

Leaders' Message

Through the pursuit of “human-centered automation” co-created by human ingenuity and technology, we aspire to be a corporate organization that helps resolve issues faced by customers.



Group Philosophy

To realize safety, comfort, and fulfillment in people's lives and contribute to global environmental preservation through "human-centered automation."

To achieve our philosophy,

- We create value together with customers at their site.
- We pursue our unique value based on the idea of "human-centered."
- We think towards the future and act progressively.

Since our establishment in 1906, we have pursued measurement and control technologies, delivering unique solutions to our customers. In April 2012, we changed the company name from Yamatake to Azbil, making the azbil brand familiar to many people. Today, the azbil Group provides unique levels of customer-oriented value in offices, production sites, and daily life all over the world through its three business segments: Building Automation, Advanced Automation, and Life Automation.

The current year ending March 2019 is a halfway point in the three-year medium-term plan that started last year. To achieve the objectives of this plan, we are pursuing three fundamental policies: (1) Being a long-term partner for the customer and the community by offering solutions based on our technologies and products; (2) Taking global operations to the next level by expanding into new regions and a qualitative change of focus; and (3) Being a corporate organization that never stops learning, so that we can continuously grow stronger. We will strengthen the life-cycle solutions business globally while also developing new automation fields and expanding environmental and energy fields, in order to enable sustained growth.

Going forward, the azbil Group will continue forging ahead as a unified corporate group able to help solve various issues by creating new levels of value in partnership with customers at their sites, through the pursuit of "human-centered automation" that liberates people from drudgery and provides them with happiness brimming with joy and fulfillment.

July 2018



Hirozumi Sone
President and Chief Executive Officer
Azbil Corporation

azbil is here too

The azbil Group is creating a better future for individuals and society through human-centered automation.

What do you think of when you hear the word “automation”? Perhaps you think you know, but there are some concepts you don’t quite understand. Automation is used to “measure” various factors, such as temperature and pressure, in order to “control” the factors into a desired state. We at the azbil Group apply these automation technologies to office buildings, plants/factories, and people’s lives in our quest to support the advancement of industry and daily living.

Automation Technologies (Measurement & Control)

We take detailed measurements of factors related to air conditioning—such as temperature, humidity, and CO₂ concentration—and control facilities and equipment in a manner that delivers comfort and energy savings. We have deployed communication technologies in our comprehensive building management services since the 1980s, and nowadays we provide wide-ranging cloud-based services, including energy management. We are also promoting advanced measures to ensure stable supply of electricity throughout entire communities via remote automatic control.



BUILDING
AUTOMATION

In Office Buildings

In large-scale buildings, the azbil Group’s air-conditioning control technologies are used to make the air temperature of the entire buildings comfortable and also deliver energy savings.

● In Plants and Factories

Measurement and control technologies are indispensable for various manufacturing sites, and many customers use products and solutions offered by the azbil Group.

ADVANCED AUTOMATION



Various technological innovations are making inroads into manufacturing sites. As a pioneer in automation, the azbil Group supports advanced manufacturing that addresses the need for reliable, safe operations of plants and factories and technological innovations. For example, we have systems that use highly functional sensors to grasp and diagnose the status of numerous equipment online, as well as systems that use big data and AI to check the existence of abnormalities.

● In Our Lives

The azbil Group's automation technologies are active in an increasingly broad range of areas, including gas and water meters, pharmaceutical manufacturing, and central air conditioning for detached houses.

LIFE AUTOMATION



Technological innovations are also increasingly used in automation related to our daily lives, for example in the gas and water meters of numerous households. Here, each meter is fitted with a communications function that transmits data wirelessly to our data center. This enables the data center to monitor the amount of LP gas remaining in the tanks and ensure that such tanks are exchanged or refilled efficiently. The azbil Group will further promote smarter society and living.

azbil's History of Value Creation

In its pursuit of automation, azbil will deploy worldwide the sustainable value creation that it has achieved over more than a century.

Since our founding in 1906, we have delivered value by embracing challenges in multiple areas. Here, we have deployed our leading-edge automation technologies and know-how accumulated on site. We will continue pursuing automation as we aim to grow and develop as a partner for customers and communities.

1906-1950s

“Freeing People from Drudgery”

Beginning of Industrial Society

From Imports to Domestic Manufacture

Founded in 1906 as Yamatake Shokai. Started importing and selling machine tools from Germany, then became a manufacturer and seller of industrial machinery and instruments of Brown Instrument Company (later Honeywell) in the United States. Expanded production of industrial instruments in line with development of the Japanese materials industry, contributing to the restoration of Japan and the advancement of its heavy industry after the war.

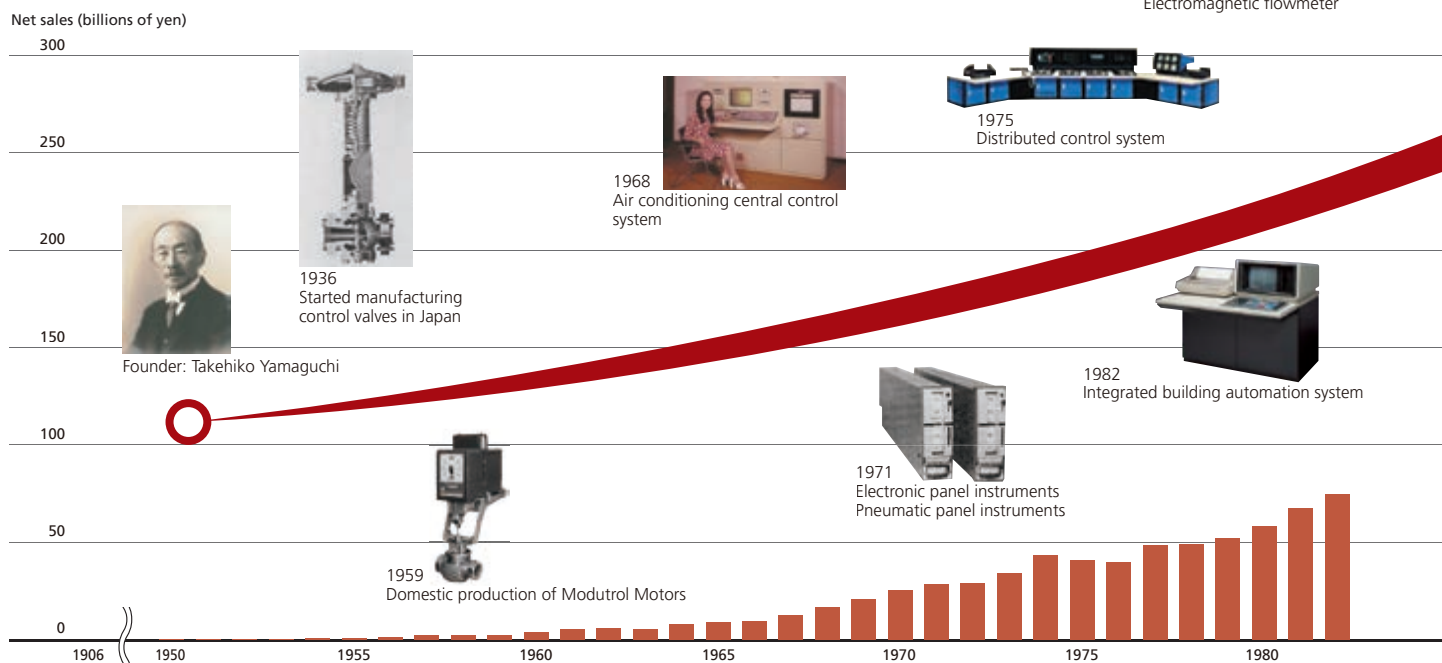
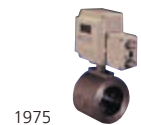
1950s-1970s

“First in Control”

The Dawn of the Automation Era

Contribution to Rapid Economic Growth

Formed technical license agreement with Honeywell in the United States in 1952, introducing that company's air-conditioning control technologies, combustion safety control technologies, microswitches, and the like to Japan, and subsequently evolving into a comprehensive automation equipment maker. Spread innovative compact electric instruments based on proprietary technologies, as well as central monitoring systems compatible with large-scale buildings.



Advanced Automation (AA) Business

Building Automation (BA) Business

- Notes:
1. As the company had adopted the settlement twice a year before FY1974, the graph shows the total amount of two accounting periods.
 2. From FY1948 to FY1993, the financial statements were prepared for the year ended September 30. Since FY1994, they have been prepared for the year ended March 31.
 3. As the company changed the fiscal year, FY1994 had irregular closing.
 4. The financial statements were prepared on an unconsolidated basis until FY1993. Since FY1994, they have been prepared on a consolidated basis.

1970s-2000s

“Savemation”

The Shift from Analogue to Digital Instrumentation

Contribution to Higher Performance,
Accuracy, and Energy Saving

Realized corporate philosophy of “saving” in various fields to make a clear contribution to the global environment in the midst of energy conservation and labor-saving activities across all industries sparked by the oil crisis. Developed various products that address the need for high-function, high-precision industrial instruments, as well as comprehensive building management services using communication technologies.



1995
Monitoring and control system



2000
Remote maintenance
service for buildings



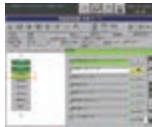
1985
Differential pressure and
pressure transmitter



1996
Thermal mass-flow sensors



1985
Next-generation control valve



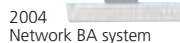
2000
Manufacturing execution
system for pharmaceutical
industry



1998
Entered ESCO business



1984
Comprehensive building management service



2004
Network BA system



2004
Control valve maintenance
support system



2007
Electric two-way valve with flow
measurement control function



2009
Network instrumentation module



2011
Control enhancement solution



2016
Cloud services for buildings



2017
Micro flow rate liquid
flow meter



2017
Intelligent LP gas meter with
embeddable wireless device



2015
Online anomaly monitoring system



Net sales for the year ended
March 31, 2018
¥260.4 billion
Operating income for the year
ended March 31, 2018
¥24.0 billion

2006-

azbil “Human-centered Automation”

Open Network System to Fully-digitalized, Seamless Network System

Adapting to the Surge in Social Needs for Environmental Conservation and Energy Saving and Offering Solutions for Sustained Development

Promoted advancement of network technologies and developed products and solutions that address various technological innovations, such as AI and big data, in each field, guided by an evolved group philosophy of giving people a sense of satisfaction through automation. Sought to solve the problems of customers and society globally and achieve sustainable development.

azbil's Value Creation

Life Automation (LA) Business

azbil's Value Creation

Responding to problems faced by customers and society in line with the changing times, we have been refining our technologies and solutions by drawing on our “measurement and control” automation technologies based on the idea of constantly solving problems by focusing mainly on people. The azbil Group is unique in its ability to promote value creation with customers using its integrated systems with close ties to their sites.

