

# Sustainability Management

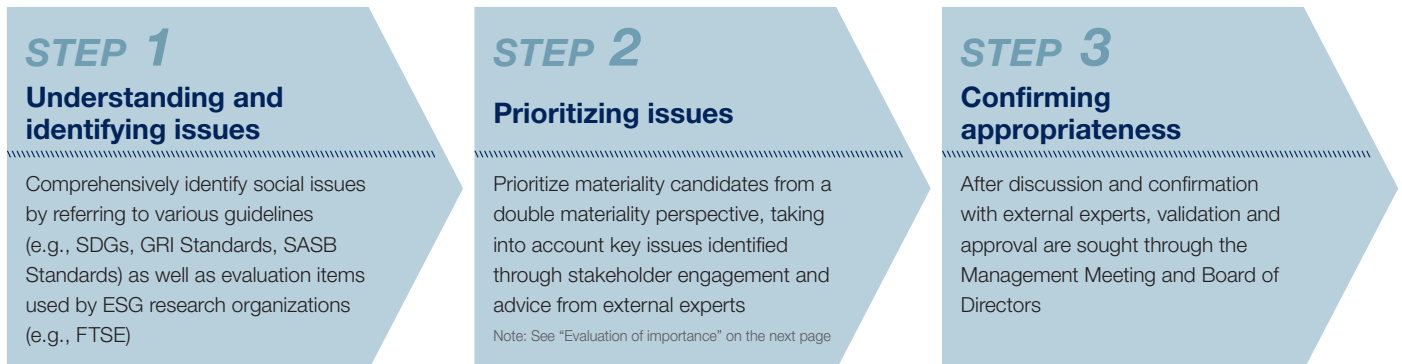
The azbil Group's core automation business can improve the quality of indoor spaces and productivity in buildings, factories, and lifeline utilities, while at the same time curbing resource and energy consumption appropriately. The expansion of our business will help reduce environmental impact on the Earth. The azbil Group will continue its efforts to contribute to global environmental preservation and "in series" to a sustainable society in accordance with the following sustainability policy.

## The azbil Group's Sustainability Policy

The azbil Group is committed to continuously enhancing enterprise value based on mutual trust with stakeholders, to realizing "safety, comfort, and fulfillment in people's lives" and contributing to global environmental preservation, and to contributing "in series" to a sustainable society. These are achieved through practicing the azbil Group's philosophy of "human-centered automation" and respecting the values to contribute to society for people's well-being based on the founding spirit of "freeing people from drudgery."

## Materiality identification process

To achieve sustainability management, we have incorporated double materiality (a concept that evaluates materiality from two aspects: financial evaluation of the impact of the environment and society on the company, and the impact of corporate activities on the environment and society) from the perspective of both opportunity and risk based on the azbil Group philosophy. In August 2022, we identified 10 material issues in five areas to be tackled over the long term. Subsequently, in FY2023, the appropriateness of these material issues was reaffirmed by the Management Meeting and Board of Directors after discussion and confirmation with external experts.



### STEP 1

Based on various guidelines (e.g., SDGs, GRI Standards, SASB Standards), social issues were comprehensively identified as materiality candidates.

### STEP 2

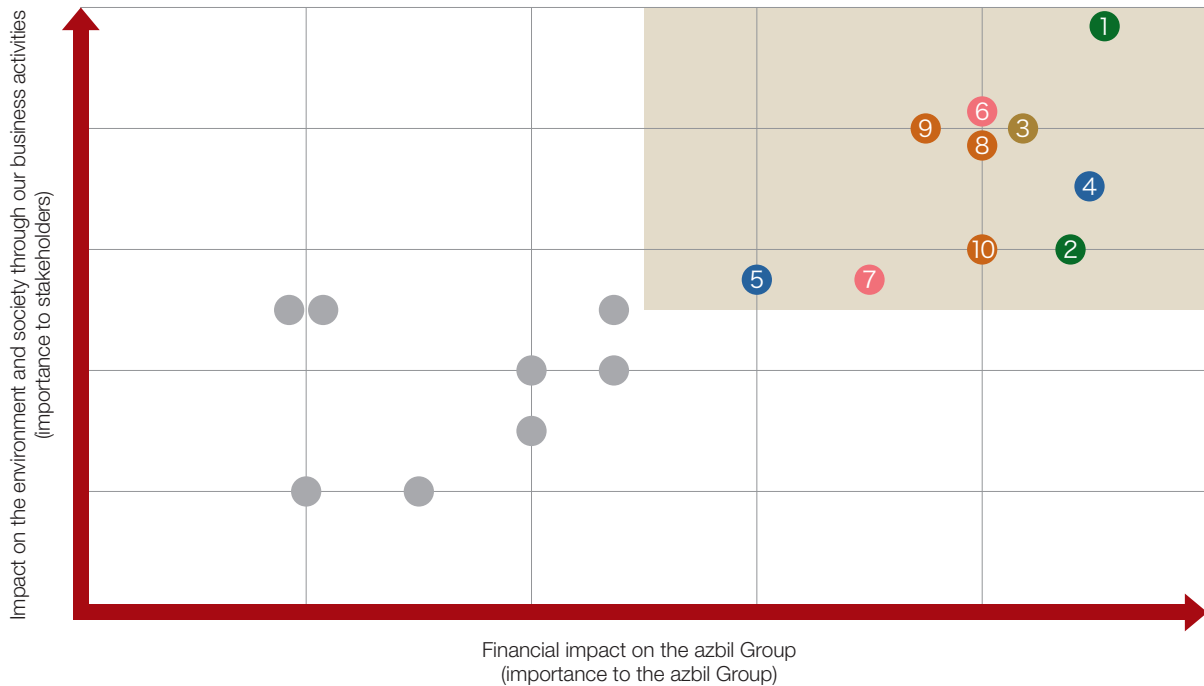
For materiality candidates, we identified opportunities and risks from the perspective of double materiality and evaluated their level of importance, taking into account several key issues obtained through various stakeholder engagements and advice from external experts.

