ENVIPRO
Envipro Holdings Inc.

Make a Circle of Joy

# Sustainability Report 2022












# Make a Circle of Joy

As a leading company in the resource recycling business, we aim to contribute to create a sustainable society. We collect and recycle unneeded items that can be reborn as resources.
This circulation supports someone's social life and leads to joy of somebody.
This practice brings us joy as well, and that force drives us toward the future.
Our mission lies in continuing to fulfill our responsibilities and in consistently pursuing the resource recycling business, which has been our core business since our founding.
As a group of leading companies in resource recycling, the ENVIPRO Group is a needed presence.
We are convinced that our continued growth will lead to the achievement of a sustainable society.
Together with all our stakeholders, we will continue to make a circle of joy.
That is the hope of the ENVIPRO Group, and our promise to the future.











## Mission Statement

# Contribute to Create a Sustainable Society

The ENVIPRO Group's mission is

"Contribute to create a sustainable society."

The Group contributes to society through its business,

which defines its reason for being.

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# Corporate Philosophy

## Creative Company

Engage in the ongoing creation of businesses that society needs

**Engage in everyday work in the spirit with which the company was established**

**Create new businesses in the spirit of the founder for generations to come**

**Every employee to exert efforts to become the leading player of a business that suits them**

## Circular Company

Help others, get the best out of others, and share with others to make a constant loop of joy

**Help each other and lend a hand to others to make your work more pleasant**

**Use every material repeatedly, preserving their value for as long as possible**

**Share the profit and joy with the people you live with**

## Company Pursing Virtue

Pursue the virtue of companies and people, in perpetuity

**Don't choose the easy path but choose the path which serves others**

**Do what others don't do by taking advantage of your distinctive qualities**

**Be grateful for your life and don't be arrogant**

*Supervised by Yoshiharu Shimizu, Mirai Design Institute, Enishiya
Established on March 20, 2004

## The Key Values of the ENVIPRO Group, and Its Corporate DNA

Around 2000, the business environment began to undergo major changes. A growing awareness of a circular economy society and environmental issues spurred an understanding about the need for recycling and the establishment of various laws and regulations. The ENVIPRO Group is growing at an increasing rate. We are changing rapidly, and our employees is growing and beginning to expand across regions.

Around that time, I began to feel a vague sense of anxiety. Even though the company was beginning to develop well, I rediscovered what I had been searching for so long–that something that had been missing. The tree grows, and the trunk grows, and the roots that support it need to grow bigger.

In 2004, we established our corporate philosophy, rooted in a strong sense that we lacked a solid philosophy and principles that would remain unshaken by surface changes. We spent about a year weaving together the founder's life philosophy, principles, and the habit of saying, the life philosophy and thoughts of the executives, and other ideas inherent in the Company and making them all explicit.

This is how we have developed our corporate philosophy, our "most valuable idea." It serves as our code of conduct and will remain intact no matter how much the environment around us changes. We anticipate a permanence that will last for the next 2,000 years.

**Editorial Policy**
This sustainability report is issued by ENVIPRO HOLDINGS Inc. The report describes the corporate philosophy of the ENVIPRO Group and our overall activities in non-financial areas including business strategies, environmental performance, and corporate governance. Some business prospects, including future plans, are also presented here.

**Scope of Report**
The report presents the activities of ENVIPRO HOLDINGS Inc. and the following nine subsidiary companies: ECONECOL Inc., NEWSCON Inc., 3WM Co., Ltd., Kuroda Recycle Co., Ltd., SYN ECO Inc., ASTOCO Inc., Toyo Rubber Chip Co., Ltd., Bright Innovation Co., Ltd., VOLTA Inc.

**Reporting Period**
July 2021 to June 2022 (The report covers some activities and plans outside this period.)



Message from the President

# The world is making major moves to become carbon neutral by 2050.

The formation of a circular economy society has been increasingly highlighted as a means of achieving carbon neutrality. A concrete and effective means to achieve this is to implement a circular economy within society.

To this end, we have identified three material items (priority issues). The first is “increasing demand for green materials in the supply chain.” Specifically, this refers to “increased demand for ferrous scrap due to expansion of electric furnaces,” “increased demand for nonferrous metals and minor metals in line with electrification,” and “promotion of advanced resource recycling for waste plastics.”

The second is “reducing labor required in the production process, promotion of data utilization in business activities.” More efficient production that requires less labor is associated with lower greenhouse gases (GHGs). In addition, in the circular economy, it is necessary to accurately grasp the circulation of objects through the use of data.

The third is “investment in human resources to promote business activities.” Over the medium term, we plan to cultivate 100 business promoters. This will enhance the sharing of our corporate philosophy, which acts as the roots that support the company. Through hiring, training, and retention, we plan to cultivate executives, specialists, and generalists.

The core of our business is to solve problems that will help realize a circular economy society. Accordingly, our company’s growth and its contribution to society move in lockstep. As social contribution is an extension of my own business motivations, I am committed to the growth of the ENVIPRO Group.

Of course, we will work with our employees to enjoy this challenge to the fullest.

**Sekkyoku Ikkan**
(means “always be positive”,
the word of Tempu Nakamura)

**Forward, MYWAY forward.**

**Tomikazu Sano**
President, Representative Director

Top Management Interview

# Our strengths have emerged out of a single desire: to make people happy.

## Our Strengths

My father founded this company. By following his example, I have worked with the sole intention of making him, and by extension, others, happy. In 1985, my father passed away, and I became president. That was around the time of the Plaza Accord, which led to a recession and a strong yen. Since that time, we have overcome the effects of various economic waves.




Along the course of this history, the company has developed several strengths.

The first is that we have a trading department that allows us to deal specifically with other countries. For the 40 years after World War II, Japan faced a shortage of ferrous scrap. In the 1990s, however, steel production reached a plateau and we gradually began to experience a surplus of ferrous scrap. As a result, even when we sourced ferrous scrap, there was no market for it in Japan. Because our company was far away from steelmakers' locations, we could only sell our products through trading companies, which presented us with a major sales challenge. We had the idea that we might be able to export our ferrous scrap to other countries, so we set up a trading department. Our first successful exports were to South Korea, and this marked a first for Japan. Developing our overseas business made us more competitive on prices, and we began sourcing ferrous scrap from companies that had previously been our rivals. This evolution brought us new functionality and spurred our business expansion from the city of Fujinomiya and Shizuoka Prefecture out to the rest of the country. Our Global Trading Business has grown accordingly.

We developed our second strength in the 1990s when we installed a shredder capable of handling large items, such as scrapped cars and appliances. At the time, it was an investment so large that some considered it reckless. However, this gave us the opportunity to acquire the advanced shredding and separation technology that would serve as the foundation for our current business expansion. In addition to separation using magnetic force, wind force, specific gravity, and eddy currents, we have recently been using separation technology like metal detectors based on various sensors. The plants used in our industry are mostly custom-made and fabrication is outsourced. We design and fabricate plants ourselves instead, leveraging our best on-site expertise. Our plants strongly reflect our own capabilities, allowing us to separate waste and other materials more precisely and thoroughly. This approach increases the value of the items we process, so we can sell them at higher prices. This, in turn, makes our sourcing more competitive. In the future, we plan to enter the world of chemical separation at the molecular level: extracting nickel and cobalt from the concentrated sludge of minor metals collected by physical shredding and the separation of lithium-ion batteries.

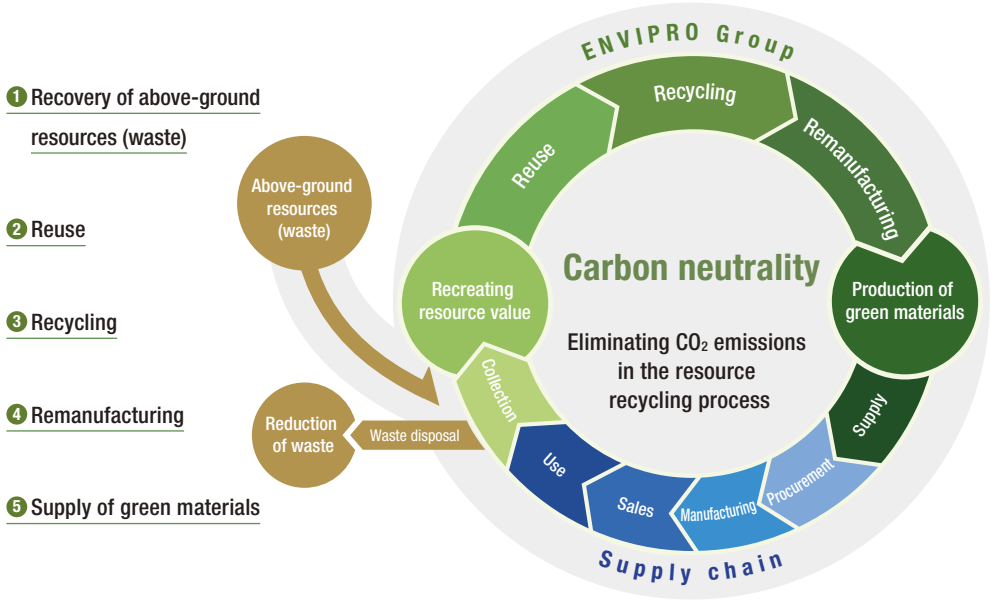
Our third strength comes from the fact that we have an environmental

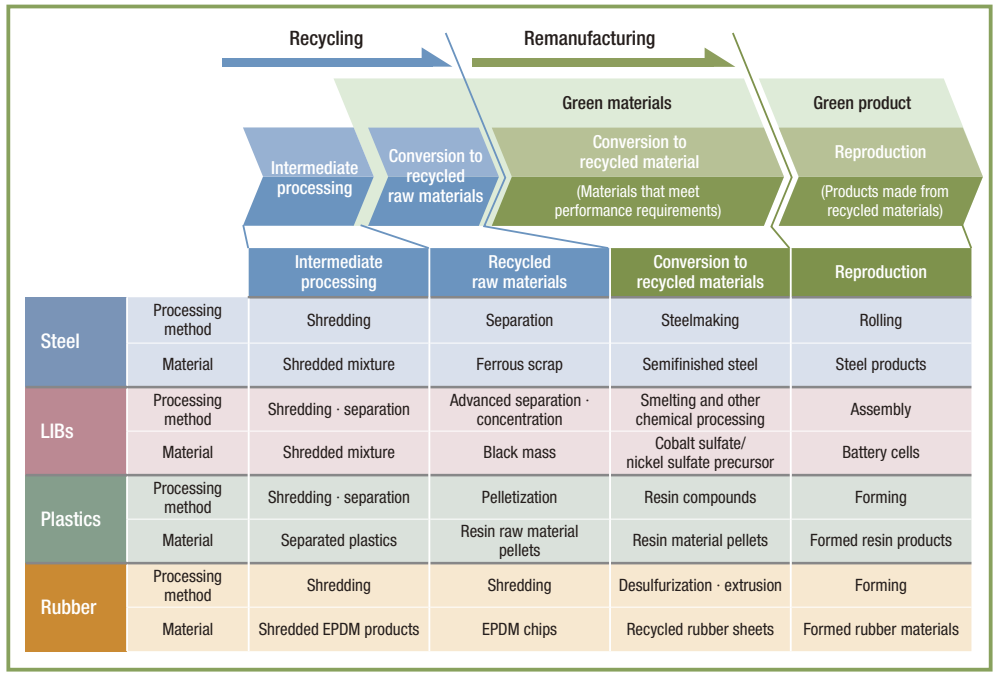
# Achieving Low-Carbon Processes: QCD + C (Carbon Neutrality).

consulting company that enables us to make concrete proposals. Bright Innovation, founded in 2016, started as a consulting firm to support CDP responses and the planning of decarbonization strategy. More recently, the company has expanded into consulting related to the circular economy. Conventionally, the elements essential to the manufacturing industry have been expressed by the initialism QCD (quality, cost, and delivery times). We advocate QCDC, which adds the element of C (carbon neutrality) to the manufacturing process. We can make concrete proposals because we have processing technologies including those needed for physical plants. Going forward, we believe we will be able to differentiate ourselves through our consulting function, by developing and combining a traceability system for the circular economy.

Our greatest strength is our corporate culture, which is based on the permeation of our corporate philosophy. The specific strengths that I have mentioned must evolve and develop with the times. We will further hone and entrench our existing strengths. We will continue working to evolve and turn areas of technologies and expertise that are not yet strengths for us into future areas of strength, through corporate alliances and M&A. In this way, I believe that we can find many more opportunities in our area of business.

