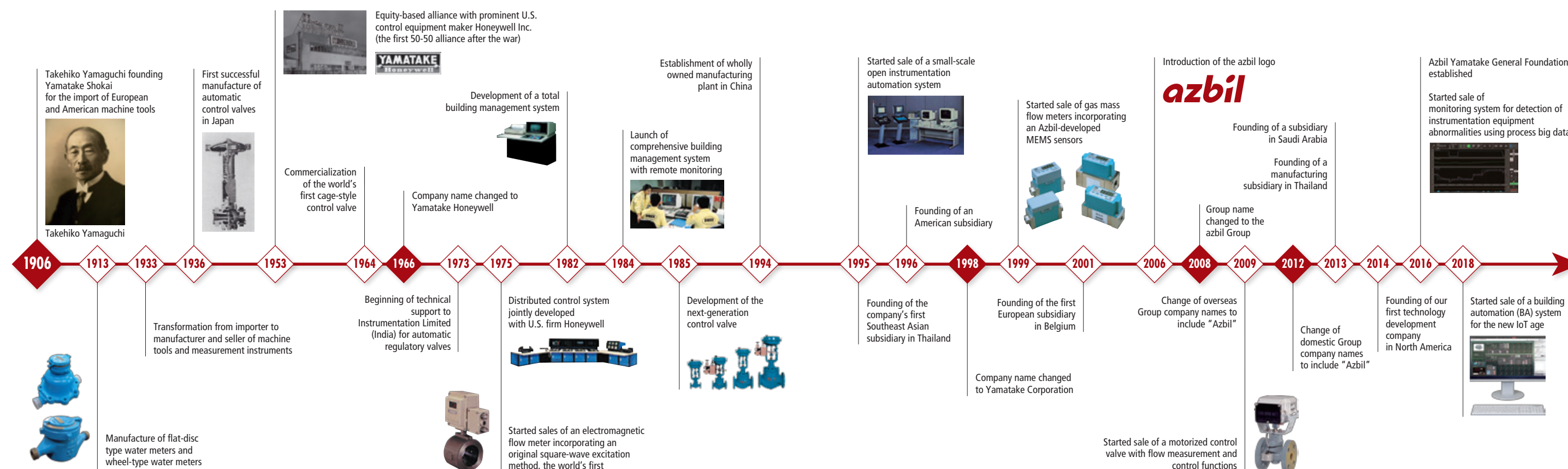
## Central Air Conditioning System (Conceptual Diagram)



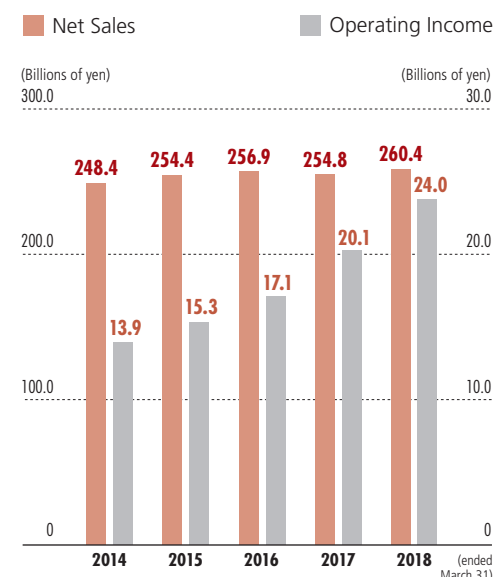
## Our Profile | Company Data

The azbil Group operates under the philosophy of “human-centered automation” and implements company management on that basis and with a focus on corporate social responsibility. The Group also bases its conduct of business on the sustainable development goals (SDGs) adopted by the United Nations.

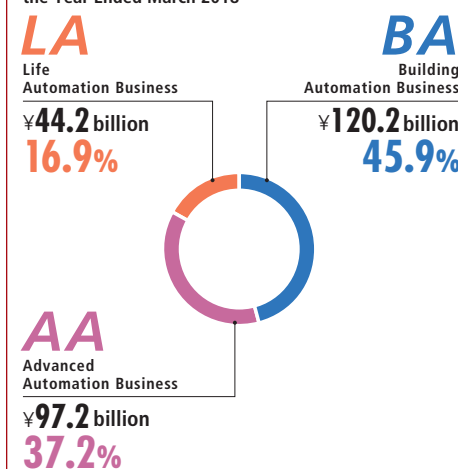
We proactively contribute to the preservation of the Earth’s environment and to the development of society’s economy. Through automation, we hope to increase happiness and satisfaction at an individual and societal level.



## Net Sales and Operating Income



Share of Net Sales by Segment for the Year Ended March 2018



## Company Data

### Azbil Corporation

**Founded**  
December 1, 1906

**Incorporated**  
August 22, 1949

**Paid-in Capital**  
¥10,522,716,817

**Employees**  
5,043  
9,328 (in consolidated companies)

As of March 31, 2018

### azbil Group in Japan

Azbil Corporation  
Azbil Trading Co., Ltd.  
Azbil Yamatake Friendly Co., Ltd.

### azbil Group Overseas

#### Asia Pacific

Azbil Korea Co., Ltd.  
Azbil Taiwan Co., Ltd.  
Azbil Kimmon Technology Corporation  
Azbil Vietnam Co., Ltd.  
Azbil India Private Limited  
Azbil (Thailand) Co., Ltd.  
Azbil Production (Thailand) Co., Ltd.  
Azbil Philippines Corporation  
Azbil Malaysia Sdn. Bhd.  
Azbil Singapore Pte. Ltd.  
PT. Azbil Berca Indonesia

Azbil SecurityFriday Co., Ltd.  
Azbil Kimmon Co., Ltd.  
Azbil Kyoto Co., Ltd.

Azbil Control Instruments (Dalian) Co., Ltd.  
Azbil Information Technology Center (Dalian) Co., Ltd.  
Yamatake Environmental Control Technology (Beijing) Co., Ltd.  
CECEP Building Energy Management Co., Ltd.  
Azbil Control Solutions (Shanghai) Co., Ltd.  
Shanghai Azbil Automation Co., Ltd.  
Yamatake Automation Products (Shanghai) Co., Ltd.  
Azbil Hong Kong Limited

Azbil TA Co., Ltd.  
Azbil Taishin Co., Ltd.  
Tem-Tech Lab.

#### North America

Azbil North America Research and Development, Inc.  
Azbil North America, Inc.

Azbil VorTek, LLC

#### Central America/Latin America

Azbil Mexico, S. de R.L. de C.V.  
Azbil Brazil Limited

#### Europe

Azbil Europe NV  
Azbil Telstar, S.L.U.

#### Middle East

Azbil Saudi Limited

As of July 2018

Handling of products and services described in this azbil Group Profile may differ by country or region.