Issues Faced by Our Customers and Society

azbil Group's Operations

Challenges that change with the times

New product development and production for business growth, and advanced manufacturing corresponding to technological innovation



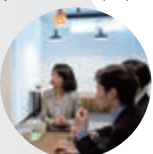
Security and disaster-preventive measures, and business continuity planning (BCP)



Creating comfortable, safe, and efficient office spaces and production sites, and healthy living environments



Creation of better work styles focused on people



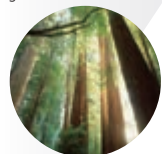
A stable supply of water and gas



Achieving compatibility between comfort and energy conservation



Reducing the burden on the global environment



BA

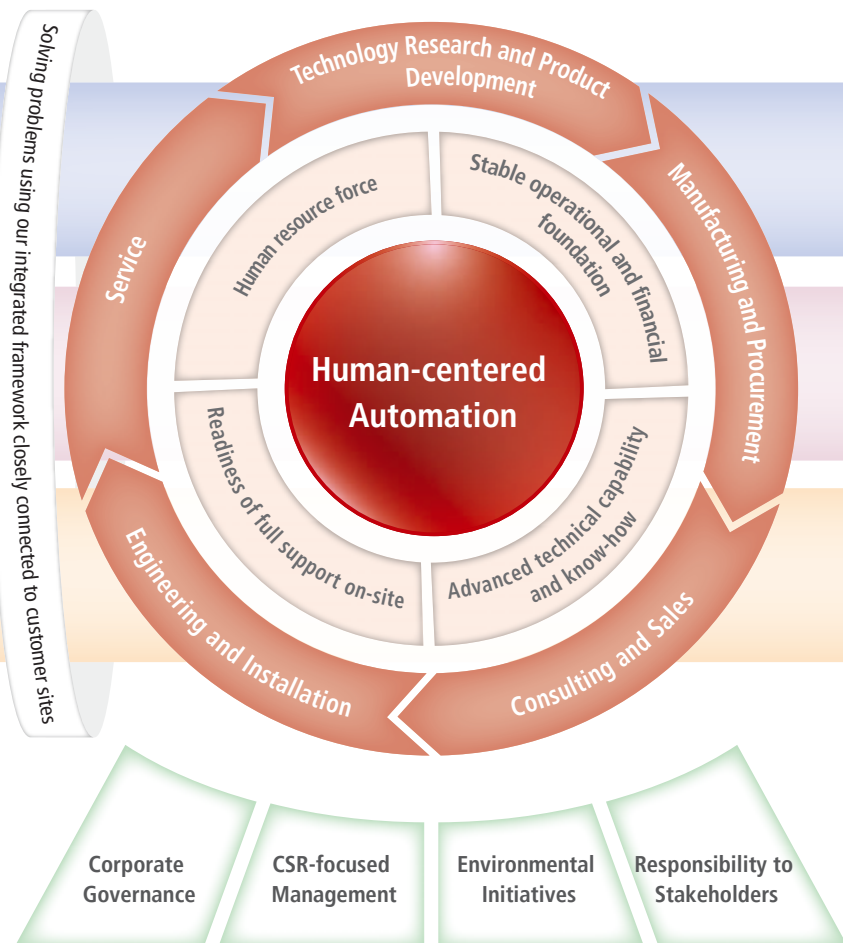
Building Automation Business

AA

Advanced Automation Business

LA

Life Automation Business



Approach to Sustainable Development Goals (SDGs)

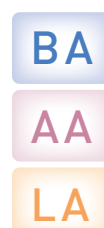
In response to various social issues, we will continue work related to the SDGs by promoting management based on the azbil Group philosophy.



azbil Group's Operations

► **P.34**

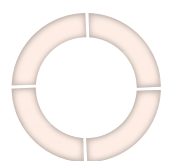
Introduce three businesses of Building Automation (BA), Advanced Automation (AA), and Life Automation (LA).



Four Strengths of azbil Group

► **P.10**

Introduce four strengths of the azbil Group which become the driving force of the value chain.



For more details, please see “SDG Initiatives” on pages 70–71.

Feature
azbil Group's Progressive Innovation

►P.28

Solutions Based on Our Measurement
and Control Technologies and Products

Long-term targets

Medium-term plan

Interview with the CEO

►P.18

Financial Targets

►P.27

Non-Financial Priority Initiatives

►P.27

Development and provision
of devices and applications
corresponding to various
technological innovations



High-precision
laser sensors

Multi-loop
controllers with
multifunction
display

Remote
monitoring
services

Valves with flow
measurement
function

Energy
management
solutions

Solutions that
meet the needs
of the times

Micro flow rate
liquid flow meter

Unique
products

Manufacturing
equipment for the
pharmaceutical
market

Real-time
microbe
detectors

Plant smart
industrial safety
system

Cloud
services

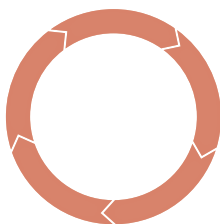
Our engineers with
thorough on-site knowledge
create value with customers
throughout the life cycle of
a customer's facilities.



Value Chain

►P.46

Introduce the azbil Group's
exclusive value chain which is
requisite for sustainable value
creation through automation.



Infrastructure to Support Value Creation

►P.58

Introduce the elements
which form the
infrastructure for the azbil
Group to maintain and
improve value creation.



Four Strengths of azbil Group

Drawing on its measurement and control technologies, the azbil Group, with a history of more than 60 years, has accumulated rich experience and abundant know-how, and is equipped with the human resources and systems that help customers achieve their goals. We are committed to contributing ourselves towards steady growth and a sustainable society, backed by a stable business foundation.



Stable Business Foundation and Sound Financial Constitution

► P.14-15 (Financial and Non-Financial Highlights)

With automation technologies at their core, the three businesses of the azbil Group form a combination that is relatively impervious to the impact of economic fluctuations. We also have a business model that, being involved throughout the life cycles of customers' buildings and facilities, delivers sustained profit over the medium and long terms. Drawing on this foundation, we generate stable income and cash flows to improve our financial constitution and deliver sustainable business expansion via growth investments as well as high levels of stable return to shareholders.

Rating and Investment Information, Inc. (R&I)

A

(Rating announced on October 18, 2017)

Equity ratio

63.2%

(as of March 31, 2018)



Reliable On-site Response Capability to Help Solve Customers' Problems

► P.56-57, P.105 (Global Operations, azbil Group Companies Data)

The azbil Group is not only a manufacturer but also a long-term consulting, engineering, and service partner. In this role, we remain close to customers' sites, understand their problems, and provide support to solve those problems. Through cooperation among our bases in Japan and overseas and our sales, development, production and service functions, which go beyond Group companies and business segments, we aim to create value with customers at their sites.

Number of bases

Japan... **204** bases

Overseas... **110** bases

(as of March 31, 2018)

over 100 years, has amassed a wealth of advanced automation technologies to help customers resolve their problems. We will continue aiming for and challenging the world with a business structure consisting of three segments, as well as a sound financial constitution.



Advanced Automation Technologies and Abundant Know-how

► P.34-45, P.47-49 (Business Introduction, Business Overview, Technology Research and Product Development)

To address the needs of various customers and solve their problems, we are refining our advanced automation technologies, which take into account IoT and various other technological innovations, as well as market fluctuations. Our strength lies in our abundant know-how amassed over many years at our customers' sites. Making full use of these technologies and know-how we cultivated through our pursuit of automation technologies in a wide range of fields over more than a century, the azbil Group contributes to solving problems and reducing environmental burdens for customers and society.

CO₂ emissions reduction at customers' sites through our products, services, and solutions

3,280,000 tons of CO₂

(Year ended March 31, 2018)

For details, please see "Environment" on page 13.



Human Resources with Advanced Specialist Expertise

► P.54-55, P.78-79 (Human Resources, Responsibility to Employees)

We established the Azbil Academy, an institution specializing in human resource development, to concentrate on fostering personnel who can create value together with customers at their sites. In order to fulfill measurement and control technologies which require advanced specialist expertise, we set up a training environment with various technical education courses using actual equipment, an incentive scheme for official qualifications acquisition, an accreditation system for technical professionals and other schemes, to enhance employees' skills. In addition, we are creating a working environment where our employees can actively exert their skills through various human resource measures.

Azbil Academy: Number of annual students
(total number of students)

Approx. 70,000 people

*Courses include basic education (such as CSR), personal-choice correspondence education, and e-learning

*The number of students includes employees from Group companies, partner companies, dealers etc.

Number of employees with official qualifications (priority qualifications)
(total number of employees)

Approx. 2,600 people

*Number of people with highly important qualifications (among official qualifications) from business management perspective

The Social Values Created through the azbil Group's Operations



Through our business activities, the azbil Group strives to materialize the Group philosophy of realizing safety, comfort, and fulfillment in people's lives and contributing to global environmental preservation through "human-centered automation."

Safety

To live and work in good health and in safety

- Measuring equipment and programs, which detect malfunctions and help address them, as well as facility monitoring systems play a role in the safe operation of manufacturing facilities to ensure there are no accidents.
- Various systems, including those that manage access or automate dangerous work processes and prevent errors, enable the safe operation of facilities and safeguard people who work in offices or factories.
- We provide various equipment and applications that manufacture high quality and safe food and pharmaceuticals, as well as conduct management ensuring a stable supply of water, electricity, and gas to your doorstep.