## Our Role in the Overall Circular Supply Chain




| | | Intermediate processing | Recycled raw materials | Conversion to recycled materials | Reproduction |
|---|---|---|---|---|---|
| Steel | Processing method | Shredding | Separation | Steelmaking | Rolling |
| | Material | Shredded mixture | Ferrous scrap | Semifinished steel | Steel products |
| LIBs | Processing method | Shredding · separation | Advanced separation · concentration | Smelting and other chemical processing | Assembly |
| | Material | Shredded mixture | Black mass | Cobalt sulfate/ nickel sulfate precursor | Battery cells |
| Plastics | Processing method | Shredding · separation | Pelletization | Resin compounds | Forming |
| | Material | Separated plastics | Resin raw material pellets | Resin material pellets | Formed resin products |
| Rubber | Processing method | Shredding | Shredding | Desulfurization · extrusion | Forming |
| | Material | Shredded EPDM products | EPDM chips | Recycled rubber sheets | Formed rubber materials |

## Medium-Term Management Plan (Sustainability Strategy)

### Financial Targets of the Medium-Term Management Plan (Sustainability Strategy)

(Fiscal year ending June 2027)

| | |
|---|---|
| Net sales | ¥75 billion |
| Ordinary profit | ¥5 billion |
| ROE | 13 % |

To realize a decarbonized society by 2050, we will create QCDC manufacturing processes, promote RE100, and reduce $CO_2$ emissions from our plants. According to the Ellen MacArthur Foundation, a shift to renewable energy alone can only address 55% of the world's $CO_2$ emissions, but the remaining 45% can be addressed by a circular economy. The full utilization of recycled resources can thus help reduce $CO_2$ emissions. In addition to the conventional value of using recycled resources, their environmental value has begun to increase. For example, using ferrous scrap for steelmaking in electric furnaces is said to emit only around one-fourth the $CO_2$ compared to steelmaking from iron ore in blast furnaces. In other words, recycled materials such as ferrous scrap are low-carbon raw materials.

We joined the RE100 initiative in 2018. We are already operating with 97% renewable energy, and we will continue to supply low-carbon base fuel by reducing the carbon footprint of the production process itself throughout Scope 1, 2, and 3. Our financial targets for the fiscal year ending June 2027 are net sales of ¥75 billion, ordinary profit of ¥5 billion, and ROE of 13%.

### Resource Circulation Business

In the Resource Circulation Business, we will continue to pursue initiatives for further growth while building on our existing business. The company's activities include the collection of gold, silver, and copper sediment sludge from incineration ash, the recycling of incineration ash as a resource, cleaning and dismantling work broadly across Japan, and the advanced recycling of plastics. In particular, I think of the collection of gold, silver, and copper sediment sludge from incineration ash as my "lifework." It is said that each ton of incineration ash contains a gram of gold. It seems to me a waste to think that rather than being extracted, such gold might be recycled into cement or disposed of in landfills. I also believe we could see technological breakthroughs in plastics recycling. Without the addition of technology, municipal waste is just that: waste. But I believe waste plastics will become an important resource once chemical recycling technology becomes an established part of the social system.

### Global Trading Business

Overseas sales make up the bulk of operations in the Global Trading Business, but we believe it is time for a model change. I expect that Japanese demand for ferrous scrap will increase due to the new construction of large electric furnaces by major steel makers. Accordingly, the amount of ferrous scrap exported from Japan will decrease. Given this environment, over the medium term we aim to increase our handling volume from the current 540,000 tons to 1,000,000 tons. We will continue to expand our number of domestic collection points. In addition, we will focus on increasing our overseas sales and the number of products we handle, such as through trilateral trade. In the future, we plan to add our own technologies to overseas locations to establish resource processing bases, not just distribution bases.

### Lithium-ion Battery Recycling Business

We are promoting the Lithium-ion Battery Recycling Business as a strategic business to drive corporate growth. We believe this business will truly come into its own after 2030. We will start operating a hydrometallurgical plant in 2025. By 2027, we intend to increase the number of plants producing black mass, the raw material for the hydrometallurgical plant, to four (in Japan and overseas) and establish a system for collection and production. VOLTA is in charge of this business. In 2020, we made VOLTA independent from the Resource Circulation Business because we believed this would facilitate the



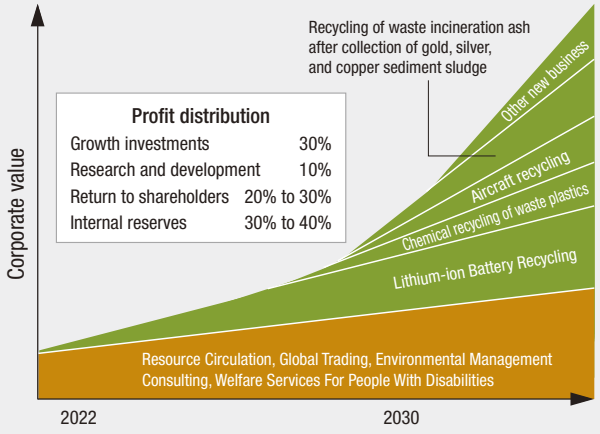
# Build a “platform” filled with good quality energy where all employees work energetically.

alliances and other collaboration necessary to ensure development speed and secure management resources. In this area, we are combining caution with boldness.

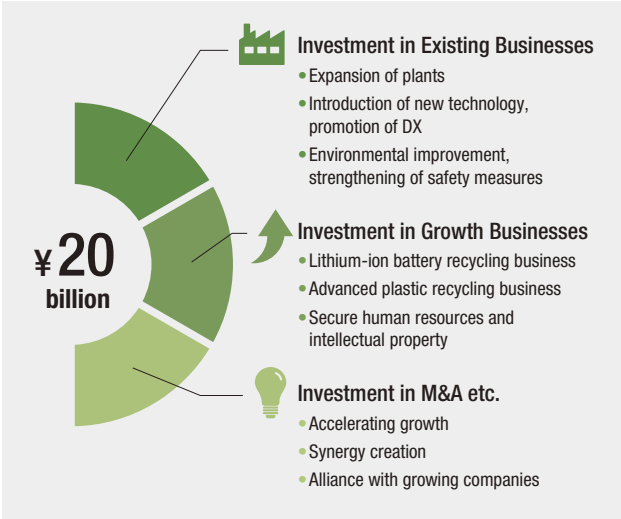
### Other Business

In Other Business, we will further strengthen our Environmental Management Consulting Business as a contact point for the creation of social systems. In addition, Welfare Service Business for People with Disabilities does not have a large financial impact, but it plays an important role in shaping the corporate culture. In the future, we will focus our business on cooperation between agriculture and welfare.

**Optimize business portfolio by deepening our involvement in or withdrawing from existing businesses, aggressively investing in growth areas and searching new businesses**




### Capital Investment




The company has made capital investment totaling around ¥6 billion over the past five years. Now that profit has been rising, we plan to increase this level. We plan to invest ¥20 billion over the next five years. We have already earmarked more than half this amount for new technologies and DX in existing businesses, investment in expansion (including for safety measures), and for growth businesses such as Lithium-ion Battery Recycling and advanced recycling of waste plastics. At this stage, we have no concrete plans for the remainder. My attitude toward investing has been changing.

### Human Resource Strategy

I believe that our first priority is to improve working conditions; in this industry, the on-site working environment is hard. Thinking of our human resource strategy from a long-term perspective, it is important to nurture people. For several years now, we have been offering a business school for the next generation of management. Over the next five years, we will develop 100 business promoters. We plan to establish several companies in the future, and I would like these people to experience being the president of a company. To ensure a company’s future growth, I think it is necessary for people to have emergent capabilities so they can grow by themselves and for them to be in a field or organization where they can take the lead and act with self-discipline. To this end, we will instill our corporate philosophy, create a bright, open, and pleasure culture, and train people with a sense of mutual trust, Hands-on learning, a shared vision, a spirit of taking on challenges, wholehearted effort and heart that cherish people. Naturally, we will need to create an environment for this.

In the wise words of Peter Drucker, whom I admire, “culture eats strategy for breakfast.” Above all, we will ensure our employees are well-versed in our corporate philosophy and culture, and to use this as the driving force for our human resources strategy.



# Identifying Materiality Items (Priority Issues) to Realize our Mission

**Corporate Philosophy**

## “Creative Company” “Circular Company” “Company Pursing Virtue”

The key values of the ENVIPRO Group, and its corporate DNA (no timeline)

**Mission**

## “Contribute to Create a Sustainable Society”

The ENVIPRO Group’s significance in the world, and its purpose and aspirations on a defined timeline (the years until 2050)

**The corporate value that we seeks**

To become a company that has a valued role in society by increasing economic value, environmental value, and social value and strengthening governance to sustain them.
In addition, to build a “platform” filled with good quality energy where all employees work energetically toward this goal.

## Societal Trends Surrounding the ENVIPRO Group

**Long-term Trends**

GX GREEN TRANSFORMATION
DX DIGITAL TRANSFORMATION

**Medium- and Short-Term Trends**

- Demand for the establishment of a green value chain
- Growing international competition for resources
- Surfacing social issues related to waste plastics
- Data utilization in non-IT businesses
- Increase in utilization of IoT, AI, Robotization
- Increasing competition for human resources

## Identifying Materiality (Priority Issues)

### MATERIALITY 01

**Increasing demand for green materials in the supply chain**

① Increasing demand for ferrous scrap due to building of additional electric furnaces
② Increasing demand for nonferrous metals and minor metals due to electrification
③ Promotion of advanced resource circulation of waste plastics

### MATERIALITY 02

**Reducing labor required in the production process, promotion of data utilization in business activities**

### MATERIALITY 03

**Investment in human resources to promote business activities**

# The Value Creation Process

## Make a Circle of Joy Your Partner in Circular Economy

### Materiality (Priority Issues)

- Increasing demand for green materials in the supply chain ▷P9
- Reducing labor required in the production process, promotion of data utilization in business activities
- Investment in human resources to promote business activities

### Inputs

(Year ended June 2022)

**Financial Capital**
- Total assets ¥28.9 billion
- Equity ratio 54.6%

**Manufacturing Capital**
- Group companies 15
- Domestic plants 10
- Shipping ports 14
- Overseas locations 4
- Capital investment ¥1.6 billion

**Intellectual Capital**
- Patents held 12

**Human Capital**
- Employees (consolidated) 498

**Natural Capital**
- Resource recovery rate 94.4%
- Electric power from renewable sources 97.3%
- Reduction in $CO_2$ emissions 62.4%

### Business Model

**Strategy Concept**

Challenging ourselves to resolve issues toward realizing a "decarbonized society," a "circular economy society," and a "distributed society"

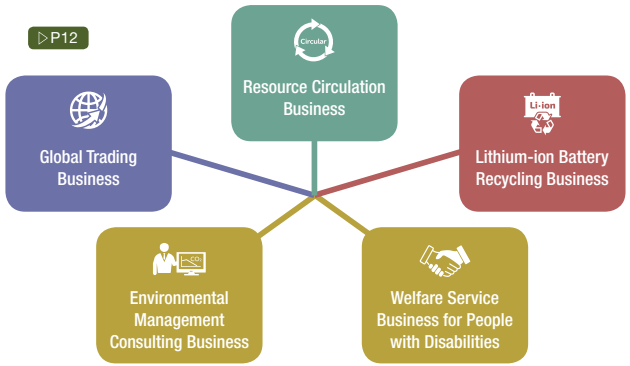
**Business Concept** ▷P6

Realization of concrete examples of a circular economy

**Strengths of the ENVIPRO Group**

| | |
|---|---|
| Corporate culture<br>Instill of the corporate philosophy | Technological capabilities<br>Unparalleled technical capabilities |
| Trading capabilities<br>Global sales force | Logistics capabilities<br>Getting things where they are needed |
| Inventiveness<br>From idea to strategy | Sales capability<br>A sales force that operates systematically |
| Productive capacity<br>Safe and efficient production | Collection capability<br>Collection that is diligent and flexible |

▷P12




**Growth platform** | **Management platform** ▷P42

Image for the organization:
a disciplined group of autonomous individuals with emergent abilities ▷P37

**Corporate Philosophy** ▷P3
The key values of the ENVIPRO Group, and its corporate DNA (no timeline)

**Mission Statement** Contribute to Create a Sustainable Society

The ENVIPRO Group's significance in the world, and its purpose and aspirations until 2050

### Sustainability Strategy Targets

(Fiscal years ending June 2023 through 2027)

**Financial Capital** ▷P7
- Net sales ¥75 billion
- Ordinary profit ¥5 billion
- ROE 13%

(Targets for fiscal year ending June 2027)

**Manufacturing Capital**
- Investment ¥20 billion
  - LIB recycling business
  - Introduction of new technology
  - Promotion of DX
  - Environmental improvement ▷P35
  - M&A Etc.

**Intellectual Capital**
- New technology development
- Laboratory expansion

**Human Capital**
- Development of 100 business promoters ▷P37
- Promotion of diversity ▷P39

**Natural Capital**
- RE100 by 2030 ▷P32
- Carbon neutral by 2050

### Value Provided

Social value

Economic value | Environmental value



**Natural Environment**
Helping to create a decarbonized society

**Local Community**
Contributing to the local community through our business





**Business Partners**
Helping suppliers manage decarbonization through safe and secure recycling

**Employees**
Providing an environment where diverse human resources can work with vigor and enthusiasm





**Shareholders and Investors**
Enhancing shareholder returns through sustainable growth

# Initiatives to Achieve the SDGs

## The ENVIPRO Group's Approach to the SDGs

The ENVIPRO Group has identified SDGs that are consistent with the nature of our business and our mission statement of "Contribute to create a sustainable society," around which we engage in activities to achieve the SDGs.

### Making Every Effort with Every Partner

As actions aimed at achieving the SDGs, we will advance collaboration within the group, with companies in the supply chain, and with administrative agencies, local communities, and citizens.

**•Partnerships**

Through participation in corporate groups and international initiatives, we are expanding partnerships aimed at achieving a sustainable society.