Across five areas, we have identified materiality as 10 material issues of particular importance to the azbil Group and/or stakeholders. Among those important issues not included in this list are water resources, biodiversity, and environmental pollution.

### STEP 3

Following conferral with external experts, the Management Meeting and Board of Directors confirmed the validity of the 10 material issues and reaffirmed the azbil Group's materiality in FY2023.

## Evaluation of importance



Materiality		Our aim
Environment	(1) Climate change	Help to solve environmental problems to achieve a decarbonized society
	(2) Resource recycling	Provide environmentally friendly products and services
Innovation	(3) Innovation	Continuously seek new forms of automation to achieve a safe and comfortable society
Society	(4) Supply chain	Share CSR values (e.g., environment, human rights) within the supply chain
	(5) Contribute to local communities	Contribute to viable communities through community-based action
Human resources	(6) Human rights, safety, and health	Promote corporate activities based on “human-centered” values and health and well-being management
	(7) Learning and employee development	Develop the corporate culture as “an organization that never stops learning” and strengthen the foundations for education
Governance	(8) Product safety and quality	Provide high-quality products and services that prioritize customer safety and security
	(9) Corporate governance	Continuously raise enterprise value through highly transparent management
	(10) Compliance	Fulfill our social responsibilities based on high corporate ethics

## System to advance sustainability management

The azbil Group has a system in place to consider and pursue sustainability-related initiatives throughout the Group.

The azbil Group CSR Promotion Committee and the SDGs Promotion Committee, each supported by a committee office with specialized staff, come under the purview of the corporate executive in charge of all aspects of sustainability. Progress and issues identified at committee meetings are reported to the Board of Directors and Management Meeting.

In opportunity management, status and issues are shared by the management at company-wide business review meetings; these discussions, which look to the steady implementation of plans, play a role in strategic business development.






In risk management, in addition to the azbil Group CSR Management Meeting, the azbil Group General Risk Committee is responsible for checking on the status of all risk management activities and making policy decisions.

Note: The azbil Group CSR Promotion Committee and SDGs Promotion Committee are concerned with the azbil Group as a whole. See also the azbil ESG Databook for the details of the agenda and the frequency of each committee's meetings.



# Materiality and Essential Goals of azbil Group for SDGs

Based on the identified materiality, we have formulated specific targets for FY2030 for seven material issues, related to our business and general corporate activities, within the domain of the SDGs as the essential goals of the azbil Group for the SDGs. For the other three material issues, which are fundamental obligations that a company must fulfill to be a member of society, we have established specific goals as part of our CSR activities. We are promoting sustainability management through various initiatives to achieve these goals.

Materiality		Essential goals of azbil Group for SDGs	
		Essential goals	Targets
<b>Environment</b> 	Climate change	I Environment and Energy	<b>Solving energy-related problems (toward a decarbonized society)</b> <ul style="list-style-type: none"> <li>Effective reduction of CO<sub>2</sub> at customers' sites: <b>3.40 million metric tons of CO<sub>2</sub>/year</b><sup>*1</sup></li> <li>Reduction targets in GHG<sup>*2</sup> emissions               <ul style="list-style-type: none"> <li>- <b>55% reduction</b><sup>*3</sup> in GHG emissions from our business activities</li> <li>- <b>20% reduction</b><sup>*4,*5</sup> in GHG emissions across the entire supply chain</li> </ul> </li> </ul>
	Resource recycling		
<b>Innovation</b> 	Innovation	II New Automation	<b>So that customers can benefit from sustainable production sites and workplace environments—as well as greater safety, comfort, and fulfillment—we will solve occasional issues as required by society and create added value through advanced measurement, a data-driven approach, and autonomy in production spaces and office spaces (buildings) and living spaces.</b>
<b>Society</b> 	Supply chain	III Supply Chain, Social Responsibility	<b>Fulfilling social responsibilities with customers and business partners (expansion of azbil CSR activities aimed at sharing value)</b> <ul style="list-style-type: none"> <li>Working with our business partners on achieving the SDGs as a common goal and creating <b>shared CSR value across the supply chain</b></li> </ul>
	Contribute to local communities		
<b>Human resources</b> 	Human rights, safety, and health	IV Health and Well-being Management, An Organization That Never Stops Learning	<b>Implementing health and well-being management (job satisfaction, health, diversity and inclusion) (Creating workplaces that allow flexible work styles and a reduction in total work hours, maintaining and promoting employees' mental and physical health, and creating opportunities for diverse personnel to demonstrate their abilities)</b> <ul style="list-style-type: none"> <li><b>65% or more</b> employees<sup>*17</sup> expressed satisfaction with working at azbil Group companies</li> <li><b>Double</b> women's advancement points<sup>*18</sup> by 2024 (versus 2017)</li> </ul>
	Learning and employee development		
<b>Governance</b> 	Product safety and quality	Fulfilling our fundamental obligations to society	
	Corporate governance		
	Compliance		

\*1 The FY2030 emission factor from electricity generation is our own estimated value based on the Japanese government's Energy Basic Plan in 2019.