Comfort

To always live and work in comfort

- Measuring and analyzing the state of various indoor air environments in offices, factories, and homes, then making detailed adjustments such as to temperature, humidity and air volume, and removing dust, pollen, and other particles in the air create comfortable spaces with minimal temperature differences between areas.
- Automation and information technologies boost work quality and efficiency, which in turn improve productivity and quality and lead to better working environments and, by extension, support enhanced customer and user satisfaction and improved work styles for people.

Fulfillment

To create new value with the customer

- We create new value by working with customers at their sites to improve the operation of buildings and factories, enhance quality, conserve energy, and reduce environmental impact, which help to solve customers' issues.
- We craft optimal solutions with comprehensive support throughout the facilities' life cycle by promptly responding to each customer's needs using our integrated structure that combines consulting, development, production, and maintenance.
- We support customers' businesses by leveraging our extensive know-how, including the use of contracts that guarantee energy-saving effects and a range of subsidy and support systems.

Environment

To optimize the management and usage of energy

- In buildings, energy is conserved and cost is reduced by adjusting the operation and management of air conditioning equipment to match a building's scale and purpose, and by upgrading or renewing facilities, including making optimal use of energy sources.
- In the manufacturing process in plants and factories, the reduction in usage of electricity, steam, and compressed air through automation contributes to reducing the waste of energy.
- The visualization of the usage conditions of energy leads to the provision of the best solutions for energy conservation while maintaining comfort and quality to conserve energy.

Through our products, services, and solutions, we contribute to environmental impact reduction for society. The amount of CO₂ emission reduction at our customers' sites in the fiscal year ended March 2018, which totaled 3,280,000 tons of CO₂, is equivalent to approximately 1/400 of all CO₂ emissions in Japan (approx. 1.3 billion tons of CO₂). The scope of these estimates has been expanded to reflect the international expansion of our businesses.

*In order to assess the contribution to the reduction of environmental impact quantitatively, the effects were classified into the three categories of 1) effects from automation, 2) effects from energy management, and 3) effects from maintenance services. Differences were estimated as reduction effects with the assumption that customers did not adopt our products, services or solutions at their sites. Global effects of reduction are partially based on our own concept.

CO₂ emission reduction at customers' sites
(fiscal year ended March 2018)

Automation effects

We have reduced environmental impact in our Building Automation, Advanced Automation, and Life Automation businesses, taking advantage of our measurement and control technologies.



2,880,000
tons of CO₂

Energy management effects

We have reduced environmental impact, taking advantage of our energy management solution, to achieve reduction in electricity consumption, energy consumption, and CO₂ emissions.



280,000
tons of CO₂

Maintenance services effects

We have reduced environmental impact by providing the high value-added services of the azbil Group, taking advantage of the knowledge and know-how acquired at customers' sites.



120,000
tons of CO₂

CO₂ emission reduction at customers' sites (fiscal year ended March 2018)

Total: 3,280,000 tons of CO₂

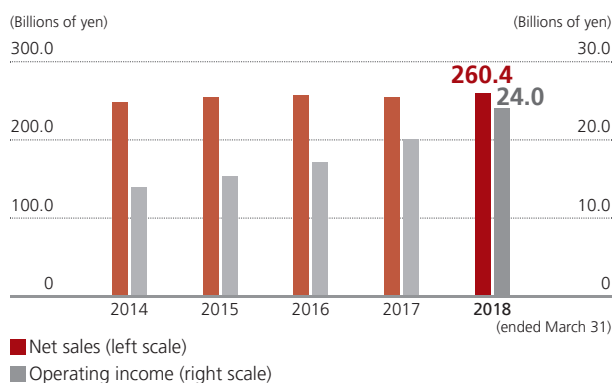
Please refer to our website for details on the calculations.

https://www.azbil.com/csr/basic/environment/core_business_activities/contribution/contribution-to-the-environment/index.html

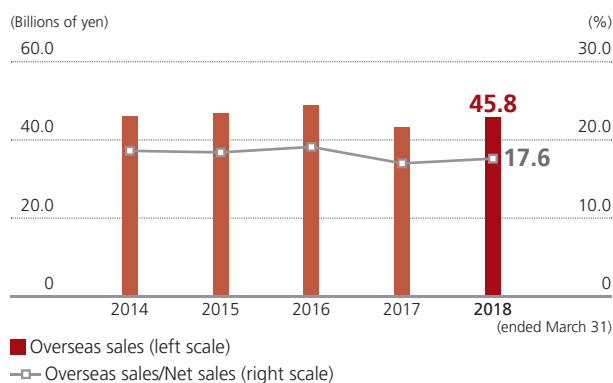
Financial and Non-Financial Highlights

Azbil Corporation and its consolidated subsidiaries

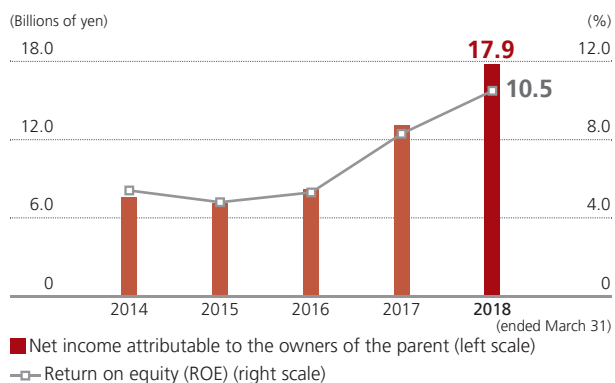
Net Sales, Operating Income



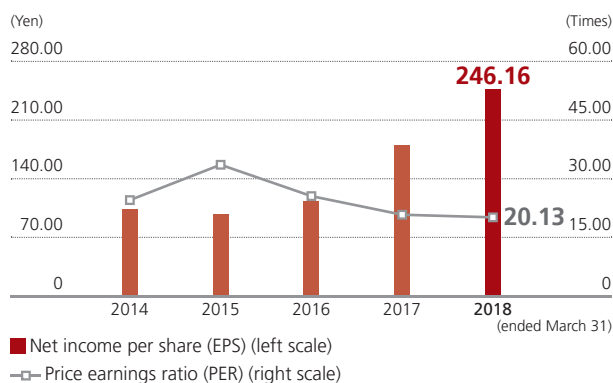
Overseas Sales, Overseas Sales/Net Sales



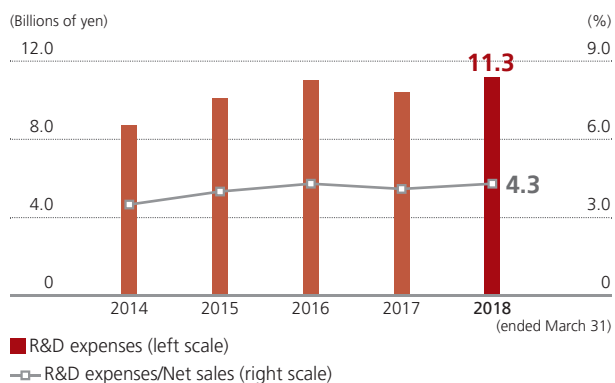
Net Income Attributable to the Owners of the Parent, Return on Equity (ROE)



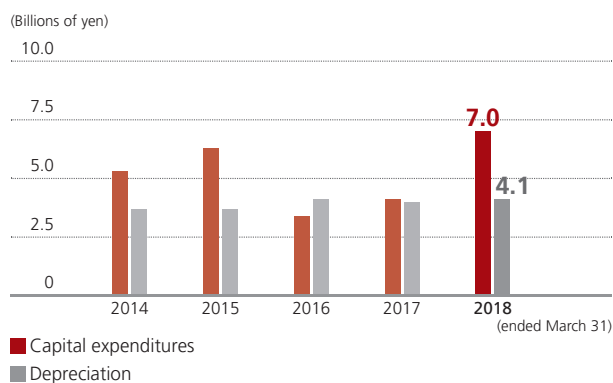
Net Income per Share (EPS), Price Earnings Ratio (PER)



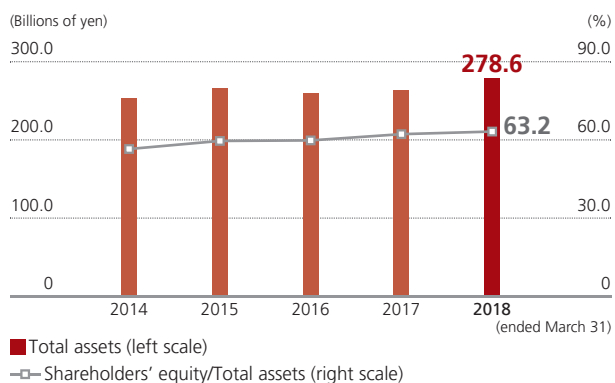
R&D Expenses, R&D Expenses/Net Sales



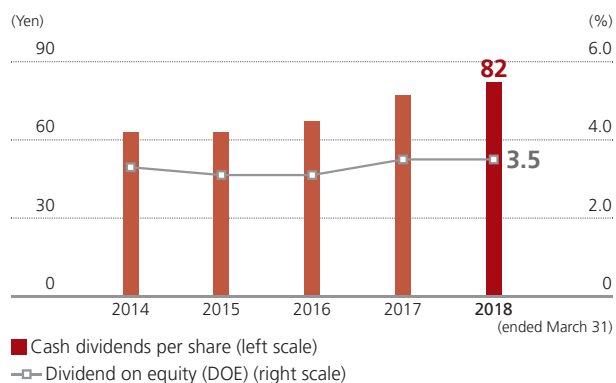
Capital Expenditures, Depreciation



Total Assets, Shareholders' Equity/Total Assets

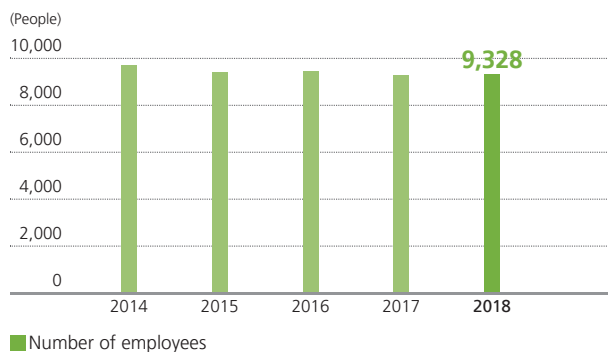


Cash Dividends per Share, Dividend on Equity (DOE)