- Japan Climate Leaders' Partnership (JCLP)
- RE100*1
- CDP*2 Scoring Partner
- Clean Ocean Material Alliance (CLOMA)

*1 RE100: Means "100% Renewable Electricity." An international initiative for companies that aim to procure 100% of the electricity required for their business operations from renewable energy sources.
*2 CDP: An international initiative for the disclosure of information on climate change response



### Contribution to the Economy

- No poverty
- Technological innovation

3WM Co., Ltd. helps to reduce environmental impact and contributes to the economic development of countries in need by distributing high-quality used cars and other products to where they are needed in the world.

At the laboratories of ENVIPRO HOLDINGS Inc., we are working on the development of technology to collect the minor metals cobalt, nickel, and lithium with high purity from waste lithium-ion batteries through hydrometallurgy, and the enhancement of analysis accuracy, to contribute to the development of technology that will form the basis of a circular economy and a decarbonized society.





### Contribution to Society

- Health
- Education
- Gender
- Working environment
- Equality
- Community development

We prevent water and soil pollution and contamination by properly managing scrap materials at our plants, which comply with safety and environmental standards. In addition, to prevent infectious diseases, the entire Group has established guidelines such as vaccination assistance, sterilization of common areas, and the wearing of masks.

ASTOCO Inc. provides high-quality educational opportunities for people with disabilities so that they can participate in society with confidence and a sense of purpose.

We have introduced systems for telecommuting and shortened working hours for permanent employees, and provide an environment that lets employees, including those raising children or performing family care, choose a working style that fits them best.

ENVIPRO HOLDINGS Inc. began recruiting new graduates in fiscal 2019. To build upon our ongoing practice of employment of the physically challenged we will offer worthy job opportunities for people of different backgrounds. We thoroughly implement measures to prevent work accidents at our plants to ensure the safety of our employees.

Under programs such as the pre-employment transition support program and the type B continuous employment support program, we provide support that enables people with disabilities to remain engaged in rewarding work.

We contribute to community revitalization and the development of a sustainable cities and communities through recycling and the creation of employment, by collecting and recycling waste and discarded household items and by hiring people with disabilities at its plant.



### Contribution to the Environment

- Energy
- Consumption and production
- Climate change
- Life below water

We joined the RE100 initiative in July 2018 and set a goal of shifting to 100% renewable energy by 2030 for the energy consumed in our business activities. In addition to switching to renewable energy for the electricity used in our plants, we are installing solar panels on plant roofs and otherwise introducing renewable energy power generation equipment.

We contribute to the circulation of limited resources and the reduction of waste by engaging in the recycling business to extract precious metals from metal scrap and waste, and the remanufacturing business to produce recycled raw materials.

Under the goal we have set of achieving carbon neutrality by 2050, we will work to reduce GHG emissions from our business activities. We also contribute to the reduction of emissions across the supply chain through our mainstay recycling and remanufacturing businesses. In May 2019, we publicly endorsed the Recommendations of the Task Force on Climate-related Financial Disclosures (TCDF). We will identify and evaluate opportunities and risks placed on our businesses by climate change, integrate these into our business strategies, and engage in appropriate information disclosure.

We contribute to the prevention of marine pollution stemming from plastics by developing technologies to sort waste plastics for recycling into pellets and by promoting the development of applications for recycled materials.



# Business Overview Working Together as a Group to Realize a Circular Economy

Reuse
Recycling
Remanufacturing

## Resource Circulation Business

We work to use limited resources effectively and reduce waste by promoting the reuse, recycling, and remanufacturing of waste and resources. We also offer new value to the world by using waste to manufacture recycled materials.

- ECONECOL Inc.
- Kuroda Recycle Co., Ltd.
- SYN ECO Inc.
- Toyo Rubber Chip Co., Ltd.
- ARBIZ Corporation*
- Fuji Eco Cycle Co., Ltd.*

*Affiliates accounted for under the equity method




## Global Trading Business

In this business, we distribute internationally the metal scrap and other resources generated in Japan and other countries. We also move used items, such as used cars and maintenance parts, from Japan onto global markets.

- NEWSCON Inc.
- 3WM Co., Ltd.

## Lithium-ion Battery Recycling Business

By recycling lithium-ion and other rechargeable batteries, we help to collect and make use of limited resources, such as cobalt, nickel, and lithium. We aim to achieve a closed loop, battery to battery.

- VOLTA Inc.

Welfare Service Business for People with Disabilities

Environmental Management Consulting Business

## Other Business

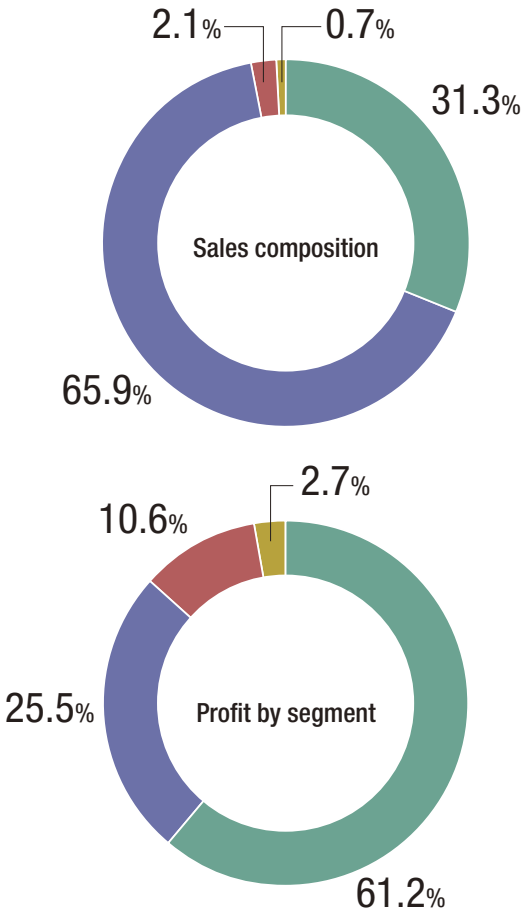
In this segment, we are developing the Welfare Service Business for People with Disabilities. This business supports the independence of people with disabilities, helping them to find work and in community life. In addition, our Environmental Management Consulting Business helps companies develop environmental strategies and plans for reducing greenhouse gas emissions.

Welfare Service Business for People with Disabilities
- ASTOCO Inc.

Environmental Management Consulting Business
- Bright Innovation Co., Ltd.

# Highlights by Segment

- Resource Circulation Business
- Global Trading Business
- Lithium-ion Battery Recycling Business
- Other Business

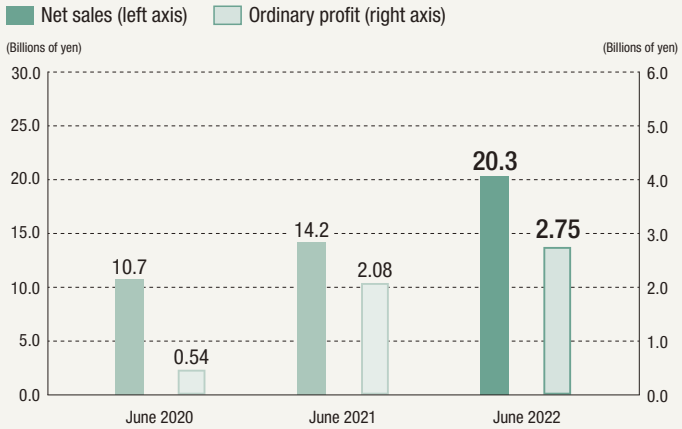




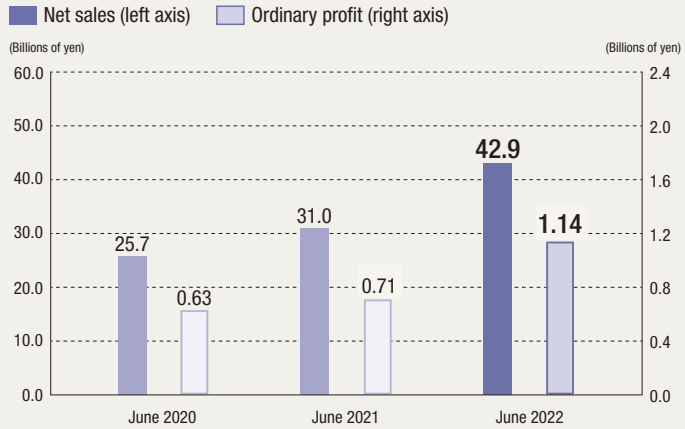


ENVIPRO Group (results for the year ended June 2022)

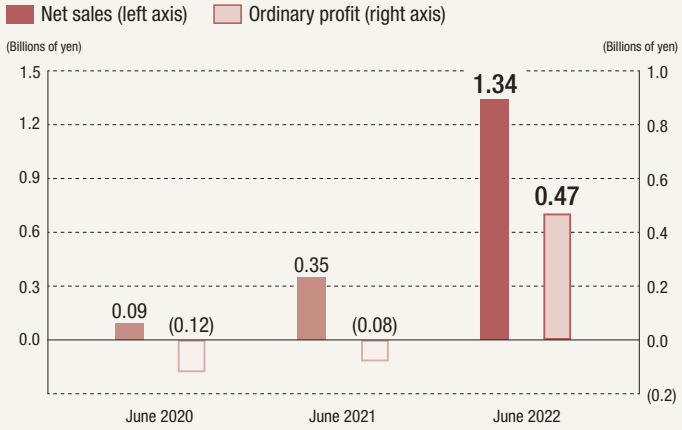
## Resource Circulation Business




## Global Trading Business

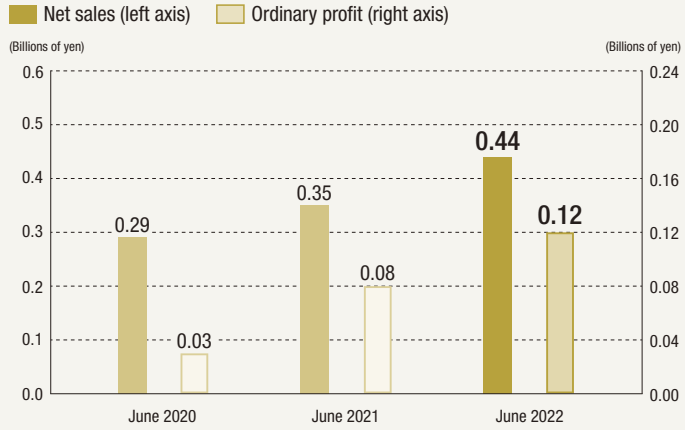



## Lithium-ion Battery Recycling Business




## Other Business

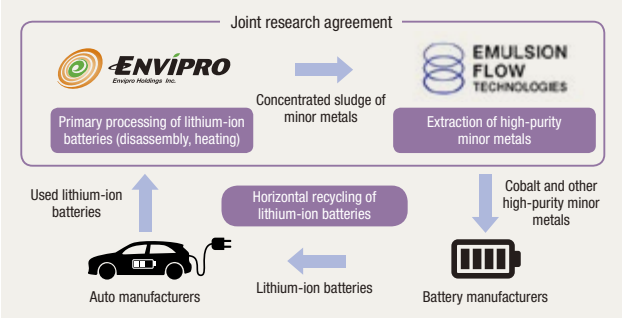
Welfare Service Business for People with Disabilities
Environmental Management Consulting Business



# Highlights

## Topics 01 Joint Research Aimed at Recycling High-Purity Minor Metals from Lithium-Ion Batteries

In August 2021, we signed a joint research agreement with Emulsion Flow Technologies Ltd. (EFT) to use EFT's emulsion flow (hydrometallurgical) technology to collect minor metals from lithium-ion batteries (LIBs). Our role is to collect LIBs, provide minor metal concentrate sludges that have undergone primary processing, and share our knowledge on solvent extraction technologies. EFT is responsible for development to scale up emulsion flow equipment and for using emulsion flow technology to develop minor metal extraction flows.




## Topics 02 Announcement of Our Medium-Term Management Plan (Sustainability Strategy)

In August 2021, we unveiled our medium-term management plan (Sustainability Strategy). In August 2022, we revised our consolidated numerical targets on a rolling basis. ▷P7

## Topics 03 Reinforcement of the Wood Biomass Business through M&A

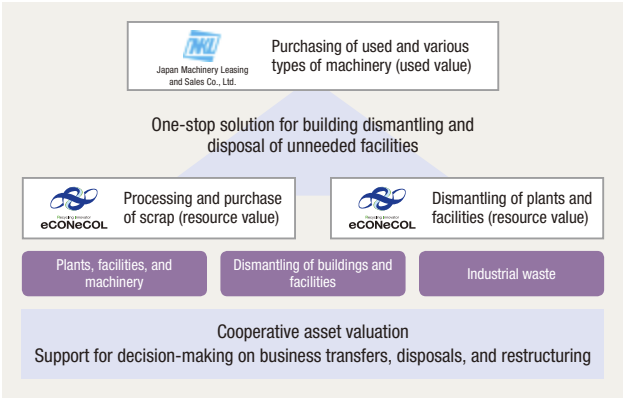
In October 2021, Fujimi BMS Co., Ltd. became a subsidiary of ECONECOL Inc., and Econecol abosorbed and merged Fujmi TMS Co., Ltd.in March 2022. This acquisition enhanced our response to the growing demand for recycled wood waste and biomass fuels, which we had handled little in the past. ▷P16

## Topics 04 Opening of a New Welfare Service Location, Focused on Social Farming, for People with Disabilities



In April 2022, we divided Ecommit Azumino, where ASTOCO Inc. conducts a type B continuous employment support program for people with disabilities, into Ecommit Akashina (a new location focused on social farming) and Ecommit Toyoshina. This second location handles recycling, in collaboration with Group company SYN ECO Inc. ▷P26

## Topics 05 Nationwide Collaboration in Cleaning and Dismantling Work




The company has entered a business alliance with Sumitomo Mitsui Trust Panasonic Finance Co., Ltd. and Japan Machinery Leasing and Sales Co., Ltd. The collaboration combines the Group's expertise in scrap processing and dismantling with Japan Machinery Leasing and Sales' knowledge and expertise in machinery and equipment, including its appraisal and sales functions. Through the alliance, we offer a full range of services, from fixed asset evaluation to the resale and recycling of unneeded machinery and other assets.