\*2 Greenhouse gases (e.g., CO<sub>2</sub>)

\*3 Base year: 2017

\*4 Base year: 2017

\*5 In December 2023, we submitted our application to SBTi for a new target to reduce GHG emissions by 33% by 2030 (compared with 2017).

\*6 Management that integrates into business operations such environmental activities as decarbonization, resource recycling, and biodiversity conservation

\*7 Design aimed at creating and providing products that contribute to solving global environmental issues (decarbonization, resource recycling, and biodiversity conservation)

\*8 We have set up an in-house qualification system for employees with the following specialized skills, which are considered vital for realizing solutions to issues in our three environmental priority areas

- Professionals licensed for network services, such as remote maintenance of large-scale buildings, energy management, and cloud services
- Certified professionals in the fields of advanced plant/factory control, energy-saving solution technologies, and valve maintenance

\*9 As well as contributing, through our automation technologies, to productivity improvements and stable operations at our customers' sites, we offer field engineering services that can contribute to the realization of a sustainable society by solving environmental challenges that face our customers and society in all three of our environmental priority areas (decarbonization, resource recycling, and biodiversity conservation).

# SUSTAINABLE DEVELOPMENT GOALS

	FY2023 results	References
<p><b>Environmental preservation (realization of integrated environmental corporate management*6)</b></p> <ul style="list-style-type: none"> <li>Creation and provision of eco-friendly products and services           <ul style="list-style-type: none"> <li>Design all new products to meet <b>the azbil Group's own sustainability standards*7</b></li> <li>Increase the number of <b>skilled professionals*8 for supporting sustainable services*9</b> provided by the azbil Group to <b>a total of 1,800*10</b> –triple the number in FY2021</li> </ul> </li> <li>Effective use of natural resources*11 and reduction of waste generation           <ul style="list-style-type: none"> <li>Design all new products to be <b>100% recyclable*12</b></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Effective CO<sub>2</sub> reduction at customers' sites: 2.84 million metric tons of CO<sub>2</sub>/year</li> <li>GHG emissions (scopes 1+2): 40% reduction from FY2017</li> <li>GHG emissions (scope 3): 20% reduction from FY2017</li> <li>The azbil Group's unique sustainable design implemented for all new products</li> <li>760 employees with professional skills</li> <li>100% recyclable design implemented for nearly 10% of new products, and 75% recyclable design for nearly 50% of new products</li> </ul>	<p>Environment ▶ pp.67–74</p> <p>Expanding professional human resources with a KPI for sustainable services ▶ pp.33–34</p>
<ul style="list-style-type: none"> <li>We will achieve a state of resilience to changes in the business environment at <b>8,000 business sites*13</b> by 2030.</li> <li>We will provide environments that support stress-free and diverse work styles to <b>6 million people*14</b> by 2030.</li> </ul>	<p>Developed a control valve maintenance support system, an online anomaly detection system, cloud-based services for large buildings, smart metering as a service, etc.</p> <ul style="list-style-type: none"> <li>Contributed to the business environment of a total of 927 business sites (+120 sites YoY)</li> <li>Contributed to the residential and office environments of 861,000 people (+102,000 ppl. YoY)</li> </ul>	<p>Control valve maintenance support system ▶ pp.31–32</p> <p>Digital Transformation (DX) ▶ pp.49–50</p>
<p><b>Invigorating local communities (contributions around our business sites)</b></p> <ul style="list-style-type: none"> <li>Social contribution activities rooted in local communities are run at all our business sites,*15 with the <b>active participation of every employee.*16</b></li> </ul>	<ul style="list-style-type: none"> <li>Largely completed human rights due diligence to improve our business partners' safety and health management, etc.; raised awareness and requested our business partners to reduce CO<sub>2</sub> emissions. Currently expanding activities across the entire azbil Group.</li> <li>Promoted employee participation in sponsored events and educational support activities in neighborhoods near business sites, and conducted collaborative activities with the Azbil Yamatake General Foundation.</li> </ul>	<p>Supply Chain ▶ pp.75–78</p> <p>Stakeholder Engagement ▶ pp.95–96</p>
<p><b>Developing and strengthening “an organization that never stops learning” (Expanding opportunities for globally active employees to continue education and opportunities to learn with stakeholders)</b></p> <ul style="list-style-type: none"> <li><b>65% or more</b> employees*17 experienced personal growth over the past year</li> <li><b>Double</b> training opportunity points*19 by 2024 (versus 2012)</li> </ul>	<ul style="list-style-type: none"> <li>Increased women's advancement points to 2.3 times</li> <li>Achieved 57% of employees who find satisfaction in working in the azbil Group</li> <li>Increased training opportunity points to 5.5 times (breakdown: in-person training: 1.8 times; online training, e-learning, and others: 8.1 times)</li> <li>Achieved 59% of employees who have experienced personal growth over the previous year</li> </ul>	<p>Human Capital ▶ pp.61–66</p>
<ul style="list-style-type: none"> <li>With regard to product safety and quality, and compliance, the azbil Group CSR Promotion Committee sets indicators and goals directly related to business with a CSR activity plan for each department.</li> <li>With regard to corporate governance, in 2022 the company transitioned to a three-committee board structure, and is working to ensure appropriate supervision and effectiveness under a system of a Board of Directors with a majority of outside directors and three statutory committees.</li> </ul>		<p>Corporate Governance ▶ pp.81–94</p>