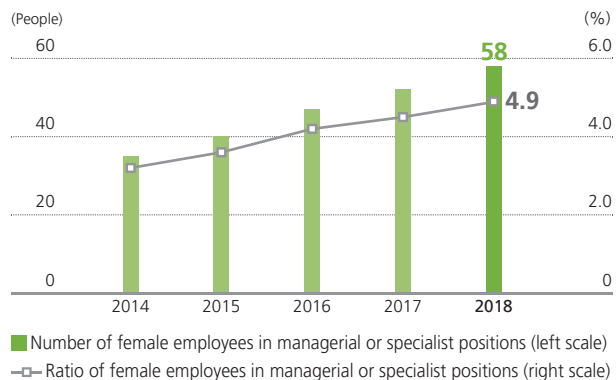
Number of Employees

(as of March 31)



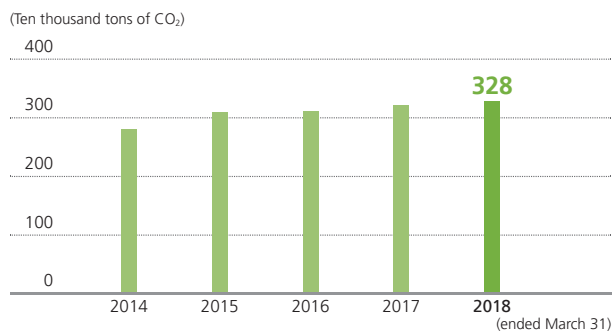
Number of Female Employees in Managerial or Specialist Positions, Ratio of Female Employees in Managerial or Specialist Positions

Azbil Corporation (as of April 1)



CO₂ Emission Reduction at Customers' Sites

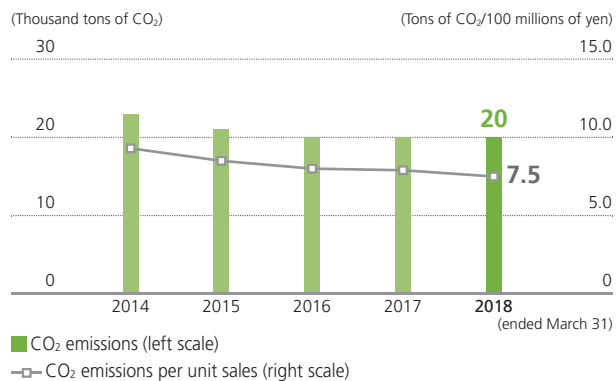
Azbil Corporation and its overseas subsidiaries*



*Steadily expanding since the addition of overseas subsidiaries in FY2014.

CO₂ Emissions (Scope 1, 2) and CO₂ Emissions per Unit Sales

Azbil Corporation, its consolidated subsidiaries in Japan and its main manufacturing bases in overseas



The Past Year at the azbil Group

Note: Dates generally indicate the date on which the information was released or of the implementation day.

Topics

May 9

Registered as an energy management service provider that supports energy conservation initiatives, including an azbil-led consortium, factories and offices for the fourth consecutive year

June

Included in the FTSE4Good Index Series (a leading socially responsible investment index) for 11th consecutive year



FTSE4Good

June 5

Azbil Kimmon starts a joint verification project that leverages the Low Power Wide Area (LPWA) network for the purpose of rationalizing LP gas distribution

August 4

Holds science experiment classes for junior high school students as a new social contribution activity co-hosted by Fujisawa City, Kanagawa Prefecture



August 25

Included as a constituent stock in three ESG indices newly selected by Japan's Government Pension Investment Fund (GPIF)

September 11

Azbil Security Friday ties up with Allied Telesis Holdings K.K. on Secure Enterprise SDN (SES) solutions

September 12

Receives the 21st Engineering Education Award (Achievement Category) from the Japanese Society for Engineering Education

2017

April

May

June

July

August

September

Products/ Services



LA May 19

Azbil Kimmon starts sales of a new intelligent LP gas meter



AA July 20

Multi-loop controllers with multi-function display wins the Distinctive Merit Award at the 47th Machine Design Award

AA September 13

Scheme adopted using Azbil as an energy management service provider in projects, including in steel and chemical markets, for the fourth consecutive year

BA September 22

Expands a line-up of high-performance valves for air-conditioning systems overseas



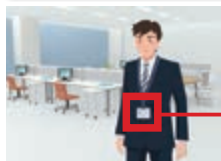
AA October 4

Compact digital mass flow controller wins a Good Design Award 2017

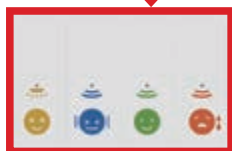


September 20

Starts joint validation testing for a thermal sensation voting air conditioning system that responds to the preferences of all building occupants



Portable "Thermal sensation voting card" for people in the room



Light Cold Comfortable Hot

October 20

The azbil Honey Bee Club provides ¥6 million in support for social welfare associations and other organizations

October 31

Receives technology and new product development awards from the Society of Instrument and Control Engineers in the year ended March 2018

December 3

Co-sponsors the 12th Shonan International Marathon (Japan) and supports efforts to reduce environmental burdens



December 15

Receives the 3rd Mukaidono Safety Award that recognizes companies and organizations that have contributed to improving safety in manufacturing

March 29

Announces the establishment of the "Strategic Planning & Development Office for Southeast Asia" in Singapore in April



February 22

An azbil employee wins the 7th Monodzukuri Nippon Grand Award for the development of a real-time aquatic microbe detector

February 23

Recognized as a "White 500" company under the 2018 Certified Health and Productivity Management Organization Recognition Program



azbil's Value Creation

October

November

December

2018

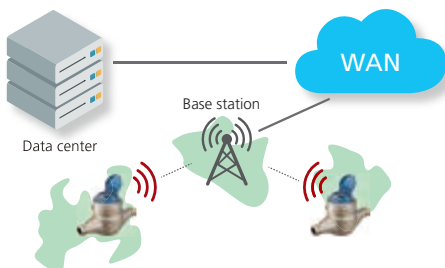
January

February

March

LA November 14

Azbil Kimmon starts operation of automatic reading for water meters using Low Power Wide Area (LPWA)



AA November 24

Starts development of next-generation smart robots with advanced force sensing capabilities



AA November 28

Starts sales of micro flow rate liquid flow meter enabling thermal measurement of micro liquid flow rates

BA January 22

Adds a new BA system responding to IoT and other technical innovations, to the line-up for domestic sales



LA February 5

Azbil Kimmon starts operation of an LP gas data center using cloud services

LA February 7

Azbil Telstar develops an automatic loading and unloading system enabling cleaning and sterilization of pharmaceutical lyophilizers



LA March 27

Announces launch of tablet remote controller, able to control residential central air-conditioning systems



Interview with the CEO

- Q1. Vision
- Q2. Initiatives of medium-term plan
- Q3. Fiscal 2017 performance
- Q4. Changes in targets and business strategies
- Q5. Progress status of each business segment policy
- Q6. Status of global development
- Q7. Reinforcement of Group-wide operational foundation
- Q8. Capital policy
- Q9. Strengthening corporate governance
- Q10. Addressing moves toward ESG evaluation
- Q11. Outlook for fiscal 2018



New Record-high Earnings

Targeting further highs, we will accelerate our growth strategy from medium-to-long-term perspectives, while steadily developing systems to enable sustainable growth.

Hirozumi Sone
President and Chief Executive Officer
Azbil Corporation

Q1

What kind of vision is the azbil Group aiming to realize?

We aim to become a global company that deploys cutting-edge technology driven by “human-centered automation” to help realize a future society and industry with a balance between economic development and solving social issues.

The azbil Group has pursued automation technologies for more than a century. Automation is the core technology that supports the basic cycle of achieving targets, accomplished by setting targets and analyzing situations to identify issues, then appropriately addressing those issues. This technological domain will continue to evolve as we incorporate new targets and technologies into the cycle. We have achieved ongoing growth by advancing our business with automation at its core. This goes beyond simply controlling machines. Rather, it is as a characteristic unique to the azbil Group passed down by its founder, who emphasized the notion of “using the power of

technology to free people from drudgery.” Accordingly, we have refined various technologies and services based on the idea of always focusing on people to solve problems.

This quest for automation derives from a corporate culture built on DNA inherited since our foundation. The quest has then brought us to establish our philosophy “human-centered automation,” which aims to bring improvements in comfort and productivity and ultimately give people a sense of satisfaction, as well as its symbol and our current name, “azbil” (automation zone builder). Currently, we are practicing management with this philosophy at the core. We recognize that

the azbil Group's corporate values take shape through a process of co-creation together with our various stakeholders—including shareholders, customers, suppliers, employees, business partners, and society. We adopt a broad interpretation of corporate social responsibility (CSR), positioning “basic CSR” as what we must fulfill in order to exist in society and “proactive CSR” as helping resolve social issues through our core business and the like. We see our corporate value through implementation of both basic CSR and proactive CSR, and practice “CSR-focused management” driven by both perspectives in a balanced manner unique to the azbil Group.

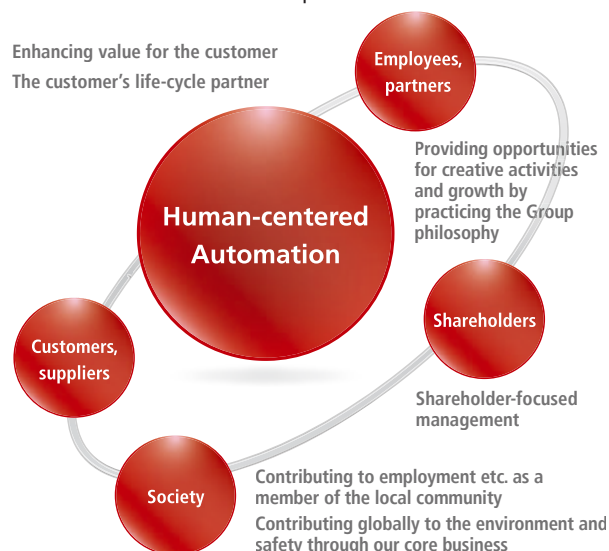
On the business front, based on this “human-centered” perspective, we have leveraged our proprietary automation technologies to advance our operations in three market segments, each with different characteristics, in order to spread our business environment risks. These segments—Building Automation (BA), Advanced Automation (AA), and Life Automation (LA)—are now steadily expanding their respective business domains, taking advantage of the sophistication of social issues and technological progress in such areas as IoT, big data, and AI. At the same time, in addition to developing and making high-quality products as a manufacturer, we are enjoying increasing opportunities to offer varying services.