## Topics 06 Construction of New ECONECOL Plant in Fuji, Shizuoka Prefecture

ECONECOL Inc. collects riddling ash, waste shredder residue, mixed metals, and other materials from all over Japan and recycles them into high-grade materials using proprietary recycling technologies. The new plant will expand these efforts by establishing a system that offers improvements on the productivity, safety, and environmental fronts. Another objective is to establish a model case for future horizontal expansion to new sites and other plants. ▷P17



## Topics 07 Collaboration to Strengthen Our Material Recycling of Waste Plastics

We have started collaborating with TBM Co., Ltd. a new-materials venture company, on the operation of a material recycling plant for waste plastics. Our role is to provide human resources, expertise, and know-how in the collection and recycling of waste plastics.

## Topics 08 Expansion of Recycling Plant for Lithium-Ion Batteries

VOLTA Inc. has established new facilities at a plant in the city of Fuji, Shizuoka Prefecture that recycles lithium-ion batteries.



# Resource Circulation Business

## Flow of Treatment/Processing in the Resource Circulation Business

### INPUT
Above-ground resources (waste)

- Ferrous scrap
- Automobiles
- Electronic circuit boards
- Small home appliances
- Riddling ash*1
- Plastics
- Tires

Separation

### RECYCLING

**Shredding**
Materials are finely shredded for recycling.
- Automobiles
- Photocopiers
- Microwave ovens
- Vacuum cleaners
- Smartphones, etc.

**Magnetic separation**
Ferrous scrap is removed from the shredded mixture using strong magnetic force.
Ferrous metals
Nonferrous metals

**Air separation**
Paper waste, sponges, and light dust are removed from the shredded mixture using air separators.
Paper waste, sponges, light dust, and lightweight plastics

**Dry specific gravity separation**
Waste is sorted by using vibration and upward air flow.
Agitation propellers
Air power
Light particles
Heavy particles
Liquid

**Wet specific gravity separation**
The specific gravity of a liquid that combines water and a specific metal powder is adjusted according to the items to be extracted, separating items into those that float and those that settle.
Ferrous metals

Materials for cement production
Incineration
RPF

**Refuse paper and plastic fuel (RPF) plant**
RPF and other solid fuel are produced from waste.

**Eddy current separation**
Falling non-magnetic metals are sorted using magnetic repulsion.

### REUSE
- Airplanes
- Used cars

### GLOBAL TRADING
Export overseas

Materials manufacturers

Aluminum | Copper | Gold, silver, and copper sediment sludge | Plastics for fuel

### REMANUFACTURING
Extruder
Plastic pellets
Extruded materials

### OUTPUT
Recreating resource value

- Shredded steel scrap
- Copper
- Aluminum
- Gold, silver, and copper sediment sludge*2
- Plastics for fuel
- RPF (solid fuel)*3
- Rubber chips

*1 Riddling ash is ash that falls through the grate of a stoker furnace when waste is incinerated.
*2 Gold, silver, and copper sediment sludge is a mixture of gold, silver, copper, platinum, and palladium.
*3 RPF, which stands for "Refuse derived paper and plastics densified Fuel," is a high-grade solid fuel made mainly from recovered paper and plastics (mainly from industrial waste) that are difficult to recycle as materials.

Resource Circulation Business

Recycling Innovator eCONeCOL

# ECONECOL Inc.

Business
- Recycling of resources using large shredders
- Collection of gold, silver, and copper sediment sludge from incineration ash
- Manufacture of low-carbon raw materials and fuels
- Cleaning and dismantling work
- Reuse and recycling of aircraft

For more detailed company information

Value & Vision

# Contributing to a Sustainable Society by Circulating High-Quality Low-Carbon Raw Materials and Fuels through Society

**ECONECOL Inc. was established in 1950 in the city of Fujinomiya, Shizuoka Prefecture.
Since that time, the company has been involved in the Resource Circulation Business, focusing on the recycling of metals, plastics, and waste materials.
A parent organization of the ENVIPRO Group, ECONECOL leads the recycling industry in the spirit of pursuing opportunities to reduce wastefulness.**

RE100 CLIMATE GROUP | CDP



## Running the Plant on Electric Power from Renewable Sources

ECONECOL is working toward RE100, an initiative that calls for companies to procure 100% of the electricity required for their business operations from renewable energy sources. The company is already using 100% of electric power from renewable sources at its head office plant and Hamamatsu plants. ▷P32
These plants recycle materials into environmentally friendly, low-carbon raw materials and fuels for use around the world.

## Reinforcing the Wood Biomass Business

In March 2022, ECONECOL absorbed Fujimi BMS Co., Ltd., reinforcing the business of providing a stable and sustainable supply of wood chips, which are used as boiler fuel.
Wood waste comes in many categories, primarily from trees, construction, and wooden pallets. This wood waste can be thermally recycled. Through material recycling, these types of wood waste can also be transformed into chips for paper manufacturing or raw materials for medium-density fiberboard (MDF).



Products made from recycled wood waste

## Business of Collection Gold, Silver, and Copper Sediment Sludge from Urban Mines

The Tokyo Olympics held in 2021 showcased an experiment in “urban mining,” in which medals distributed to the winning athletes were made from recycled materials. While much attention has been paid to the value of waste

Comment

## Our Mission: Contribute to create a sustainable society

**Fumikatsu Sano,** Representative Director ECONECOL Inc.

ECONECOL conducts resource recycling. We focus on the Resource Circulation Business, which is in keeping with the Group’s mission “Contribute to create a sustainable society” In addition to general ferrous and nonferrous metals, we recycle precious metals and minor metals. We combine various sorting technologies into our own proprietary techniques for recycling valuable resources. We cooperate with product manufacturers to promote a circular economy in which product, consumption, waste recycling, and manufacturing flows lead to materials that can be recycled into product materials.We believe that expanding our business model in this way will bring us closer to the aim of achieving a sustainable society.



Resource Circulation Business

Recycling Innovator eCONeCOL

# ECONECOL Inc.

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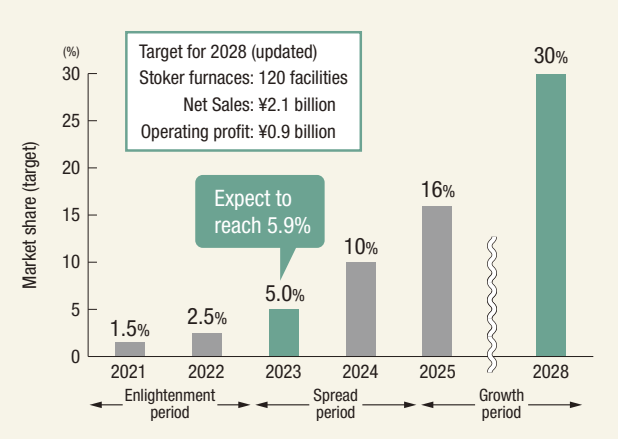
- Reuse and recycling of aircraft

For more detailed company information

electrical and electronic products as resources, most incineration ash from municipal waste–which contains precious metals–is still disposed of in landfills. After years of research, ECONECOL has established a technology to collect precious metals from some of this incineration ash. The technology was patented in January 2019. The precious metals contained in riddling ash*1 and mixed metals are concentrated, collected, and recycled using technology that optimizes physical sorting methods. By expanding this initiative to municipalities nationwide, we also plan to help reduce the amount of waste sent to landfills.

Stoker furnaces account for the majority of Japan's general waste treatment facilities. Nationwide, Japan has around 390 facilities capable of processing more than 100 tons per day. In 2022, the final year of the Enlightenment period for this project, our operations covered 2.5% of these facilities. We regard this project as the spread period from 2023, and by 2025 we aim to reach 16% of facilities.

*1 Riddling ash is the incineration ash that falls through the grate of a stoker furnace.




## Manufacturing Low-Carbon Raw Materials and Fuels (RPF) from Waste Plastics

Refuse derived paper and plastics densified fuel (RPF) is solid fuel made from waste plastics and paper waste that is difficult to recycle. An environmentally friendly fuel, RPF offers stable quality and significantly lower $CO_2$ emissions than coal and other fuels. We produce about 25,000 tons of RPF per year, most of which we supply on an ongoing basis to paper companies for use as boiler fuel. Our plant is currently operating around the clock, and we intend to expand production, as we plan to further increase the number of clients.



RPF

## Construction of a New Plant in Fuji, Shizuoka Prefecture

In December 2021, we began construction of the Fuji plant, a new base of operations in Fuji, Shizuka Prefecture. The plant was completed in September 2022. The plant building, which is on a 13,000-square-meter site, has 6,300 square meters of floor space. Recycling equipment is steadily going into operation. The plant uses our proprietary technology for physical sorting to collect nonferrous metals, precious metals, and plastics from incineration ash, mixed metals, and waste shredder residue.

The plant will ensure high productivity and improve profitability, while providing a safe work environment that reduces employee workloads and external environmental impact.





Resource Circulation Business

Kuroda Recycling Together

# Kuroda Recycle Co., Ltd.

Business
- Recycling of resources using large shredders
- Collection of gold, silver, and copper sediment sludge from incineration ash
- Manufacture of low-carbon raw materials and fuels
- Cleaning and dismantling work

For more detailed company information

Value & Vision

# Helping to Realize a Sustainable Society through the Cleaning, Disposal, and Recycling of Unwanted Items

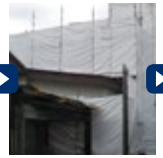
**We are developing a community-based recycling business in southern Hokkaido, centered on the city of Hakodate.
August 2022 marked the company's 100th anniversary of establishment. We are actively involved in dismantling work, as well as the disposal of large items, such as automobiles and wind power generation equipment.**

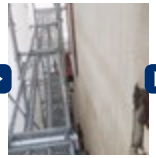
RE100 CLIMATE GROUP | CDP

## Providing a One-Stop Service for Dismantling Work

Kuroda Recycle Co., Ltd. provides a one-stop service for dismantling work, including the cleanup of debris from buildings and grounds, preliminary investigation of asbestos-containing building materials, CFC collection, and building dismantling work. The company's centralized management improves work efficiency and reduces costs for the customer.
The company provides service throughout Hokkaido and is helping to resolve the issue of vacant houses. These have become a social issue in Japan due to a shrinking population, falling birthrate, and aging society.


Estimating and cleaning


Preliminary survey of building materials for asbestos content



Dismantling work







## Collection Gold, Silver, and Copper Sediment Sludge from ASR and Manufacturing Low-Carbon Raw Materials and Fuels

Kuroda Recycle recycles automobile shredder residue (ASR), which is produced by shredding end-of-life vehicles. The company runs an ASR recycling facility that operates under ministerial authorization. ASR contains metals that cannot be collected by shredding and sorting processes. We collect small metals (gold, silver, and copper sediment sludge) by utilizing various approaches, such as sorting by particle size and using magnetic force, wind power, and eddy currents. After gold, silver, and copper sediment sludge is collected from ASR, the remainder is blended with other waste plastics and converted into fluff*1. We provide fluff to cement manufacturers, which use it as a fuel alternative to coal.
We will continue working to improve the recycling rate for end-of-life vehicles. In particular, we will focus on research to make our sorting technology more sophisticated and increase processing efficiency.


Alternative fuel


ASR recycling plant

## Wind and Solar Power Recycling

Hokkaido has many locations suitable for wind power generation, and numerous generation facilities are in place in the region. Among these facilities, many have deteriorated after reaching the end of their 20-year useful life and are being removed. Kuroda Recycle is using its well-equipped processing facilities to recycle the large waste objects that result (ferrous scrap, special metals, and other materials).
Many wind turbines will be constructed offshore in the future. Kuroda Recycle will utilize its freight forwarders to actively accept objects from across Hokkaido to marine routes throughout Japan.


Wind power generation facility

Comment

### A Direct Relation between Our Work and Carbon Neutrality

**Koji Nara,** Representative Director Kuroda Recycle Co., Ltd.

We handle a wide variety of waste, including end-of-life vehicles and home appliances. We also focus on dealing with the "dust" that remains after resources have been collected through the shredding and sorting processes. The resulting substance is a fuel alternative to coal. We supply this fuel to cement companies to help them in their decarbonization initiatives. Also, our production processes are powered by 100% renewable energy sources. We will continue to promote the recycling of waste materials to meet society's demands.



*1 Fluff (a recycled product of plastic containers and packaging) is what remains when these containers and packaging are finely cut after washing, removal of foreign matter, and drying.