\*10 Total number of qualified personnel including those who have acquired multiple professional skills (counted separately for this purpose) to adapt to emerging technological innovation in field engineering services

\*11 A general term for materials and energy found in nature that can be used to support human lifestyles and production activities

\*12 Best Available Technology (BAT) refers to the most effective technology that is both economically and technologically viable.

\*13 As of April 2022, 530 business sites were in operation. The aim is to increase this 15-fold to 8,000 by 2030.

\*14 Provided to 600,000 people, as of April 2022. The aim is to increase this 10-fold to 6 million people by 2030.

\*15 All offices, both in Japan and overseas

\*16 The azbil Group aims to participate in activities of a scale that can accommodate the total number of employees.

\*17 We aim to achieve 65%, which is considered a high level, in the azbil Group's annual employee satisfaction survey conducted in Japan, or, in other words, 2/3 of all employees.

\*18 Points tallied internally, with weight given based on the role, such as company executive, officer, and manager

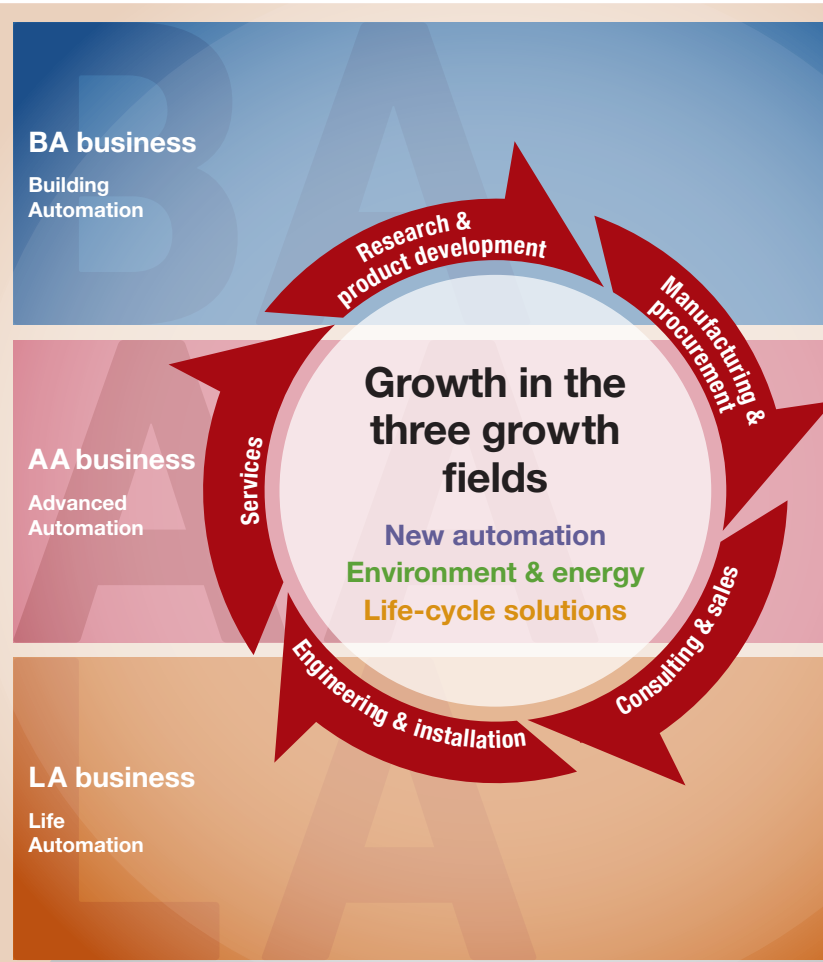
\*19 Points tallied internally for participating in opportunities to learn with stakeholders (frequency or number of employees)

# Value Creation Model

Societal issues	Diversification of society and individuals	Technological innovation	Environmental issues, risk of epidemics	Demographic change (working population)
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Code of Conduct	Materiality	Essential goals of the azbil Group for the SDGs	Source of value creation
	<b>Environment</b>	<b>I Environment and Energy</b> Preserving the Earth's environment and solving energy-related problems through cooperative creation	<b>Human capital</b> 9,909 employees (as of March 31, 2024) 170,000 Azbil Academy attendees*1 2,743 individuals*2 earned official qualifications
	<b>Innovation</b>	<b>II New Automation</b> Realizing sustainable production sites, work environments and a safe and comfortable society through new automation	<b>Social and relationship capital</b> Sales and service bases in 23 countries and regions: 13 domestic companies, 45 overseas companies
	<b>Society</b>	<b>III Supply Chain, Social Responsibility</b> Fulfilling our responsibilities to society across our supply chain and contributing to local communities	<b>Intellectual capital</b> R&D expenses: ¥50.8 billion (FY2021-23 results and FY2024 plan) R&D site capital investment: Construction expenses ¥7.1 billion (FY2021-22 results) Patents: 2,862 (as of March 31, 2024)
	<b>Human resources</b>	<b>IV Health and Well-being Management, An Organization That Never Stops Learning</b> Strengthening our foundation to solve societal problems through health and well-being management and continuous learning	<b>Manufacturing capital</b> Factories: 10 domestic, 9 overseas
Guiding Principles	<b>Governance</b>	<b>Fulfilling our fundamental obligations to society</b>	<b>Natural capital</b> Total energy use*3: 69,897 MWh Total water use*4: 127 million L
	<b>Governance</b>		<b>Financial capital</b> Total assets: ¥313,728 million (as of March 31, 2024)
Group philosophy			