With advances in information and communication technology (ICT), it is now possible to narrow down big data via the Internet, and to use AI to make complex decision-making tasks and provide associated services. Indeed, the so-called “fourth industrial revolution” aimed at resolving multiple social issues is making good progress. In its 5th Science and Technology Basic Plan (fiscal 2016–2020), meanwhile, the Japanese government proposed “Society 5.0^{*1}” as a human-centered so-

ciety that balances economic development and solving social issues. This can be overlaid with our future vision. In other words, the azbil Group, envisioning a world-leading “super-smart society,” will combine its cutting-edge automation technologies and services with the “human-centered” concept. Our aim here is to become one of the world's leading corporate groups that helps build a society in which humans and technologies collaborate at a more advanced level.

^{*1} Society 5.0: One of the basic guidelines of the science and technology policy proposed by the Japanese government in the 5th Science and Technology Basic Plan (fiscal 2016–2020). Its predecessors are Society 1.0 (Hunting society), Society 2.0 (Farming society), Society 3.0 (Industrial society), and Society 4.0 (Information society). Society 5.0 is a “super smart society” in which, driven by the fourth industrial revolution, a succession of new values and services are created to enrich people's lives. Through its pursuit of “human-centered automation,” the azbil Group will help realize a society and industry envisaged by Society 5.0 by creating and providing new levels of value in automation.

Presenting all stakeholders with the “human-centered” azbil Group



Q2

Please describe the direction of initiatives under the Group's medium-term plan aimed at achieving long-term targets for fiscal 2021.

We are driving aggressive management with a focus on expanding business areas earmarked for sustainable growth.

The current medium-term plan (fiscal 2017–2019) is the second step towards achieving our long-term consolidated targets for fiscal 2021, specifically, net sales in the ¥300.0 billion range, operating income of ¥30.0 billion or higher, and ROE of 10% or higher. It is positioned as a three-year period for establishing a business foundation enabling us to secure business growth and high-level profits after the Tokyo Olympic and Paralympic Games in 2020, while aggressively promoting reforms of governance, compliance, and human resource de-

velopment related to corporate sustainability.

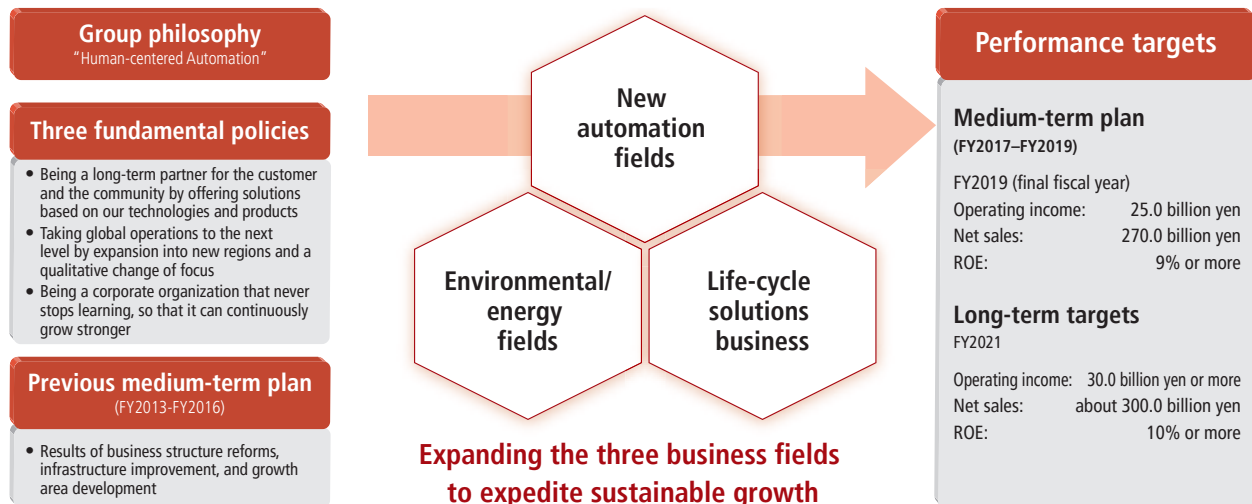
Specifically, we are focusing on more aggressive management to implement the three fundamental policies of the plan: (1) Being a long-term partner for the customer and the community by offering solutions based on our technologies and products; (2) Taking global operations to the next level by expansion into new regions and a qualitative change of focus; and (3) Being a corporate organization that never stops learning, so that it can continuously grow stronger. Guided by

Interview with the CEO

these policies, we are promoting new product development and strategies through three fields: “Strengthen life-cycle solutions business” (supply value matched to each development stage of the life cycle of a customer’s business), “Develop new automation fields” (respond to innovation born from combining “things” and information), and “Expand environ-

mental and energy fields” (provide solutions to the long-term issues of environmental impact reduction and energy demand restraint). In fiscal 2019, the final year of the plan, we are targeting consolidated net sales of ¥270.0 billion, operating income of ¥25.0 billion, and ROE of 9% or higher.

Medium-term Plan (fiscal 2017–2019): Policies and Targets



Q3

Please describe the Group’s performance in fiscal 2017, the first year of the medium-term plan.

We achieved a significant increase in earnings thanks to successful efforts to improve profitability, with the help of a healthy business environment.

Against the backdrop of vibrant investment in domestic urban redevelopment, demand for equipment and systems for large buildings remained at high levels, while capital spending on production facilities was solid both in Japan and overseas. In this business environment, we made aggressive efforts to increase orders, generating a 4.4% year-on-year increase in orders received*2, to ¥266.3 billion.

By segment, the Building Automation (BA) business posted a decline in overall orders received due to recoil from the previous year, during which we attracted large-scale multiple-year contracts. However, the Advanced Automation (AA) business and Life Automation (LA) business both reported significant year-on-year increases in orders received.

Consolidated net sales rose 2.2%, to ¥260.4 billion, buoyed by sales increases for all three segments, especially the BA and AA businesses. On the earnings side, operating income grew 19.3% year on year, reflecting higher sales and our renewed efforts to enhance profitability from the previous fiscal

year. Indeed, operating income exceeded our planned target, reaching ¥24.0 billion, a record-high figure. Ordinary income climbed 18.8%, to ¥24.3 billion, mainly due to the increase in operating income. Net income attributable to owners of the parent rose considerably, up 36.0% year on year, to ¥17.9 billion. In addition to the increase in operating income, this was due to a number of factors, including a gain on sales of investment securities, a decrease in loss on liquidation of subsidiaries and affiliates, and a reduction in tax expenses following a reappraisal of the recoverability of deferred tax assets of a subsidiary. As a result, return on equity (ROE) at fiscal year-end was 10.5%, showing a steady improvement. (Excluding the temporary impact of the gain on sales of investment securities and the reduction in tax expenses of a subsidiary, ROE would have been around 9.5%).

*2. Orders received: Effective fiscal 2017, we have changed the calculation of orders received to exclude foreign currency translation adjustments, following a revaluation of our order backlog.

Q4

The Group's fiscal 2017 results were better than your forecasts. Do you plan to make any changes to your targets and business strategies?

We will step up efforts necessary for sustainable growth while keeping the numerical targets of the medium-term plan unchanged.

We attribute our performance in fiscal 2017 to the outcomes of business and operational structure reforms and the backup of a robust business environment. In addition to redevelopment and infrastructure projects currently under way ahead of the Tokyo Olympics and Paralympics, we benefited from rising investment sentiment toward streamlining operations and saving labor—reflecting labor shortages—as well as ongoing healthy business conditions. If such business conditions continue, it will become increasingly possible for us to deliver business growth in excess of that projected under our current medium-term plan. However, we foresee various elements of uncertainty as we look ahead to fiscal 2019, the final year of the current medium-term plan, and also to our long-term targets for fiscal 2021. These include expected contraction of the

domestic market stemming from the aging, declining population, as well as issues like trade frictions between the United States and China on the global economic front. Capital investment sentiment is also uncertain, especially in light of limited domestic demand and lack of optimism about its longevity.

Therefore, although we recognize the considerable progress of our reform initiatives, we will keep our fiscal 2019 targets unchanged as we further strengthen profitability and expedite efforts to expand our business domains, to enable swift, accurate responses even under changing business conditions. At the same time, we will actively make investments necessary to reinforce our business foundation, from the perspectives of meeting our fiscal 2021 targets and achieving sustained growth thereafter.

Q5

Please describe the progress of measures taken in each business segment.

We are ahead of schedule with our various initiatives, while the profit structure of the LA business is also stabilizing.

Building Automation (BA) Business

—Renovation projects with good profitability progressing steadily—
In this segment, we are establishing and strengthening systems enabling efficient job processing, while responding steadily to demand for a number of new construction projects that are expected to continue in the lead-up to the Tokyo Olympic and Paralympic Games. These projects will lead to business opportunities through life cycles of buildings, such as services and renovation of existing structures. Regarding new building construction projects, demand is leveling off due to avoidance of the redevelopment rush before the Olympic Games and labor shortages, so we do not foresee a major fall in demand after the Games, which was a temporary concern. In addition, we expect demand for renovation of existing buildings to expand after 2020. Accordingly, we are actively making proposals to capture renovation demand for existing buildings earmarked for growth, while steadily addressing demand for new building construction projects. The increase in these existing building renovation projects, which are highly profitable, will help us improve this segment's profitability in

the future. In fiscal 2017, meanwhile, we introduced building automation systems to address customers' needs throughout the life cycles of their buildings and facilities, by embracing IoT and other technological trends and strengthening open networks. On the global front, we steadily built on our track record of achievements in landmark projects in Asia.