Resource Circulation Business

# SYN ECO SYN ECO Inc.

Business
- Recycling of resources using large shredders
- Cleaning and dismantling work
- Recycling specified home appliances
- Integrated community recycling

For more detailed company information

Value & Vision

# Achieving Circular and Ecological Economy with the Local Community through Recycling

**SYN ECO provides a recycling business with close ties to the community. Focusing on the cities of Matsumoto and Azumino in Nagano Prefecture, the company offers a Mottainai BOX service and recycles specified home appliances. The company has obtained a new permit for compressed packaging of waste plastics and has begun the thermal recycling of plastics, using them as a fuel alternative to coal.**

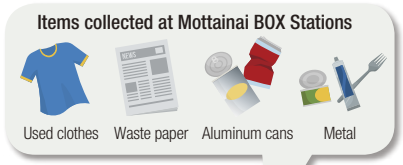
RE100 CLIMATE GROUP | CDP

## Providing a Platform for Collecting Community Resources: Working Closely with the Community through Mottainai BOX Activities

SYN ECO Inc. has set up Mottainai BOX Stations as resource collection sites at 21 locations in the Chushin district of Nagano Prefecture. In fiscal 2021, the company collected 5,500 tons of resources. The amount collected has been increasing each year as the stations grow more convenient.

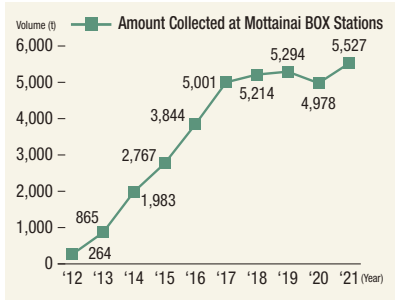
On our updated website, we have begun to inform customers of our monthly collection volumes.

The company also donates a portion of the proceeds it generates from the collection of resources to the local J2 League Matsumoto Yamaga Football Club and Nagano Children's Hospital.






Mottainai BOX




characterizes the company's commitment to local production for local consumption by returning proceeds to the community from recycling resources collected locally. In addition to these activities, we support Mamafes Matsumoto activities and cooperate in events related to the reuse of children's books and other materials, as well as other activities closely related to the community. ▷P40

## Using Large Shredders to Conduct High-Quality Intermediate Processing

SYN ECO is the only company in Nagano Prefecture to use a large shredder to shred and sort metals and waste plastics. Leveraging the shredder's intermediate-processing characteristics, we shred ferrous and nonferrous metals and composite waste, sell each recycled item, and help transform them into new products. The mixed metals and nonferrous metals the company processes are sorted and recycled at Group companies, maximizing Group synergies and economies of scale.

## The Specified Home Appliance Recycling Business

SYN ECO is the only company in Nagano Prefecture that recycles home appliances (general waste) generated in the cities of Azumino and Nagano. When recycling specified home appliances, disassembly and sorting are done by hand, mainly by people with disabilities, so the collection efficiency of resources is high. The number of units processed and the recycling rate can be checked in real time using resource recycling monitors. The system also allows for the centralized management of incoming shipments of specified home appliances and outgoing shipments of collected resources, so the entire recycling process can be monitored.

The number of units received in the city of Nagano, where the company began operations in fiscal 2021, is increasing.

## Reducing $CO_2$ Emitted from the Intermediate Processing of Waste Plastics

In May 2022, the company received a new permit for the compressed packaging of waste plastics. This permit opens the way to ship waste plastics, which were previously only shredded, as raw materials for RPF and other recycled fuels. SYN ECO is collaborating in this initiative with ECONECOL Inc., which produces RPF and other fuels. We anticipate that the initiative will help reduce $CO_2$ through the thermal recycling of plastics, using them as an alternative fuel to coal. Through the effective use of these resources, we are working toward the realization of a sustainable society.

Comment

### Aiming to Be a Company Offering Integrated Community Recycling

**Shigeto Komatsu,** Representative Director SYN ECO Inc.

We live and work in Nagano Prefecture, a wonderful environment rich in greenery. We aim to be a company that contributes to the community through the local production and consumption of products using recycled resources generated in this region.

The Mottainai BOX resource collection service that we operate receives a large number of recyclable materials from the local community. We will continue returning some of our proceeds to local sports teams and children's hospitals.

We will continue accelerating our efforts to realize a sustainable society. Our employees will work together as we strive to create Circular and Ecological Economy.



Resource Circulation Business

# Toyo Rubber Chip Co., Ltd.

Business
- Waste rubber recycling
- Manufacture and sale of recycled rubber and rubber products
- Paving work for public facilities

For more detailed company information

Value & Vision

# Promoting the Remanufacturing Business, Turning Waste Rubber into New Products

**Toyo Rubber Chip, which is centered in the city of Maebashi, Gunma Prefecture, is a pioneer in the recycled rubber industry. The company has been making effective use of industrial resources for 80 years. We contribute to safety and security through the development of a wide range of applications, including flooring materials for playground equipment in parks and schools, flooring materials for sports facilities, railroad crossing panels, and industrial products.**

RE100 CLIMATE GROUP | CDP

## Efforts to Reduce Environmental Impact

Toyo Rubber Chip shreds and cuts waste tires and scrap rubber (waste materials generated during the manufacture of rubber automotive parts), and then uses this material in remanufacturing.

The company's products are widely used as elastic pavement material, artificial turf filler materials, and industrial products. For 80 years, the company has been committed to utilizing resources in different ways, rather than wasting them. By harnessing the technology cultivated over the years, the company aims to step up its contribution toward the realization of a sustainable society.

## Producing High-Safety Colored Rubber Chips

The company manufactures and sells colored rubber chips that are high-quality and elastic. Colored rubber chips can help reduce damage from falling down. Vivid colors and good workability make it possible to create attractively designed pavements. These materials are used in public parks, hospitals, welfare facilities, shopping centers, daycare centers, kindergartens, and many other places to provide safety and security to visitors. (Conforms to the HIC1000 safety standard)



Rubber-chip paving

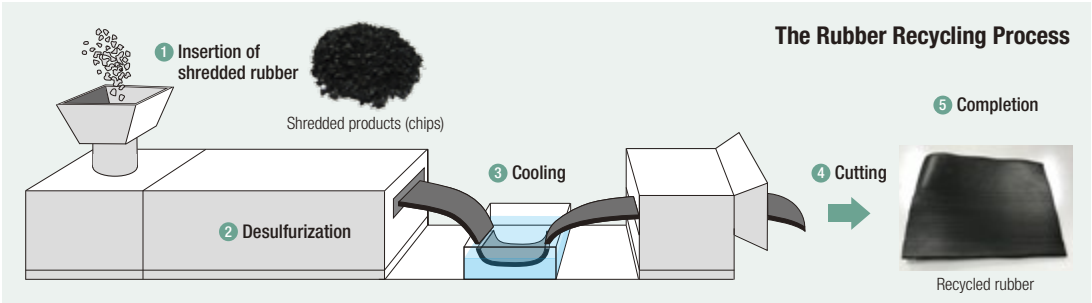


Omni-rubber panel construction of colored panels for pedestrians

## A Circular Economy for Waste Rubber

The company's desulfurization facilities are capable of returning discarded rubber to usable raw material. We receive scrap rubber from customers' plants. We then shred, desulfurize, cool, and cut the material to make recycled rubber sheets. We return these sheets to our customers, where they are reborn as new products.

We are thus creating a rubber-to-rubber circular economy by encouraging the reuse of limited resources as new products instead of wasting them.




## Comment: The Tire-to-Tire Challenge

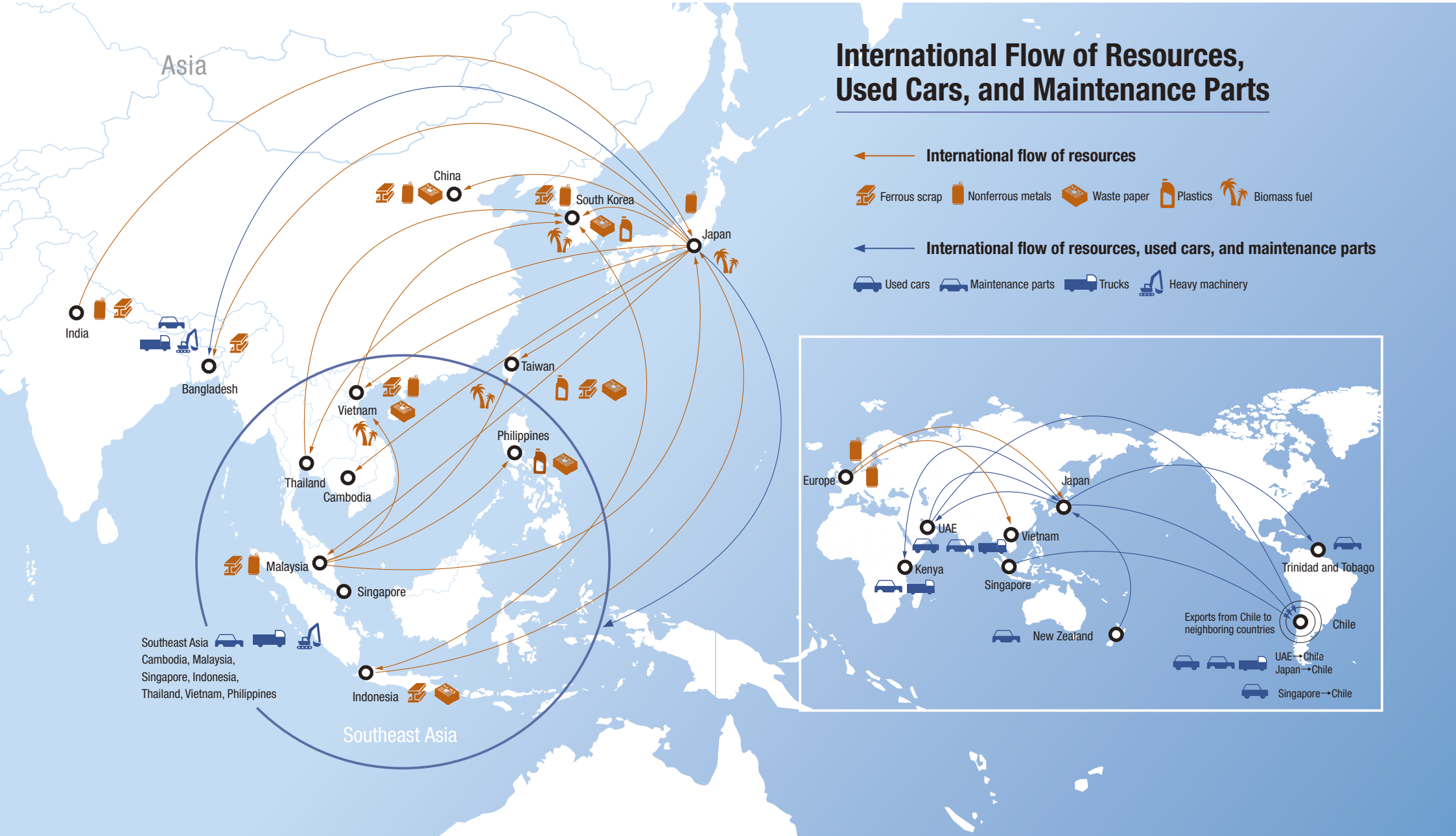
**Kozo Haruyama,** Representative Director Toyo Rubber Chip Co., Ltd.

For our circular economy (CE) business, we start by developing filler material for tire manufacturing with the aim of developing technology for the fine grinding of waste tires. To this end, we plan to make aggressive capital investments in fine grinding technology. In addition, to recycle waste rubber emitted from customers' manufacturing processes we are developing new products using a new press molding machine and desulfurization and regeneration using a twin-screw extruder. As a result, we are providing low-carbon and sustainable products and services to achieve a closed-loop Tire-to-Tire process.

Toyo Rubber Chip is committed to help realize a sustainable society through its recycled rubber business.



# Global Trading Business



Global Trading Business

NEWSCON Inc.

Business
- Import/export of recycled resources (ferrous scrap and nonferrous metals, gold, silver, and copper sediment sludge, waste paper, used clothes)
- Export and sale of miscellaneous items
- Import and sale of biomass fuel

For more detailed company information

Value & Vision

# Contributing to Global Resource Recycling by Helping the Group Expand its Overseas Business

**NEWSCON functions as an overseas antenna for the ENVIPRO Group. The company helps the Group optimize the recycling of resources by facilitating the global flow of recycled resources such as ferrous scrap, nonferrous metals, waste paper, and used clothes produced and collected within and outside the Group.**

## Domestic and Overseas Sales of Ferrous Scrap, Which Is Used in Steelmaking

Ferrous scrap is an important recycled resource in Japan, which is poor in natural resources. The global trend toward decarbonization is leading to plans to expand electric furnaces that melt ferrous scrap. This approach is said to generate less $CO_2$ than blast furnaces that use iron ore and coal. Demand for ferrous scrap is thus slated to increase. NEWSCON conducts quality control in accordance with customer needs and sells ferrous scrap to (blast furnace and electric furnace) steelmakers in Japan and overseas. In response to the growing demand for steel in Vietnam and other countries in Southeast and Southwest Asia, we have established new and expanded collection bases in Japan to increase the amount of steel we can collect. The company has earned plaudits for its quality control and delivery system, which have helped it to sustain long-term contracts. In addition, as transportation logistics grow more diverse, we have been making active use of bulk shipping (small and large vessels) and container transportation to sell iron and steel resources on a global scale.



Ferrous scrap

## Processing and Supply of Nonferrous Metals

NEWSCON processes and supplies a variety of nonferrous scrap that has been shredded and sorted by ENVIPRO Group and domestic waste disposal companies to meet the needs of domestic and international customers. NEWSCON also uses its domestic yards and overseas network to efficiently collect and supply various types of nonferrous scrap. The company is working to expand global resource recycling by importing e-scrap (such as circuit boards and gold, silver, and copper sediment sludge) from Europe and selling it to third countries.