## Foundations supporting our business

Environment	Social
Environment → p.67-	Human capital → p.61- Supply chain → p.75-
Governance	
Corporate governance → p.81-	

\*1 Courses include general subjects such as CSR and online electives. The student total includes personnel of business partners and others in addition to Group companies.  
\*2 The total given for official qualifications obtained includes only qualifications considered to be important for business operations.

**Changes in customers**

Changes in office use; wellness concerns

Advances and diversification in buildings, production facilities, and infrastructure

Expanded need to save energy and cut CO<sub>2</sub> emissions

Fewer skilled workers, need for skill transfers

Aging infrastructure, safety assurance

**OUTPUT**

**Medium-term plan focus**

**OUTCOME**

**BA systems**



**For: building owners, construction industry**

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

**Valves, controllers**

Sensors, measuring devices

**Valves, positioners**



**For: manufacturers**

Petrochemicals, chemicals, oil refining, electric power & gas, iron & steel, waste management, water supply & sewage, pulp & paper, ships, food, pharmaceuticals, automobiles, electrical & electronics, semiconductors, various manufacturing equipment

**Controllers, sensors**



**Monitoring & control systems**



**Pharmaceutical manufacturing equipment**



**For: gas companies, local governments, pharmaceutical manufacturers, house builders**

City gas, LP gas, water supply, pharmaceuticals, homes

**Gas & water meters**



**Risk management → p.79-**

**In FY2021-24 accelerate transformation by strengthening:**

- Product competitiveness**
- Technological development, capital investment**
- Investment in human capital**

**Long-term targets and medium-term plan → p.35-**

**Contributing to the SDGs through our business**

- Effective reduction of CO<sub>2</sub> at customers' sites
- Reduction targets for greenhouse gas emissions (scopes 1+2) (scope 3)
- Design all new products to meet the azbil Group's own sustainability standards
- to be 100% recyclable
- Achieve a state of resilience to changes in the business environment at 8,000 business sites
- Provide environments that support stress-free and diverse work styles to 6 million people
- Increase the number of skilled professionals for supporting sustainable services provided by the azbil Group to a total of 1,800—triple the number in FY2021

**Financial targets (FY2030)**

- Net sales ¥400 billion range (Overseas: ¥100 billion range)
- Operating income ¥60 billion range
- Operating income margin Approx. 15%
- ROE Approx. 13.5%

**Value provided to stakeholders**

**Safety**  
Living and working with health and safety

**Comfort**  
Always living and working in comfort

**Environment**  
Optimizing the management and usage of energy

**Fulfillment**  
Creating new value with customers

**Economic value**  
Redistributing added value to stakeholders through sustainable growth, increased enterprise value, and returns

**Contributing to a sustainable society**

DNA of Value Creation

Message from Management

Value Creation Story

Business Strategy for Value Creation

Innovation Strategy for Value Creation

Core Strategy for Supporting Value Creation

Corporate Governance

Stakeholder Engagement

Corporate Data

\*3 Scope: Azbil Corporation and consolidated subsidiaries

\*4 Scope: Azbil Corporation, domestic consolidated subsidiaries, and major overseas production bases

# The Six Capitals

## Operational Resources and the Source of Value Creation at the azbil Group

### Human capital

Assisting growth and creating value via diverse human resources

Number of employees (consolidated)

**9,909**

(as of March 31, 2024)

Azbil Academy attendees

**170,000**

Individuals who earned official qualifications

**2,743**

### Social and relationship capital

Creating value through relationships of trust and cooperation with various stakeholders

Sales and service bases in

**23** countries and regions:

**13** domestic companies,

**45** overseas companies

### Intellectual capital

Strengthening our ability to produce products and services that address the issues facing society and our customers

R&D expenses:

**¥50.8 billion**

(FY2021–23 results and FY2024 plan)

Capital investment to strengthen R&D site functions:

Construction expenses **¥7.1 billion**

(FY2021–22 results)

Patents:

**2,862**

(as of March 31, 2024)

#### Promoting health and well-being management and creating unique value via diverse human resources

We define “health and well-being management” as comprehensive efforts to achieve work-style reforms and promote diversity. We strive to create a workplace environment where diverse human resources can flourish globally and work to create value. We aim to achieve continuous growth through competitiveness stemming from diverse human resources and renewed organizations and environments, ultimately attaining well-being for both society and our employees.

→ pp.61–66 Human Capital

#### Employee benefits and financial measures to improve employee engagement

We share our sense of values and promote various initiatives, including financial measures, to ensure that everyone can work to create value. We also revised our stock compensation plan for employees to enhance employee benefits and further strengthen its link with the company's stock price and financial performance.