Advanced Automation (AA) Business

—Profit improvement exceeding expectations—

In this segment, we are focusing on efforts to improve profitability and expand businesses in overseas and other growth markets. Specifically, we are entrenching operations in our three business sub-segments*³ and meticulously addressing needs from upstream to downstream via our integrated system, covering everything from marketing to development, production, sales, and services. In the domestic petroleum and chemical sectors, we are deploying IoT, big data, and other technologies to advance into new domains, such as smart industrial safety system, while working to improve profitability in areas where demand is stable, notably main-

tenance and equipment replacement. In addition, we are introducing products that support automation in a variety of production processes. These include high-precision laser sensors for cutting-edge growth markets in Japan and overseas, notably semiconductor devices, flat panel displays (FPDs), and rechargeable batteries.

As a result, in fiscal 2017, we achieved an improvement in profit that exceeded the forecasts of our plan. Going forward, we will continue striving to enhance profitability. At the same time, we will expedite efforts to expand our business in high value-added domains by concentrating human and other managerial resources in areas where the azbil Group can demonstrate its strengths. These include semiconductor manufacturing equipment, high-performance materials production equipment, and combustion-related equipment.

*3. Three business sub-segments (for accounting purposes):

Control Product (CP) business: Supplying factory automation products such as controllers and sensors, etc.

Industrial Automation Product (IAP) business: Supplying process automation products such as differential pressure & pressure transmitters, and control valves, etc.

Solution and Service (SS) business: Offering control systems, engineering service, maintenance service, energy-saving solution service, etc.

Life Automation (LA) Business

—Progressively building a stable earnings structure—

In the LA business, as well, we are seeing the benefits of our business restructuring and business infrastructure development as we establish a stable earnings structure. In addition, we are opening and entrenching our presence in new fields, taking into account advances in the deregulation of the domestic gas market, as well as IoT and other technological innovations. For example, we developed a new intelligent LP

gas meter with a built-in communication module compatible with LPWA*4 networks, and we are participating in verification projects for remote measurement of meter reading values. In the Life Science Engineering (LSE) field, we have developed an automatic loading and unloading system for freeze-drying equipment that contributes to improved safety and productivity of pharmaceutical manufacturing. Going forward, we will continue striving to stabilize and improve the profitability of each of this segment's business fields. At the same time, we will demonstrate Group synergies that transcend segment lines to create business opportunities in the market for gas and other energy supply, while developing new products and services in response to changes in the global pharmaceuticals market.

*4. LPWA (low power wide area): A wireless communication technology that enables long-distance communication using much less power than previously; it is expected to be utilized in IoT development.



Q6

Overseas capital investment is strong, but what is the status of global expansion, which you have identified as a growth field?

We aim to improve our brand's strength overseas by advancing a business model unique to the azbil Group, with solutions as the main component.

In the face of progressive economic globalization, the azbil Group has earmarked overseas markets as a growth field as it works to further solidify its business foundation as one of its basic policies. Currently, we are strengthening our sales and service network and broadening our procurement and production system to target overseas business growth.

In the process, we have identified some regions and businesses that require partial strategic reassessment, but this experience has enabled us to accumulate various knowledge and deploy new response measures. We are now entering the stage in which we can book profits from the upfront investment phase, allowing us to witness a certain level of progress.

Under our current global expansion, we have identified several key challenges for achieving the next stage of growth: accumulate a proven track record, leverage that track record to build relationships of trust with customers, and improve our brand power. In the BA business, therefore, we focused on acquiring projects at core buildings, commercial facilities, airports, and the like in each nation. During the year, we introduced state-of-the-art building automation systems, featuring advanced environmental controls that integrate leading-edge technologies, into Thailand, Singapore, and other overseas markets ahead of the domestic market. As a result of these efforts, we have created a business model originating in Ja-

pan that provides comfort and energy savings at each stage of the building's lifecycle. This model is gradually being acknowledged in Asian countries, helping us add to our record of achievement.

In the AA business, as well, several offerings unique to the azbil Group have received high praise overseas on a par with Japan. These include "smart industrial safety system" services and systems, such as remote maintenance for valves and anomaly monitoring systems incorporating advanced sensing, analysis, and AI technologies, as well as laser sensors that measure position, thickness, width, and other aspects of materials, including high-performance film, during the various processing and assembly processes of manufacturing. We are also receiving more and more inquiries about solutions offered by the azbil Group in specialized fields in markets related to chemical and other process automation, as well as markets related to factory automation equipment, such as semiconductor manufacturing equipment and rechargeable battery manufacturing equipment.

Our greatest assets are the deep relationships of trust we have cultivated as we have addressed strict demands from

customers seeking to create and produce environments with world-leading levels of comfort on a global scale, as well as our in-depth business development covering entire life cycles, derived from our provision of advanced technologies and services. Products and applications born from these assets, as well as solutions that augment our services, represent the source of the azbil Group's unique identity and competitiveness. With respect to expediting our global expansion, we opened the Strategic Planning & Development Office for Southeast Asia in Singapore. This new office is responsible for cross-divisional planning, strategic, and management functions. Looking ahead, we will further strengthen our systems in each country. This will include developing human resources to provide solutions across the life cycles of our customers' equipment, even in overseas markets. We will also actively build partnerships, including through M&As, with domestic and foreign companies with strengths in products, sales and service networks, and other areas. In overseas markets, we will leverage the azbil Group's strengths to develop business models and domains and thus further expand our operations.

Q7

How do you plan to reinforce azbil's Group-wide operational foundation to achieve sustainable growth?

In addition to continuously strengthening Group governance, we are forging ahead with new initiatives in production and R&D. Also, we are creating environments enabling individuals to more smoothly demonstrate their capabilities.

First of all, we are restructuring our production system. In Japan, we will consolidate the production functions of our Shonan Factory and Isehara Factory into the Shonan Factory, which will be positioned as the azbil Group's "mother factory" that will spearhead improvements in the competitiveness of the Group's overall manufacturing in Japan and overseas, by addressing customers' needs for customized and other high value-added production solutions. Our plan is for the Shonan Factory to evolve into a next-generation facility with advanced technological power and production lines. At the same time,

Image of Shonan Factory (scheduled for completion in 2019)



we will invest in facilities and equipment at the Fujisawa Technology Center and embrace cutting-edge key technologies in our quest to further strengthen the azbil Group's unique production technologies. Overseas, meanwhile, we have constructed a new building at the Thailand Factory, through which we will expand the supply of products to Southeast Asia and neighboring Asian countries.

Second, we will deploy IoT and AI technologies to strengthen our responses to demand for innovation across all industries. With the establishment of the IT Solutions Headquarters, we now have a framework in place for accelerating the development of products and services featuring these advanced technologies.

Focusing on human-machine collaboration, meanwhile, we are combining robotics and proprietary advanced devices to develop next-generation smart robots that offer attractive new ways of manufacturing.

Third, we will strengthen Group governance. Specifically, we will establish personnel and mechanisms conducive to business and operational expansion, and we will gradually in-

troduce a core information system to domestic and overseas Group companies so we can roll out these standard mechanisms globally. This will enable us to unify the management of our business activities, which is an urgent issue as we expedite our global expansion.

Finally, we will strengthen our human resources so that we can respond flexibly to the transformation of labor quality stemming from technological innovation and market changes.

Specifically, we will review business processes in response to market conditions and trends in IoT and other technologies. At the same time, we will reform our personnel system to facilitate the development of human resources who promote continuous value creation, and also to support and evaluate their ability to demonstrate their capabilities, based on a consistent concept covering all employees. This will enable us to undertake swift reforms of workstyles and other business structures.

Q8

Please describe your capital policies.

In fiscal 2018, we declared a significant year-on-year increase in dividends, as we did in fiscal 2017. We also implemented a repurchase of own shares.

Seeking to increase shareholder value, the azbil Group promotes a disciplined capital policy. Our aim is to achieve return on equity (ROE) of 10% or higher as a long-term target, while taking into consideration a good balance among the three fundamental objectives of enhancing shareholder return, investing for growth, and maintaining a sound financial foundation. We regard shareholder return as an important management priority. Here, we comprehensively evaluate our consolidated business performance, ROE, and dividends on equity (DOE), as well as the need to retain internal reserves to develop our future business and reinforce our corporate structure. Our shareholder return policy, which centers on dividends, also includes flexible share buybacks. We pay particular attention to maintaining stable dividends while raising their levels.

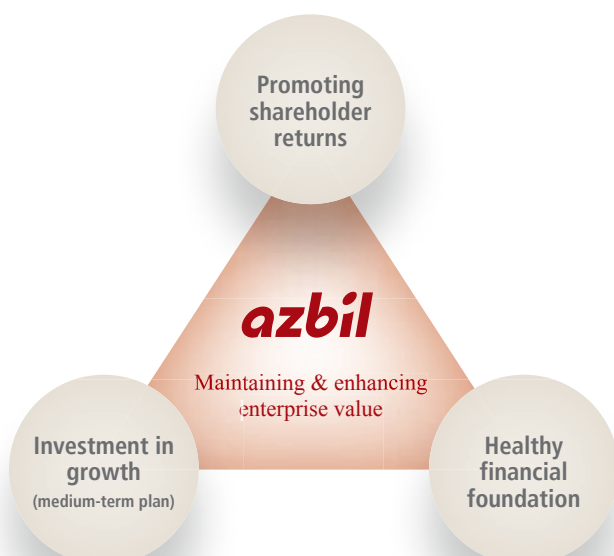
Based on the above policy, we repurchased 710,000 shares (valued at around ¥3.0 billion) in fiscal 2017 as part of our

shareholder return commitment. Buoyed by a solid business performance, we also declared annual cash dividends of ¥82.00 per share (including the interim dividend), as announced in May 2017. In light of the operating environment, as well as our business structural reforms and efforts to reinforce profitability, we will further strengthen returns to all shareholders in fiscal 2018. Specifically, we plan to pay annual cash dividends of ¥92.00 per share, up ¥10.00 year on year, reflecting our forecast for increased earnings from our ongoing business activities, as well as our medium-term plan and prospects for sustainable growth. In addition, at the same time of improving capital efficiency, we are committed to further enhancing shareholder return and implementing flexible capital policies according to changes in the corporate environment in a manner that reflects our performance situation and outlook. With this in mind, we implemented another repurchase of own shares^{*5}, with an upper limit of 1 million shares or ¥5.0 billion in acquisition value, since the close of fiscal 2017.