E-scrap (waste circuit boards)

## International Flow of Waste paper, Used Clothes, and Other Recycled Goods

The company exports waste paper (as a raw material for papermaking) and used clothes (reused commercial materials). We have dedicated warehouses for waste paper in the city of Niigata and in Imari, Saga Prefecture. From these locations, we provide fine-grained export services starting with small lots. The company is also addressing the growing cross-border market for e-commerce, selling Japanese apparel and general merchandise such as hygienic products. Recently, we have expanded sales channels into Taiwan and Vietnam and other countries. In addition, the company is actively engaged in the distribution of recycled resources, including waste plastics, both in Japan and overseas.



Waste paper





Rubber tubes (raw materials for recycled rubber)

## International Trade in Biomass Fuel

The company deals in palm kernel shells (PKS), which it sells mainly in Japan as fuel for biomass power plants. PKS have been gaining attention as a renewable fuel. Going forward, in addition to PKS the company plans to expand its product line to include wood pellets, new fuels and others.

Global Trading Business

# NEWSCON Inc.

**Business**
- Import/export of recycled resources (ferrous scrap and nonferrous metals, gold, silver, and copper sediment sludge, waste paper, used clothes)
- Export and sale of miscellaneous items
- Import and sale of biomass fuel

For more detailed company information



**Export Volume in the Year ended June 2022**



Ferrous scrap: **504,000** tons



Biomass fuel: **9,000** tons



Waste paper: **8,000** tons



Nonferrous metals: **13,000** tons



Used clothes: **2,000** tons

## Invigorating Global Business

NEWSCON Inc. is responsible for developing new cross-border and overseas business for the ENVIPRO Group. Currently, we are strengthening trilateral trade that bridges the European and Asian markets. We are also developing bases to collect the recycled resources generated from electronic devices and EVs, which are increasing in number as electrification progresses. The company is also promoting collaboration and synergy with various scrap processors, manufacturers, and other suppliers.

In line with the Group's strategy, NEWSCON is constantly seeking out new ways to optimize the reuse of energy and resources through business investments and partnerships with other companies in the industry, generating value from the recycling of goods.



Invoking the Japanese concept of "mottainai" (which encourages us not to unnecessarily waste materials, and to recycle products wherever possible), we recycle used products through the ENVIPRO Group network. By finding recycling contact points that invigorate the industry, we will contribute to the realization of a more sustainable world.

## Introducing Our Overseas Bases

### NEWSCON Vietnam Representative Office

Recycling requires overseas involvement. Recycled resources from Japan are circulated around with the world. As Japan is unable to fully absorb the recycled resources it generates, these resources are passed on to customers overseas, where the raw materials gain a new lease on life.

The company delivers such valuable resources to people around the world who need them, when they need them. For example, ferrous scrap is an important recycled resource. This scrap is exported to Vietnam and used by local steelmakers, where it is transformed into new steel products.



NEWSCON Vietnam Representative Office

In addition to ferrous scrap, the company provides nonferrous metals, waste paper, plastics, and various other Japanese recyclable resources to recipients overseas. The company established a representative office in Ho Chi Minh City in 2015 to meet the needs of the times, and the volume handled in Vietnam has grown steadily. To meet the needs of our customers, in addition to Japan we aim to export to Vietnam from Europe, North America, and a wide range of other regions.

### NEWSCON Europe Representative Office

Our representative office in the United Kingdom collects and sells nonferrous metals, precious and other mixed metals, and electronic circuit boards. Resources collected in Europe are sold to customers within Europe and in Asia. We are expanding our lineup of products and cultivating new customers and distributors. The European Representative Office collects, analyzes and disseminates to the ENVIPRO Group and its stakeholders information on European environmental policies, recycling business models, and various decarbonization-related topics, as well as on trading activities. We are also working to implement our medium- to long-term business strategy of collaborating with recycling and environmental businesses in Europe.



NEWSCON Europe Representative Office

Comment

### NEWSCON, leading "One Envi"

**Hideki Yoshimi,** Representative Director NEWSCON Inc.

We serve as an antenna for the ENVIPRO Group and a bridgehead for its overseas strategy. The global trend toward carbon neutrality is leading to the rise of resource nationalism, and lifestyles are changing as a result of the COVID-19 pandemic. As a result, we may find ourselves in a world where conventional wisdom no longer applies. In preparation for the new status quo, the ENVIPRO Group hopes to help realize a sustainable society by building recycling schemes that match the right people and the right places, leveraging a recycling network with a global perspective.



Global Trading Business

# 3WM Co., Ltd.

**Business**
- Export of and trilateral trade in used cars, trucks, heavy machinery, and maintenance parts
- Logistics agency business

For more detailed company information

Value & Vision

# Transnational recycling of resources through reuse of used cars, heavy equipment, and maintenance parts

**We supply high-quality Japanese used cars and maintenance parts to the world through our overseas bases in the UAE and Chile.**
**The company also promotes the reuse of used cars and maintenance parts on a global scale through the trilateral distribution of used maintenance parts.**

## International Distribution of Used Cars and Maintenance Parts

The corporate mission of 3WM Co., Ltd. is to "provide things that people consider unnecessary to the people who need them." Under this mantra, 3WM sends used cars, auto parts, trucks, and heavy equipment from Japan and overseas locations to countries in need. The recycling rate has been increasing in recent years, but a first step toward reducing environmental impact is to reuse items that still have a useful life.

Electric and hybrid vehicles that feature low environmental impact are becoming increasingly popular. Even so, gasoline and diesel vehicles are still the mainstream in many countries where suitable infrastructure is not yet in place. Japanese cars are particularly popular around the world because of their high durability and environmental performance. Even though cars are an essential part of daily life and logistics for many, high prices make it difficult to purchase new vehicles in many countries.

We help improve people's lives by providing usable vehicles to such countries at low prices.



## Focusing on the Trilateral Distribution of Reused Maintenance Parts

In the past, the company mainly exported items from Japan. More recently, we have also begun removing and reexporting maintenance parts from cars that started out in Japan and were later exported and spent the remainder of their useful life in other countries.

As the quantity of used maintenance parts generated in Japan is expected to decrease, we will focus on this trilateral distribution.

In particular, we are working to export parts to Latin America from New Zealand, Australia, Singapore, Chile, and other countries.

We also have overseas subsidiaries in the UAE and Chile. Although the hurdles to overseas expansion are high, we did so ahead of our competitors, and we are developing our business by working directly with local people.

By expanding into overseas markets directly, we have cleared the first barrier to trade–earning trust–and created an environment that makes it easier for customers to buy from us.



UAE, Middle East




Chile, South America

Comment

## Expanding the still usable to the world

**Mototsugu Kuze,** Representative Director 3WM Co., Ltd.

Worldwide, EV sales are growing due to expectations of lower environmental impact. However, demand remains strong for vehicles with internal combustion engines in developing countries with underdeveloped infrastructures.

We use our proprietary technology to sort engines removed from end-of-life vehicles in countries around the world and redistribute them as usable products in countries where they are still needed.

We play a role in realizing a sustainable society by recycling end-of-life vehicles. In addition, we help reduce environmental impact and promote economic development other countries through our reuse business, through which we distribute maintenance parts that can still be used.



Lithium-ion Battery Recycling Business

VOLTA Inc.

**Business**
- Collecting and recycling of minor metals from rechargeable batteries
- Recycling of used casings (other than batteries)

For more detailed company information

Value & Vision

# Becoming an Indispensable Industry Player through LIB-to-LIB Recycling

**EVs are growing in popularity, and global production is expected to quadruple between 2022 and 2030. Demand for lithium-ion batteries (LIBs) is likely to surge accordingly. However, the industry faces concerns about shortages of raw materials such as lithium, cobalt, and nickel. Against this backdrop, LIB-to-LIB recycling has emerged as a global challenge.**

RE100 CLIMATE GROUP | CDP



## Recycling LIBs to Produce Black Mass and Collect Valuables

LIB cathode materials contain minor metals, such as cobalt, nickel, and lithium. After LIBs are heated, they are crushed and sorted to collect black mass*1, a mixture of minor metals. The company also collects copper contained in the anode material. We sell high-quality metals to smelters, utilizing the expertise we have cultivated since our establishment. In 2022, the company changed the crusher used on the electrode material recycling line to increase production capacity. In 2025, we plan to start operating a hydrometallurgical plant and expand our business by taking the lead in producing battery materials using black mass as raw material.



Black mass

## Production Using a Decarbonization Process at RE100 Plants

To achieve carbon neutrality by 2050, decarbonization processes will be required in battery recycling, as well. With the exception of the trucks we use for haulage, we have achieved 100% renewable energy in all of our processes. We will help to build a low-carbon society by working toward RE100 at new sites we will establish in the future.

## Expanding Battery Collection

In March 2022, we became the fourth company to be certified as a wide-area industrial waste recycling processor by JBRC, a general incorporated association. Our advanced sorting technology allows us to handle a wide variety of rechargeable batteries, enabling us to collect a range of batteries across a wide area. In addition, the acquisition of an industrial waste disposal license has made it possible for us to accept and recycle waste batteries that are classified as industrial waste. As we can now process LIBs from various items such as discarded cordless appliances, electric toys, and heated cigarettes, we expect our LIB handling volume to increase.

### Comment: Keeping an Eye Focused on Advanced Battery Recycling

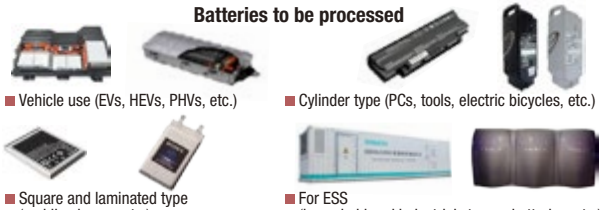
**Kenta Imai,** Representative Director VOLTA Inc.

VOLTA recycles rechargeable batteries, such as lithium-ion and nickel-metal hydride batteries, using its own knowledge and the Group's recycling expertise. While keeping an eye on competition from Chinese and other companies that have already established a lead in this field, we plan to leverage the Group's comprehensive strengths to establish a recycling scheme and develop sorting technology. As a result, we will take up the challenge of becoming a cutting-edge recycling company capable of capturing new markets. In addition to the Group's strengths in thorough crushing and sorting technology, we will help to realize a sustainable society by taking advantage of the trading function that enables us to purchase and sell products overseas.



## The Lithium-Ion Battery Recycling Process

**Batteries to be processed**



- Vehicle use (EVs, HEVs, PHVs, etc.)
- Cylinder type (PCs, tools, electric bicycles, etc.)
- Square and laminated type (mobile phones, etc.)
- For ESS (household and industrial storage batteries, etc.)

**The Recycling Process in the Plant**

**Battery recycling process**

**Heating treatment**
Electrolyte is volatilized through heat treatment.



**Shredding/Sorting*2**
Sorting with sieves after shredding



**LIB material recycling supply chain**

**Black mass:** Hydrometallurgy manufacturers
**Iron:** Steel manufacturers
**Copper:** Copper smelters and manufacturers

**Electrode plate recycling process**

**Shredding/Sorting**
Continuous shredding by multiple shredders and sorting with sieves



**Anode sheet/Cathode sheet**
Active materials*1 applied to copper foil or aluminum foil are efficiently stripped off by a special shredder



**LIB material recycling supply chain**

**Active materials:** Hydrometallurgy manufacturers
**Carbon:** Steel manufacturers
**Copper:** Copper smelters and manufacturers
**Aluminum:** Reducing agent applications

*1 Black mass/active materials: A concentrated sludge of cobalt, nickel, and lithium
*2 By evaporating electrolytic solution through heating treatment, shredding and sorting are handled in a continuous line

Welfare Service Business for People with Disabilities

As toco 明日が"かがやく"ところをつくる

# ASTOCO Inc.

Business
- Pre-employment transition support program
- Type B continuous employment support program
- Satellite work business

For more detailed company information

Value & Vision

# Helping People with Disabilities Find Employment and Participate in Social Activities

**We help people with disabilities acquire knowledge and skills. At the same time, we help them find life stability and social relations so that they can find suitable jobs and become independent members of society, helping to resolve the social issue of a shrinking labor force.**

## Creating Opportunities for People with Disabilities

**ASTOCO's Initiatives**

1. Matching people with disabilities with companies (Pre-employment transition support program)
2. Collaborate with companies to receive work orders (Type B continuous employment support program)

As the Japanese workforce shrinks, growing attention is being focused on the effective employment of people with disabilities. During the COVID-19 pandemic, the social advancement of people with disabilities slowed temporarily, owing to a dip in job openings. Since then, the upward trend has resumed. In fiscal 2021, overall data on the employment of people with disabilities show that this employment reached a record high for the 18th consecutive year. Turnover is also high, however. Data from a 2017 survey showed that around half of people with mental disabilities left their jobs within a year. (Employment Security Bureau Survey)

ASTOCO Inc. promotes job matching through its pre-employment transition support program, and is working to reduce the turnover rate by providing appropriate support after employment. In terms of corporate partnerships, we are engaged in the social farming business as a response to the shortage of labor in agriculture, and we provide support for personnel during the harvest season and other times of the year. In addition, the ENVIPRO Group is involved in the dismantling of recyclables at recycling sites and sorting after shredding.