→ pp.19–22 Message from the Deputy President

#### Collaboration/co-creation with customers and partner companies

We have sales and service bases around the world to deliver solutions that respond to the needs of various regions and markets. To address various needs, including the resolution of societal issues, we produce new solutions and businesses by utilizing and integrating mutual technologies and knowledge via co-development with customers, as well as joint research and business partnerships with universities and venture companies.

→ pp.41–42 Building Automation (BA) Business

→ pp.47–48 Global Strategy

#### Environmental conservation and respect for human rights across the entire supply chain

We also set our own unique SDG targets and work together with our business partners to fulfill our social responsibilities, including environmental conservation.

→ pp.19–22 Message from the Deputy President

#### Continued investment and enhanced human resources in development to advance measurement and control technologies

We continue to strengthen the functions and improve the development environment of the Fujisawa Technology Center. This enables us to use that research and development base to further advance measurement and control technologies, which are among the strengths of the azbil Group. We are also utilizing a talent management system and other measures to secure and cultivate human resources.

→ pp.51–56 Research and Development

#### Creating added value via the promotion of DX

In addition to developing diverse products utilizing the cloud, we are promoting in-house efficiency measures that leverage generative AI. For example, our control valve maintenance support system (see photo) has been adopted by numerous customers and has a strong track record.



→ pp.31–34 azbil Group Solutions Supported by Advanced Technologies and Human Resources

→ pp.49–50 Digital Transformation (DX)

The azbil Group aims to contribute “in series” to the achievement of a sustainable society and continuously enhance its enterprise value. As we work towards our long-term targets and medium-term plan, we focus on strengthening our product competitiveness (products and services), strengthening technological development and capital investment, and promoting sustainability management through increased investment in human capital. Additionally, we are committed to continuously improving the six types of capital, which are the source of our value creation.

### Manufacturing capital

Sharing advanced production technologies across the group globally

Factories:

**10** domestic

**9** overseas

#### Building a global production system centered on a mother factory

By linking the Shonan Factory and Fujisawa Technology Center as our “mother factory,” we have established a global production system and are deploying advanced production technologies.

#### Enhancing our global production bases

To expand our global business and mitigate geopolitical risks, we are expanding and dispersing our production bases. In FY2023, we expanded our production base in Thailand (see photo, completed in April 2024) in addition to our factory in Dalian, China.



→ pp.57–58 Manufacturing and Procurement

### Natural capital

Reducing our own environmental impact and assisting in efforts to reduce the environmental impact at customer sites

Total energy use

**69,897** MWh

Total water use

**127** million L

#### Decarbonization transition plans and CO<sub>2</sub> emission reduction at customer sites

We have formulated a decarbonization transition plan aimed at achieving net zero by 2050. We offer products and services that help our customers reduce CO<sub>2</sub> emissions at their sites.

#### Creating and providing environmentally friendly products

We have set our own SDGs targets and are working to provide sustainable products (including services and solutions) that contribute to solving global environmental issues, such as decarbonization, resource recycling, and biodiversity conservation, for our customers and the society.



→ pp.67–74 Environment

→ pp.31–34 azbil Group Solutions Supported by Advanced Technologies and Human Resources

### Financial capital

Allocating resources with a focus on ensuring capital efficiency and maintaining a sound financial base

Total assets

**¥313.7** billion

(as of March 31, 2024)

#### Promoting ROIC management with a focus on capital costs

To maintain a disciplined financial policy with a focus on capital costs, we set and commit to ROE targets. We then promote business management that incorporates ROIC to allocate capital rationally.

#### Rebuilding our business portfolio in the LA business

We have utilized ROIC to implement measures to optimize our business portfolio. Because our LA business was facing declining profitability, we decided to transfer all our equity interests in Azbil Telstar, a company in the field of life science engineering, to a third party.

→ pp.19–22 Message from the Deputy President

→ pp.45–46 Life Automation (LA) Business



## Special Feature

# azbil Group Solutions Supported by Advanced Technologies and Human Resources

Creating unique added value by combining leading technologies with human resources and knowledge in the fields of engineering and services

In recent years, as our business environment is dramatically changing due to climate change, the aging society in Japan, the diversification of individuals and society including work styles, and increased need for safety and peace of mind caused by the spread of COVID-19, our customers are also transforming their own business models and addressing new issues that arise. We believe that the value and role of the automation business is to be able to support transformation and help solve such issues facing our customers and society. As new issues arise, the role that automation can play expands, so do the opportunities for business. The azbil Group will focus on the three growth fields of *new automation*, *environment and energy*, and *life-cycle solutions*, where we can leverage our unique products and services based on automation technology.

To provide optimal solutions to our customers and society in these three growth fields, it is essential to have a high level of engineering and maintenance service capability, as well as advanced automation devices and systems. In addition to the intellectual capital that the azbil Group holds, such as microelectromechanical systems (MEMS) and AI technologies, human capital such as our technical developers and field service engineers support and characterize the unique solutions that we provide.