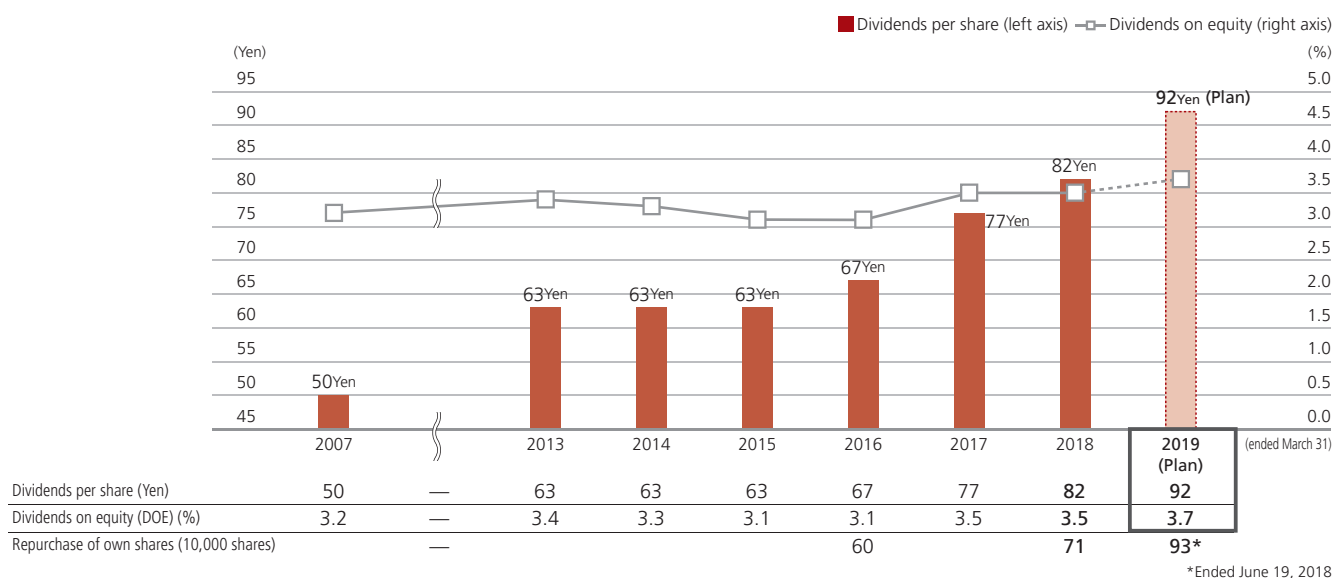
We are also committed to investments aimed at realizing sustainable growth and strengthening our management structure. Accordingly, we will continue striving to further increase shareholder value by retaining earnings and otherwise effectively deploying our capital. Specifically, we will focus on strengthening and expanding our business foundation, including by enhancing our lineup of growth-oriented products and services, while restructuring our advanced global production and development systems. We will also promote M&As and other future growth investments. In addition, we will continue maintaining a sound financial foundation that will enable us to run our business and fulfill our responsibility to supply products even in unforeseen circumstances, such as the occurrence of large-scale natural disasters.

^{*5} Completion of repurchase of the Company's own shares: The Company repurchased 936,200 shares, for a total acquisition value of ¥4,999 million, between May 14 and June 19, 2018.

Basic Capital Policies



Trend in Returning Profits to Shareholders



Q9

What kind of initiatives are you taking to strengthen corporate governance?

We will increase the number of independent outside directors to strengthen the oversight function and expand diversity. We will also pursue higher management transparency by abolishing the counselor and advisor system.

For some time, the azbil Group has been working to strengthen corporate governance as a priority issue while creating a stable, highly profitable structure that earns high praise from shareholders and other investors. Following deliberations held by the Nomination and Remuneration Committee, of which outside directors form the majority, in fiscal 2017 we reorganized the remuneration system for inside directors, replacing it with a performance-oriented system linked with the Group's long-term targets and medium-term plan achievements. In fiscal 2018, we increased the number of our independent outside directors from the current three to four, so that our outside directors account for more than a third of our Board of Directors. As a result, we strengthened the management oversight and diversity, not only with respect to professionalism, experience, and knowledge, but also nationality and gender. We look forward to receiving various valuable opinions from outside directors as we target sustainable company growth and increased corporate value in the future. In addition, the

Board of Directors resolved to amend the Company's Articles of Incorporation to abolish the system of counselors and advisors, established to advise the president, having deemed that such a system is no longer necessary. Going forward, we will continue enhancing management transparency and further strengthening corporate governance.

In light of a recent revision of Japan's Corporate Governance Code, we have sought continuously to ensure objectivity and transparency through a policy of reducing company strategic shareholdings and that of appointing and dismissing executives. We are also striving to enhance timely, appropriate dialog with all stakeholders, including shareholders and other investors, in an initiative spearheaded by our executive officer in charge of corporate communications. Through these activities, we will continue strengthening corporate governance to deliver sustainable growth and increased corporate value over the medium and long terms.

Composition of the Board of Directors (as of June 26, 2018)

More than 1/3
of the Board are
outside directors



Number of inside directors: 6



Number of independent outside directors: 4
(including 1 of foreign nationality and 1 female)

Note: The Chairman of the Board does not concurrently hold an executive position.

Q10

How are you addressing moves in the capital markets to evaluate companies' ESG initiatives?

We are implementing “CSR-focused management” unique to the azbil Group. As a result, our shares have been included in several ESG^{*6}-related indices.

As mentioned earlier, the azbil Group practices various policies based on its unique “CSR-focused management” approach, which transcends the notion that “CSR equals social responsibility.” In fiscal 2017, the Company was included in the FTSE4Good Index Series, a leading socially responsible investment (SRI) index, for the 11th consecutive year. We were also included as a constituent stock in ESG indices^{*7} newly selected by Japan's Government Pension Investment Fund (GPIF), one of the world's largest pension management organizations.

The inclusion of our stock in multiple ESG-related indices illustrates the high evaluation of our ongoing ESG-related initiatives under our unique CSR-focused management approach.


Recently, the spotlight has been on the Sustainable Development Goals (SDGs) adopted by the United Nations. Since our establishment, we have emphasized our “human-centered” perspective and actively sought to resolve global envi-

ronmental and other social issues. We believe there is a high correlation between these activities and the SDGs.

Rather than engage in small-scale initiatives to address ESG-focused trends in the capital markets, we believe that benefiting society through our core business—based on our Group philosophy of “human-centered automation”—will lead to both better ESG outcomes and achievement of the SDGs. With this in mind, we will fully demonstrate our approach to practicing CSR-focused management in a sincere manner, and thus earn recognition of the azbil Group's growth potential and sustainability. As a result, we will continue striving to remain included in various ESG-related indices.

^{*6} ESG: A collective term covering three elements—environment (E), social (S), and governance (G)—that is used to determine a company's ability to grow in a sustainable manner. It is often used for reference as an investment indicator.

^{*7} ESG indices: FTSE Blossom Japan Index, etc.

 Please refer to “SDG Initiatives” on pages 70-71 for more information about SDGs.

Q11

What is your performance outlook for fiscal 2018?

We will target further record-high earnings by stepping up business strategy implementation and profitability improvement.

In fiscal 2017, the first year of our medium-term plan, we achieved better results than planned, thanks to the significant progress of our business measures and profitability improvement efforts, buoyed by a robust business environment. In fiscal 2018, as well, we expect domestic and overseas business conditions to remain favorable. Based on this assumption, we will step up business measures and efforts to improve profitability that produced good outcomes in fiscal 2017. At the same time, we will make forward-looking investments—including in R&D and enhancement of our production system—aimed at establishing a business foundation to permit sustained future growth. As a result of such investments, we forecast an 8.2% year-on-year increase in operating income, to ¥26.0 billion—another record-high figure following fiscal 2017—as well as a 2.5% rise in net sales, to ¥267.0 billion.



Financial Targets and Non-Financial Priority Initiatives

Financial Targets

| | Operating Income | Net Sales | ROE |
|----------------------------|-----------------------|----------------------|--------------|
| Long-term targets (FY2021) | ¥30.0 billion or more | About ¥300.0 billion | 10 % or more |
| Medium-term plan (FY2019) | ¥25.0 billion | ¥270.0 billion | 9 % or more |

Non-Financial Priority Initiatives

Entrench Basic CSR

P.66

We will strive to prevail for a long time without sacrificing social trust and corporate value, by fulfilling our fundamental obligation to perform as a member of society.

1. Promote systematic CSR and practice the PDCA cycle across the entire azbil Group
2. Raise awareness of compliance issues and encourage corresponding action
3. Expand internal control system to entire group and strengthen comprehensive risk management system

Strengthen Corporate Governance

P.58

Promote efficient, highly transparent management in order to ensure accurate, swift decision-making and business operations for sustainable growth and thus earn the trust of the capital markets.

1. Strengthen the supervision and auditing functions, including by appointing and increasing the number of independent outside officers
2. Make various efforts to strengthen management transparency and soundness
3. Make efforts to clarify responsibility system related to corporate governance management and promote dialogue

Business Management that Values People

P.54,P.78

Foster diverse human resources who can make "a company that never stops learning" a reality, and establish environments enabling all people to fully demonstrate their abilities, in order to raise employee motivation and achieve sustained company growth.

1. Nurture human resources according to theme (global, diversity, solutions, etc.) in order to flexibly address changes in the business environment
2. Implement various personnel policies emphasizing both "work-style reforms" and "diversity promotion"
 - Revitalize the corporate culture and improve workplace environments to realize healthy and happy lives for employees
 - Promote the active participation of women and otherwise strive to promote diversity

Environmental Initiatives

P.13,P.72

Deploy measurement and control technologies to focus on solving issues faced by customers and society (including the environment and energy) as business opportunities, while contributing to the realization of a sustainable society.