Harvesting cucumbers grown by social farming

In April 2022, we divided Ecommit Azumino into Ecommit Akashina (a location focused on social farming) and Ecommit Toyoshina (which will handle work in collaboration with Group companies). Through these efforts, we are increasing opportunities for the active employment of people with disabilities.

## Business to Support the Transition to and Continuation of Employment

### 1 Pre-employment transition support program (Bright)

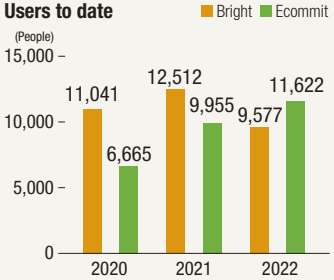
We provide people with disabilities who are seeking employment with a curriculum that helps them find employment and assist them in their job-hunting activities. We also support workers retention, enabling people to remain in work for a long period once they find employment.

### 2 Type B continuous employment support program (Ecommit)

In cooperation with the ENVIPRO Group, local businesses, and farms, this program provides work and wages according to the work performed. In this way, we create a place where people who have difficulty working in general companies can participate in society with confidence and gain a sense of fulfillment as members of society.

This program has expanded the scope of its activities, and has now started growing cucumbers and tomatoes at Ecommit Akashina.

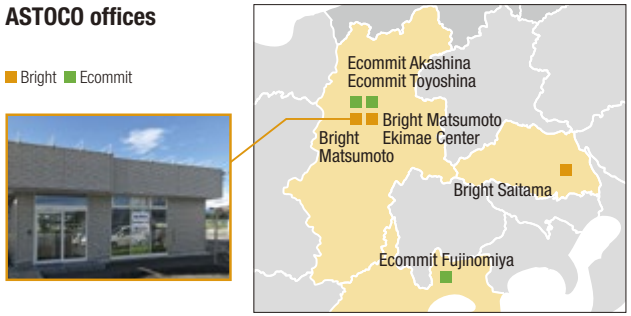
People employed: 16 | Average wage: ¥22,033




### 3 Satellite work business

We address the problems companies face, such as difficulties in responding appropriately to specific disabilities. We help to ensure a comfortable working environment and secure jobs for people with disabilities.

**ASTOCO offices**




Comment

### Creating a Brighter Place Tomorrow Shines

**Kozo Haruyama,** Representative Director ASTOCO Inc.

We are convinced that the social engagement that comes with working fosters personal relationships and allows us to enjoy what is important in life. We would like to convey to our clients the support of welfare and the fact that the community is watching over them, and we hope they will develop the courage to "raise up their hands" in the community, even when they encounter difficulties. To this end, we strive to create a healthy workplace where employees can fully demonstrate their abilities and where each day brings a smile to their faces. This approach brings high-quality energy to the people who use our services. "The supported become the supporters."



Environmental Management Consulting Business

# Bright Innovation Co., Ltd.

Business
- Consulting and solutions
- Environmental DX (digital transformation)

For more detailed company information

Value & Vision

# Providing Consulting and Solutions to Help Companies Manage Decarbonization

We offer consulting services to support carbon-neutral strategies and the establishment of circular economy models, which are becoming increasingly important themes for corporate management, as well as solutions for the introduction of renewable energy, recycling, and the production of recycled raw materials.

## Consulting and Solutions

### Carbon Neutrality

Consulting ■ Solutions

| | Consulting | Solutions |
|---|---|---|
| Vision/strategy formulation | ■ Formulation of climate change response strategy/long-term vision<br>■ Formulation of roadmaps for reducing GHG emissions<br>■ Setting of emission reduction targets (SBT) | |
| Information disclosure/evaluation improvement | | ■ CDP answers, rating improvement<br>■ Response to TCFD recommendations, scenario analysis<br>■ Disclosure of sustainability information |
| Research, calculation | ■ Calculation of Scope1, 2, and 3 emissions<br>■ Calculation of products' contributions to emissions reduction<br>■ Introduction of internal carbon pricing<br>■ Research on policies, laws, and corporate rends related to climate change | |
| Decarbonization | | ■ Introduction of renewable energy<br>■ Procurement of green energy, credit<br>■ Credit generation |

### Circular Economy

Consulting ■ Solutions

| | Consulting | Solutions |
|---|---|---|
| Vision/strategy formulation | ■ Formulation of vision/strategy<br>■ Setting of circular economy business objectives | |
| Model commercialization | | ■ Circular economy business planning<br>■ Support for construction of discarded product/waste collection schemes<br>■ Business partner development support<br>■ Business cost analysis |
| Research | ■ Circular economy-related research<br>■ Circular economy global corporation benchmark research<br>■ Feasibility studies on the procurement of recycled materials<br>■ Recycled raw material analysis research | |
| Resource circulation | | ■ Waste collection and processing<br>■ Recycled materials processing/manufacturing<br>■ Development of applications for recycled material products |

CDP DISCLOSURE INSIGHT ACTION

We have been a CDP Scoring Partner since 2017.

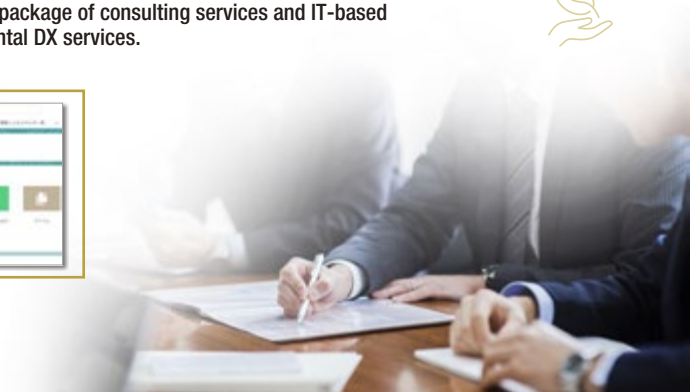
**Connection between Consulting and Environmental DX**

We offer a package of consulting services and IT-based environmental DX services.

### Environmental DX
(Digital Transformation)

- System for calculating $CO_2$ emissions
- Reporting systems under the Act on Promotion of Global Warming Countermeasures and the Act on Rationalizing Energy Use
- Circular economy platform system





Environmental Management Consulting Business

# Bright Innovation Co., Ltd.

Business
- Consulting and solutions
- Environmental DX (digital transformation)

For more detailed company information







## Steps for Implementing Consulting

- **STEP 3** Obtain the desired results
  (Examples)
  - Carbon neutral strategy
  - Roadmap for GHG reduction
  - Information disclosure based on the TCFD recommendations, etc.
- **STEP 2** Internal review by client, consensus building (implementation phase)
- **STEP 1** Formulate vision for the future, directions for improvement, and action plan
- Understand the client's current situation and needs, clarify issues

Provide the latest trends related to climate change and sustainability | Support for writing and data creation through dialogue and collaboration

Practical consulting services that leverage our expertise, unique knowledge, experience, and extensive network

## Helping Companies Become Carbon Neutral

As the movement toward decarbonization accelerates both in Japan and overseas, it is becoming increasingly important for companies to consider the impact of climate change on their business operations and to respond to the risks and opportunities as part of their management strategies. Bright Innovation Co., Ltd. provides consulting services to help companies manage their decarbonization management. These services include help with information disclosure in response to the TCFD recommendations, assistance in improving evaluations from third-party institutions such as CDP, and aid in creating carbon-neutral strategies and GHG reduction roadmaps. We also provide solution services to help companies reduce their emissions by introducing renewable energy, and provide total support from planning to implementation of decarbonization strategies.

Bright Innovation, as a member of The ENVIPRO Group, helps companies achieve RE100 by switching to renewable energy sources for electricity consumption and installing solar panels on plant premises. In addition to calculating $CO_2$ emissions and disclosure of sustainability information, in fiscal 2021 we promoted environmental management through assistance in CDP responses.

## Supporting a Transition to the Circular Economy

The concept of the circular economy and its importance are gaining broader acceptance as problems such as the depletion of natural resources and the increase in waste become more apparent. We provide consulting services for the construction of a closed-loop circular economic model in which waste products, including plastic containers, are reused as recycled raw materials. In cooperation with the ENVIPRO Group's Resource Circulation Business, we propose recycling, remanufacturing, and other solutions. In this way, the company offers consistent services that help companies establish models for a circular economy.

## Environmental DX (Digital Transformation)

In recent years, we have been promoting DX through the development of the following two systems. Through these efforts, we aim to streamline and accelerate our efforts in the fields of circular economy and carbon neutrality, which have become increasingly important global trends.

**1 Circular economy platform system**

We are promoting the development of a system to track the process of transportation, processing into recycled materials, and shipping of waste generated from the emitter's business site, as well visualizing the associated $CO_2$ emission reductions.

**2 System for calculating $CO_2$ emissions**

We are also promoting the development of a system to calculate $CO_2$ emissions for Scope 1, 2, and 3, visualize the reduction from the base year and the level of achievement against the reduction plan, and streamline the management of these emissions.

Comment

### Supporting Decarbonization Management through Environmental Management Consulting

**Norihiro Nakasaku,** Representative Director Bright Innovation Co., Ltd.

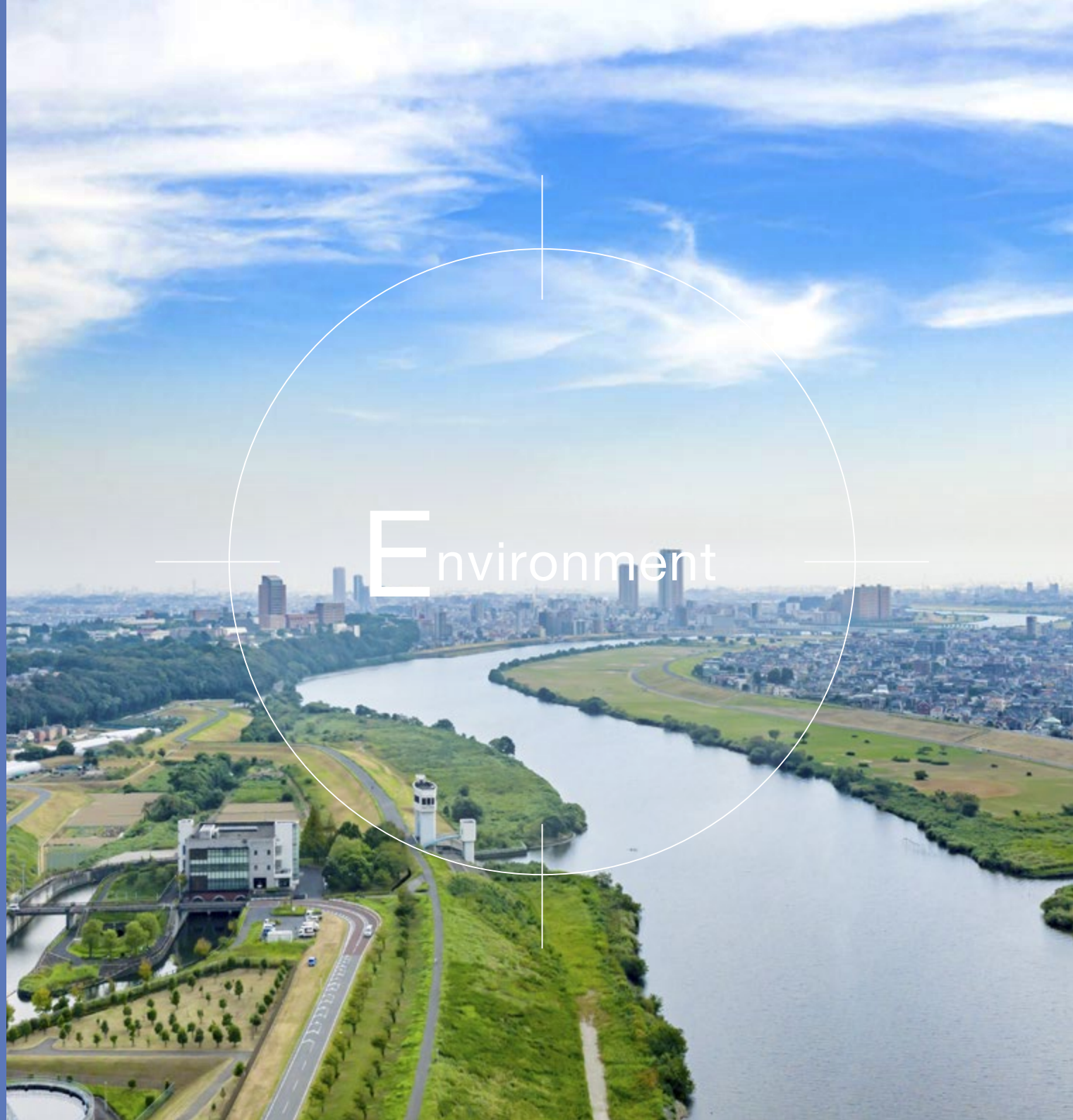
Our company helps to realize a sustainable society through its Environmental Management Consulting Business. Specifically, we help companies transition to decarbonization through the development of decarbonization strategies, SBT, Scope 1, 2, and 3 calculations, TCFD compliance, and CDP and other carbon neutral (CN) consulting. We also promote sustainable resource use by providing circular economy (CE) consulting services, such as building models to recycle waste, recyclable materials, and waste products in cooperation with Group companies.