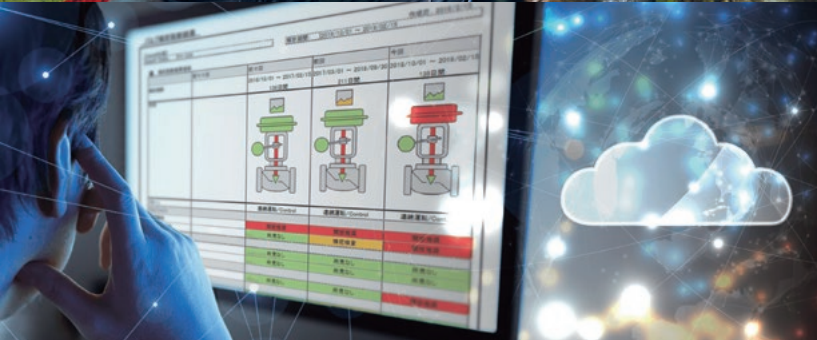
One example of this is our control valve maintenance support system for cloud-based valve analysis and diagnosis, which adopts aspects of both the *new automation* and *life-cycle solutions* fields to provide a unique azbil Group service that integrates advanced technologies with valve technologies and expertise that we have accumulated in the field over long years. Our “new automation” aims to provide upgraded safety and security, as well as reliability. This service visualizes valve health for the early detection of failure signs that were not previously detectable, in order to contribute to safe and stable operation and optimal maintenance at plants. It has been well-received by our customers and is being increasingly adopted.

## Control valve maintenance support system

### Utilizing our leading technologies as a valve manufacturer to contribute to safe and stable operation and the optimal maintenance of valves

Valves control the flow rate, pressure, temperature, and liquid level at petroleum plants, chemical plants, and factories manufacturing iron and steel, pulp and paper, food, and pharmaceuticals. A problem with a valve could cause production to stop, or even an accident such as a plant explosion that has the potential to cause tremendous loss. That is why the valves used at plants and factories require long-term safe and stable operation, and periodic inspection and adjustment are required to ensure such operation. However, frequently checking a large number of valves manually over a wide area takes a lot of time and money. Our control valve maintenance support system solves such issues. The azbil Group analyzes valve health via technology that detects valve problems and deterioration based on information and data accumulated at customer sites (in the field) over long years, and enables that information to be viewed on a cloud service 24/7. Valve operation data is automatically sent to the cloud and analyzed, which enables customers to check the results of valve health checkups when needed, as needed, and where needed. This enables the early detection and prediction of valve problems, which was previously only possible by overhaul inspection, and helps prevent problems from occurring, thereby contributing to the stable operation of production facilities.

It was previously possible to use a diagnosis tool to monitor valve health, but data analysis and diagnosis required experience and expertise, and customers were required to operate the diagnosis tool and perform diagnosis themselves, which placed a significant burden on the customers. Our control valve maintenance support system visualizes diagnosis results on a dashboard, which enables valve health to be checked at any time, without requiring special skills or knowledge for analysis or diagnosis. Users can easily plan optimal maintenance via condition-based maintenance (CBM).



**The results of valve health checkups are provided in three ways**

**When needed**

**Check when a potential valve error is detected or when proposing a maintenance plan**

**As needed**

**Check via e-mail, web dashboard, or report**

**Where needed**

**Check at office, on-site, or via telecommuting**

**Example of customer adoption**

**Initiatives to seek a new way of maintenance: condition-based maintenance (CBM)**

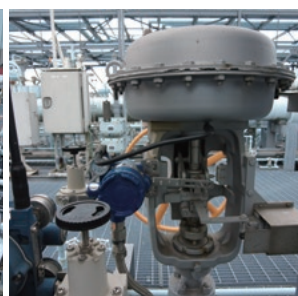
**HIBIKI LNG Co., Ltd. (part of the Saibu Gas Group)**

**Achieving more effective CBM via valve diagnosis technologies**

HIBIKI LNG previously performed time-based maintenances (TBM) when conducting valve inspections at its major plants, which involved temporarily stopping the plant to check for valve deterioration with the valves released. By adopting the control valve maintenance support system, the company can check weekly reports on valve health on the web and swiftly identify the state of deterioration without the need to overhaul the valves. By performing CBM based on the reports of the control valve maintenance support system instead of TBM, HIBIKI LNG aims to reduce valve inspection time and achieve faster failure detection. By utilizing periodic reports, the company can reduce the time spent on maintenance planning, make maintenance more efficient, and improve plant productivity.



HIBIKI LNG Co., Ltd.



The HIBIKI LNG site and Azbil's smart valve positioner comprising the control valve maintenance support system

**Mitsubishi Gas Chemical Company, Inc.**

**Control valve maintenance support system adopted at three production sites (in Niigata, Kashima, and Naniwa)**

**Contributing to achieving a “smart factory” that enables advanced stability and safety**

Mitsubishi Gas Chemical Company started its SMART-MGC project for utilizing digital technologies to optimize and improve the efficiency of the production department and related departments based on its Group UP 2023 medium-term management plan. The project aims to achieve a “smart factory” that enables advanced stability and safety at the production department, which was difficult to achieve with conventional methods. As part of these efforts, the company was previously using the control valve maintenance support system from Azbil to swiftly detect malfunctions caused by foreign matter infiltrating the inside of control valves and review the way that control valves are used in order to control processes with stability. Mitsubishi Gas Chemical Company has now adopted our control valve maintenance support system to more swiftly identify and detect the cause of control valve errors with the aim to prevent unexpected problems before they occur. The company plans to further expand the range of the control valve maintenance support system to migrate from TBM to CBM for control valve maintenance, and thereby optimize maintenance schedules and costs.