- Deploy azbil Group's unique measurement and control technologies to:
1. Reduce the environmental impact of its own business activities
 - Conserve energy and electricity using our own systems, and reduce waste, etc.
 2. Contribute to the environment through our core businesses
 - Use our control technology to make indoor environments comfortable and measurement and control technology to optimize equipment and facility operation

Responsibility to Outside Stakeholders

P.76

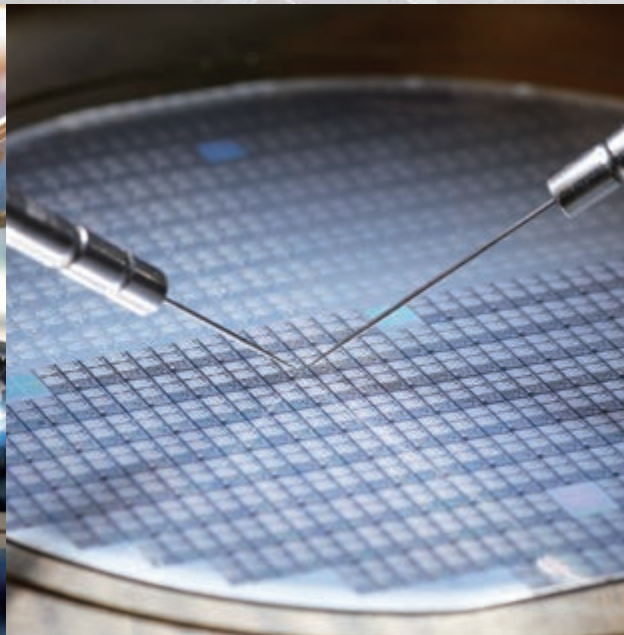
Appropriately consider our various stakeholders when engaging in management and communication activities, in order to facilitate proper corporate evaluation by the capital markets, hiring of talented people, and improving the azbil brand.

1. Return profits to shareholders and promote timely, appropriate information disclosure and active dialogue
2. Emphasize voluntary social contribution activities in addition to benefiting society through our core business
3. Provide high-quality, safe, reliable products and services to customers
4. Emphasize CSR-oriented procurement activities throughout the entire supply chain



Leveraging accumulated technology, knowledge and know-how to deliver new innovations for future society

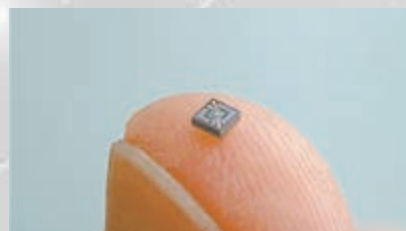
The emergence of technological innovations, such as IoT and AI, has prompted a realignment of existing product domains, including systems, applications, networks, controllers, sensors, and devices. The azbil Group is focusing on two areas: equipment that performs various onsite measurements of buildings, factories, and plants; and applications that add value to information collected by such equipment. We are concentrating on developing core technologies and fostering human resources while working to develop products aimed at cultivating new fields of automation.



Core Technology

Intelligent Devices

—Deploying Our Strengths in Measurement Technologies



Measurement devices are the main product of the azbil Group. Our devices are fitted with our proprietary micro-electro-mechanical systems (MEMS) sensors to detect pressure, flow rate, and humidity. In order to create competitive products for the future, we must improve the performance and ensure the stable supply of MEMS sensors, which are key compo-

nents. In addition to improving MEMS sensor performance by pursuing further miniaturization, we will target advances in measurement devices and expand into new business areas beyond that, by exploring new detection principles and using new materials to develop devices that enhance product value.

Developing Applications

Fostering Engineers for the IoT/AI Era

—Deploying Our Strengths in Human Resources with Advanced Expertise

Seeking to foster the next generation of engineers for the IoT/AI era, the azbil Group formulated its “Software Engineer Development Program,” which includes the latest technology trends and practical examples. Under this program, whose members are selected cross-laterally from each department, we endeavor to strengthen the knowledge and skills necessary for realizing high value-added software and advanced engineering services.



Embracing technological innovation to open new automation fields unique to the azbil Group

Core Technology

Actuators

—Deploying Our Strengths in Control Technologies

With respect to smart actuator technologies, which represent one of the azbil Group's core technological developments, we are focusing on the development of related systems and products. For example, we are currently developing a next-generation smart robot, which is a human-friendly robot equipped with force control technology for soft handling, as well as an explore-and-learn function for carrying out precision work



even if only given rough instructions.

We will also pursue advances in fluid control technologies, notably valves and variable air volume controllers.

Applying these control technologies, the azbil Group will develop devices that operate more delicately and safely, in order to realize a society where people and machines can coexist in harmony.

Here, we introduce the azbil Group's latest initiatives aimed at opening up new fields of automation.

Topic 1

Cloud Services for Buildings: Using IoT and AI to Develop Demand-Response and Optimal Heat-Source Operational Support Systems

Our cloud services for buildings apply IoT technology to improve the efficiency of building energy management and facility management work, as well as enhancing convenience for residents.

Recently, we developed two functions by centralizing the management of information on multiple consumers (buildings): a demand response* function to adjust demand for power covering the entire site, and a function that applies AI to support the optimal operation of heat sources.

Utilizing remote control technology cultivated over many years, the azbil Group will help resolve the social challenge of ensuring the reliable supply of electric power.

*Mechanism that encourages people to limit their power consumption at peak times in order to ensure reliable power supply.

Related information: Azbil Corporation is participating in a demonstration project initiated by the Ministry of Economy, Trade and Industry. The project involves using demand response technology to build a virtual power plant. (See page 37 for more details.)

Demand response

We provide an automatic demand response system that receives signals to adjust power supply from the electricity provider and uses a network linking the cloud with its own Building Energy Management System (BEMS) to automatically control multiple energy resources.

Optimal heat source operation support

Supports optimal heat source operation through various functions, including a demand prediction function based on learning from weather information and heat source operation results, and a guidance function that displays optimal operation plans to minimize operational costs.



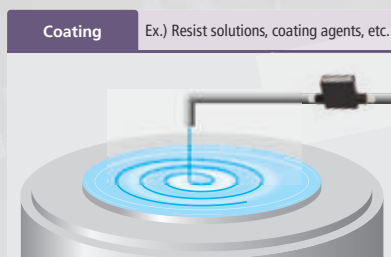
Topic 2

Release of Micro Flow Rate Liquid Flow Meter with High Measurement Performance and Usability

This micro flow rate liquid flow meter performs instantaneous measurements of liquid microflows as low as 30ml/minute or less. It combines our proprietary high-sensitivity thermal MEMS sensor with a highly corrosion-resistant quartz glass flow path, enabling it to measure liquid microflows, which is difficult using conventional methods.

Features of Micro Flow Rate Liquid Flow Meter

- Uses the thermal flow measurement principle based on MEMS sensing technology, enabling measurement of microflow rates of less than 30ml/min, which traditionally has been difficult.
- Compared with other methods, the thermal measurement method allows various types of liquid to be measured easily, because it is mostly unaffected by liquid state (including presence of bubbles and temperature changes), and makes corrections for the different thermal conductivity rates of each liquid.
- In addition to measuring liquid microflow rates, it features as standard an event output function that detects abnormalities (emptiness, air pooling) in the pipe. This, combined with IoT technology, enables better quality control of production processes and detection of process abnormalities.

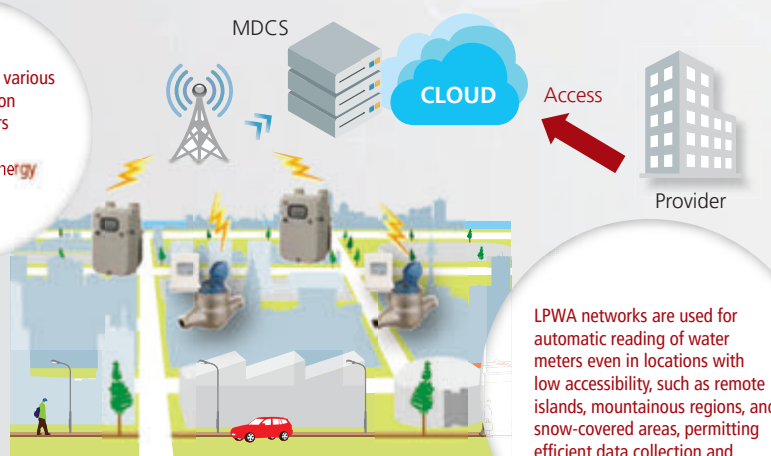


Topic 3

Using Smart Gas and Water Meters for Enhanced Solutions and LPWA to Develop Meter Data Cloud Service (MDCS)

In light of changing business conditions, such as liberalization of the energy market, Azbil Kimmon Co., Ltd. is leveraging smart technologies for gas and water meters to deliver high value-added solutions not seen before. One example is its use of LPWA* wireless communication technology and the cloud to develop an automatic meter reading system and data service.

The MDCS utilizes various kinds of information collected by meters to help customers achieve optimal energy management.



Frequent LP gas meter readings and acquisition of usage amount data make it possible to accurately determine the remaining gas volume in LP gas cylinders. By also using AI for data analysis, we can make optimal deliveries of LP gas cylinders and otherwise help enhance operational efficiency.

LPWA networks are used for automatic reading of water meters even in locations with low accessibility, such as remote islands, mountainous regions, and snow-covered areas, permitting efficient data collection and acquisition of alarm information.

*LPWA: Low Power Wide Area. LPWA is a wireless communication technology capable of long distance communication that requires significantly lower electricity compared to conventional means and is expected to be widely used in IoT.

Topic 4

Development of Next-Generation Smart Robots —Work Robots with Human-Like Movements that Overturn Conventional Robot Wisdom

Using its proprietary measurement and control technologies, the azbil Group has developed a next-generation smart robot with force sensing and visual functions. This robot has delicate craftsman-like force sensing and eyes that can consistently recognize objects. It is able to imitate complex human tasks and can make things in the same way as people do.



Transforming production sites with new technologies

Conventional production site
Production by conventional robot arm



Repeated high-speed, positional operation
→ For simple tasks

After

Site with robot system introduced
Production by azbil Group's robot system



Responds flexibly to changes in parts and environments with tactile sense and vision
→ For tasks requiring skills

Future

Robots with hidden potential will change the future of manufacturing.

With subtle movements and the ability to reproduce things, robots will bring innovation to manufacturing sites. Robots are good at assembly processes. If they can perform their tasks in a more human-like manner, robots will play an active future role in wide-ranging areas.