Sending control valve operation data to the cloud to formulate control valve maintenance plans with CBM

## Integrated system covering everything from technological development to engineering and services

Services such as the control valve maintenance support system are made possible by our integrated structure covering everything from technological development to engineering and services. We define three growth fields: *new automation*, *environmental and energy*, and *life-cycle solutions*. By promoting efforts in these growth fields with a shared foundation of automation technology, we at the azbil Group will achieve growth in the Building Automation (BA), Advanced Automation (AA), and Life Automation (LA) businesses. We expect active investment to continue in the new automation fields, which provides solutions to meet new needs, such as wellness in building environments and advanced manufacturing at production sites. Additional investment that goes further than energy-saving is expected in the *environmental and energy* field, such as that for achieving carbon neutrality.

The types of solutions required in the growth fields are as diverse as the issues facing our customers and society. In addition to providing new products, we need to perform maintenance and renovation for decades into the future, according to the status of the customer assets (facilities and devices).

We have an integrated system that encompasses technological research and product development, manufacturing and procurement, consulting and sales, engineering and installation, and services and maintenance. This enables our professional human resources well-versed in customer sites to provide optimal solutions according to the status of customer assets, via the sharing of on-site issues and close coordination. To respond to various needs at each stage of the life cycle (planning, operation, maintenance, improvement, and renewal), our highly competent sales engineers, system engineers, field engineers, and service engineers work to provide optimal solutions at various sites around the world. In addition to advanced devices and systems, the structures and human resources that enable us to provide solutions at actual customer sites characterize the solutions of the azbil Group.



### Expanding professional human resources with a KPI for sustainable services

The azbil Group considers the development and skill transfer of human resources active in the field to be one of its strengths, and utilizes that to focus on contributing “in series” to the achievement of a sustainable society. That is why in May 2024, we defined a new quantitative indicator to “increase the number of skilled professionals for supporting sustainable services provided by the azbil Group by 300% compared to FY2021 to a total of 1,800 people\*1” to achieve the concrete target of “creation and provision of eco-friendly products and services” for “Environment and Energy,” which is one of the unique fields that the azbil Group works on for achieving the SDGs. We also aim to contribute “in series” to the achievement of a sustainable society by achieving value creation unique to the azbil Group from the perspective of business and human resource development and growth, via efforts for achieving SDG targets. This new indicator will enable us to develop human resources to support our field engineering service that contributes to achieving a sustainable society, and thereby help customer sites achieve improved productivity and stable operation via automation technologies. We will also promote the provision of environmentally friendly products and services in all three of the azbil Group’s environmental priority areas (through decarbonization, resource recycling, and biodiversity conservation).

\*1 Total number of qualified personnel includes cases where an individual employee has acquired multiple professional skills (counted separately for this purpose) in the process of mastering new technologies for our field engineering service.



## Sales, engineering, and installation

We share the various issues and needs of customers at building, plant, and factory sites, propose solutions based on analysis, and then provide solutions via an integrated structure that extends from system design to actual on-site installment and adjustment. For example, the building air-conditioning control provided by our BA business faces various issues stemming from regional characteristics and the facilities' intended use such as offices. We propose everything from an optimal BA system to energy-saving solutions according to the intended use of facilities and how they are operated, based on actual operation data and expertise accumulated by the azbil Group data over long years. We then achieve control as desired by our customers, by providing on-site engineering and installation management that considers the safety, quality, and cost of processes. Customers at manufacturing sites also have various demands for our AA business, and these demands are dramatically changing in line with changes in technology trends, such as IoT. We continually seek solutions to issues together with our customers so that we can propose the optimal products and applications in everything from the system construction at factories and plants to the proposals for improving manufacturing processes and saving energy.

## Maintenance services

Our service engineers, who are well-versed in the facilities and systems at the buildings, plants, and factories of our customers, conduct periodic inspection and maintenance to achieve optimal operation and swiftly respond to problems in the event of an emergency. By swiftly and surely sharing customer opinions within the azbil Group and reflecting them in our products and services, we improve efficiency and the value of on-site work. We are also promoting a transformation from conventional labor-intensive services to knowledge-intensive services that focus on proposing solutions based on a wealth of data and experience. To provide services with the same level of quality as in Japan, we are maintaining and enhancing our systems and promoting human resource development. We aim to contribute to achieving the quality, cost, delivery, safety, and environment (QCDSE) targets of our customers through human resources with experience and exceptional skills and a foundation for providing engineering services via DX.

The azbil Group's Essential Goal I for the SDGs (for FY2030)

Environment and Energy

**Increase the number of skilled professionals for supporting sustainable services provided by the azbil Group to a total of 1,800—triple the number in FY2021**

### ► Sustainable services

As well as contributing, through our automation technologies, to productivity improvements and stable operations at our customers' sites, we offer field engineering services that can contribute to the realization of a sustainable society by solving environmental challenges that face our customers and society in all three of the azbil Group's environmental priority areas (decarbonization, resource recycling, and biodiversity conservation).

### ► Professional skills

We have set up an in-house qualification system for the following staff with specialized skills considered vital for realizing solutions to issues in our three environmental priority areas:

- Professionals licensed for network services, such as remote maintenance of large-scale buildings, energy management, and cloud services
- Certified professionals in the fields of advanced plant/factory control, energy-saving solution technologies, and valve maintenance