ESG Initiatives

# Environment

To achieve carbon neutrality by 2050, the ENVIPRO Group has joined the RE100 initiative, whose goals are to reduce GHG emissions to effectively zero and to use 100% sustainable energy for electricity consumed in business operations. Accordingly, the Group has set goals for 2030.



Environment

# Becoming Carbon Neutral by 2050

## Information Disclosure in Line with TCFD Recommendations

### Basic Approach

In May 2019, the ENVIPRO Group announced its endorsement of the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD), established by the Financial Stability Board (FSB). The TCFD recommends disclosure based on four categories: governance, risk management, strategy, and metrics and targets. The Group discloses information on climate-related issues according to these four categories.

In December 2020, the Group decided to achieve effectively zero GHG emissions from all its business by 2050, including the processing and recycling of scrap and waste handled by the Group. As countries work toward decarbonization, resources and climate change are issues that–far from being separate–are closely interrelated and global in scope. Unrestricted resource extraction and GHG emissions undermine sustainability and must be addressed if we are to preserve the Earth's resources and natural environment we share into the future. As its resource circulation business is located at the end of the supply chain, the Group has the characteristics to address both of these important social issues through its business. This is precisely the social responsibility we believe the Group should fulfill.

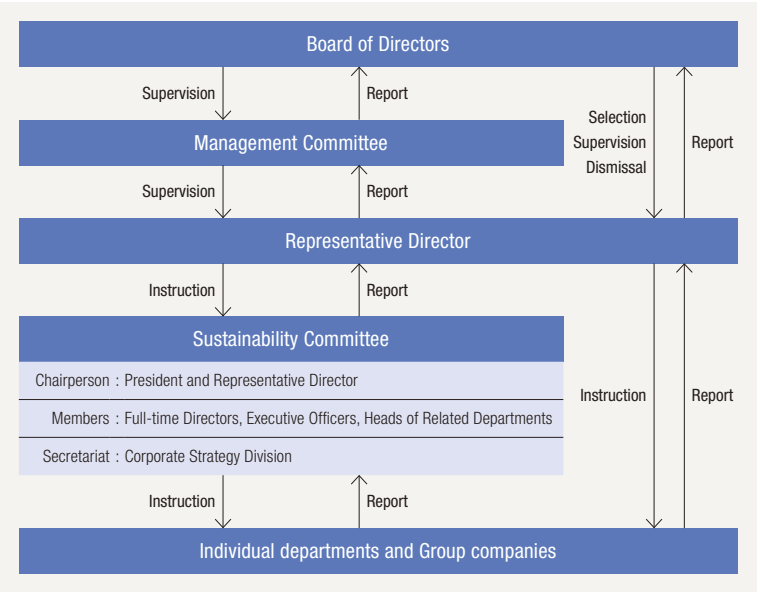



## Governance

### Sustainability Promotion System

To promote policies and measures related to climate change response and other sustainability strategy matters, the Group's sustainability promotion system has a Sustainability Committee that consists of the president and representative director, full-time directors, executive officers, and heads of some related departments. The committee seeks to promote the medium-term management plan (Sustainability Strategy) that forms our strategy for achieving sustainable development for both the Group and society. As an organization that assists decision-making by the representative director, it flexibly and actively discusses and examines the status of strategy promotion and future directions, including new business and M&A, from a long-term perspective. Matters discussed are further resolved or discussed by the Management Committee, a decision-making body for business execution, and are then submitted to the Board of Directors. Under the supervision system of the Board of Directors, we work to maintain governance and promote sustainability strategies.

**Sustainability Promotion System**




**Role of Conference Bodies to Address Climate Change within the Sustainability Promotion System**

| Conference body | Role |
|---|---|
| Board of Directors | Supervises progress on initiatives related to environmental issues discussed and approved by the Management Committee. Meets monthly. |
| Management Committee | Decides on important matters related to individual, specific instances of business execution, and makes decisions on timely disclosure. Meets monthly. |
| Sustainability Committee | Discusses the organization and operation of the committee and other important matters concerning sustainability in order to promote the medium-term management plan. Meets monthly. |

**Initiatives to Date**

- 2018 Joined RE100
- 2019 Announced endorsement of the TCFD recommendations
- 2020 Declared a commitment to become carbon neutral by 2050
- 2021 Incorporated the Sustainability Committee into the governance structure

## Risk Management

At the Group, the Internal Control Committee evaluates and reviews business risks, which are integrated into the company-wide risk management process. The Sustainability Committee evaluates and reviews climate change-related risks. Relevant departments identify opportunities, consider specific measures, and make recommendations to the Sustainability Committee as necessary. The Sustainability Committee evaluates the recommendations and promotes measures to address them. For both risks and opportunities, particularly important matters are reported to or submitted to the attention of the Board of Directors.

## Strategy

### Identifying and Addressing Risks and Opportunities

The Group conducts scenario analyses to examine the risks and opportunities posed by climate change and its impact on the Group. We analyzed the Group's business activities using the Representative Concentration Pathways (RCP8.5) published by the Intergovernmental Panel on Climate Change (IPCC) and the Sustainable Development Scenario (SDS) published by the International Energy Agency (IEA). We examined the impact on the Group's business activities based on the assumption of a temperature increase limited to 2°C by the end of this century and the assumption of a 4°C increase.

## Assessment of Environmental Initiatives

### Climate Change: B

The Group received a "B" rating, the third highest out of nine, in a 2022 study on climate change conducted by CDP, an international non-profit organization.

### Climate-Related Risks/Opportunities and Potential Financial Impacts and Responses

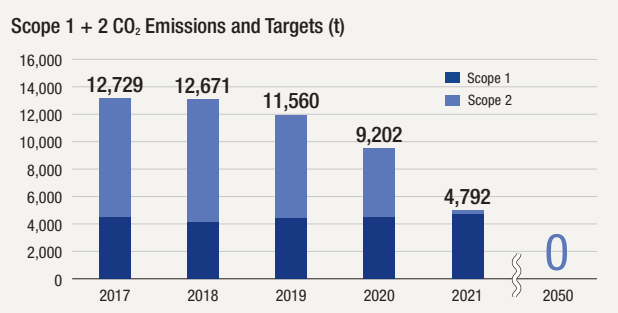
| Type | Category | Hypothetical examples | Potential Financial Impact | | | |
|---|---|---|---|---|---|---|
| | | | Risks | Period | Opportunities | Period |
| Transitional | **Policy and regulation** | Taxes on various types of energy, introduction of carbon taxes | • Increased costs of using renewable energy<br>• Easing of the supply-demand balance and price decline of ferrous scrap due to the development of new technologies such as hydrogen-reduction steelmaking | Short to long term | • Expansion of existing recycling business<br>• Increased demand for ferrous scrap due to shift to electric furnaces, price increase<br>• Installation of large shredder to produce electric furnace materials | Short to long term |
| | | Regulations on the use of recycled plastics | • Reduction in the thermal recycling of waste plastics | Long term | • Growth in demand for low-carbon raw materials and fuels (RPF)<br>• Expansion of material and chemical recycling of waste plastics<br>• Development and commercialization of chemical recycling plants | Medium to long term |
| | | Traceability of $CO_2$ emissions (DX) mandated | • Lost market entry opportunities due to delays in business development | Medium term | • Expansion logistics businesses of scrap, waste<br>• Visualization of GHG emissions<br>• Support for the procurement of carbon credits | Medium to long term |
| | **Technology** | Expansion of the chemical recycling of waste plastics | • Lost business entry opportunities due to delays in technology development | Medium to long term | • Creation and expansion of new markets for the chemical recycling of waste plastics | Medium to long term |
| | **Market** | Increased adoption of EVs, ESSs | • Increased demand for nonferrous metals and minor metals due to electrification (depletion) | Short to long term | • Expansion of the Lithium-ion Battery Recycling Business<br>• Expansion of the business of collection gold, silver, and copper sediment sludge | Short to long term |
| | **Reputation** | Social responsibility as an environment-related company | • Failure to consider the environment, damage to credibility among stakeholders | Short to long term | • Scoring by CDP and other international rating agencies<br>• Disclosure of information in line with the TCFD recommendations<br>• Disclosure of various approaches through the Sustainability Report | Short to long term |
| Physical | **Acute** | Increase in natural disasters due to increasing severity of extreme weather events | • Decrease in earnings due to such factors as shutdowns and production reductions caused by damage to plants, difficulties in vessel dispatch, or transportation delays<br>• Decrease in revenue due to lost sales and purchasing opportunities<br>• Increase in insurance premiums and repair/restoration costs | Short to long term | • Enhanced response to issue of waste created in disasters | Short to long term |
| | **Chronic** | Increased heat stress due to higher average temperatures | • Decrease in productivity due to restrictions on working hours<br>• Increased cost of investing in environmental improvement | Short to long term | • Personnel savings, unmanned operation, remote control | Short to long term |

## Metrics and Targets

The Group has identified GHG emissions and the percentage of electricity generated from renewable energy sources as indicators to be used in assessing and managing climate change-related risks and opportunities, and has publicized target values for each.

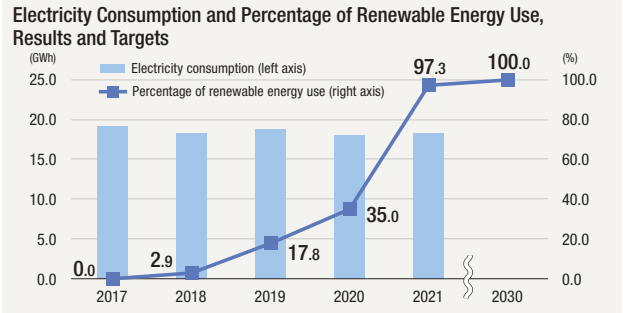
### GHG emissions

By 2050, the Group aims to achieve effectively zero GHG emissions from all its operations, including the processing and recycling of scrap and waste.
In fiscal 2021, $CO_2$ emissions (Scope1 and 2) amounted to 4,792 tons, down 62% from fiscal 2017 levels.




### Percentage of Electricity Generated from Renewable Energy Sources

In July 2018, we became the first company in the global recycling industry to join the RE100 initiative, which sets the goal of reaching 100% renewable energy for electricity consumed in business activities by 2050.




The target date for RE100 has since moved forward by 20 years, to 2030, to coincide with the government commitments to go carbon neutral.
In fiscal 2021, renewable sources accounted for 97.3% of electric power used throughout the Group.

## RE100 Plants*1

*1 Plants and facilities that operate entirely on electric power from renewable sources

| RE100 Plants | | |
|---|---|---|
| ECONECOL Inc. | ① Head office plant | Fujinomiya, Shizuoka |
| | ② Hamamatsu plant | Hamamatsu, Shizuoka |
| Kuroda Recycle Co., Ltd. | ③ Head office plant | Hakodate, Hokkaido |
| Toyo Rubber Chip Co., Ltd. | ④ Head office plant | Maebashi, Gunma |
| SYN ECO Inc. | ⑤ Head office plant | Matsumoto, Nagano |
| | ⑥ Plaza Azumino | Azumino, Nagano |
| VOLTA Inc. | ⑦ Head office plant | Fuji, Shizuoka |
| | ⑧ Fujinomiya plant | Fujinomiya, Shizuoka |

| RE100 (Except plants) | | |
|---|---|---|
| ENVIPRO HOLDINGS Inc. | Head office | Fujinomiya, Shizuoka |
| | Laboratory | Fujinomiya, Shizuoka |

RE100 CLIMATE GROUP CDP



① ECONECOL Inc. Head office plant



② ECONECOL Inc. Hamamatsu plant


③ Kuroda Recycle Co., Ltd. Head office plant


④ Toyo Rubber Chip Co., Ltd. Head office plant



⑤ SYN ECO Inc. Head office plant



⑥ SYN ECO Inc. Plaza Azumino


⑦ VOLTA Inc. Head office plant


⑧ VOLTA Inc. Fujinomiya plant

Environment

# Material Balance

## INPUT

### Scrap, Waste 685,000 tons

| | | | |
|---|---|---|---|
| Scrap/waste | Amount processed | Metal scrap | 162,400 tons |
| | | Waste plastic and mixed waste | 37,700 tons |
| | | Scrapped cars | 9,200 tons |
| | | Electronic waste | 8,200 tons |
| | | Wood waste | 7,700 tons |
| | | Waste paper | 7,600 tons |
| | | Waste batteries | 2,500 tons |
| | | Other | 300 tons |
| | | Subtotal | 236,000 tons |
| | Distribution volume | Ferrous scrap | 387,200 tons |
| | | Non-ferrous metals | 13,400 tons |
| | | Waste plastics | 13,100 tons |
| | | Waste paper | 7,900 tons |
| | | Wood pellets/PKS | 9,900 tons |
| | | Other | 2,700 tons |
| | | Subtotal | 434,600 tons |
| Reuse | | Used cars/trucks | 2,048 |
| Raw materials | | Raw materials for rubber chips | 14,400 tons |
| Total inputs*1 | | | 685,000 tons |

*1 Sum of scrap, waste, raw materials (excluding reuse)

## OUTPUT

### Recycled Raw Materials, Finished Goods, and Processing Outsourcing 732,100 tons

| | | | |
|---|---|---|---|
| Recycled raw materials | Amount processed | Ferrous metals (scrap) | 59,800 tons |
| | | Non-ferrous metals | 8,300 tons |
| | | Plastic raw materials | 800 tons |
| | | Fuel raw materials | 28,200 tons |
| | | Wood chip raw materials | 6,000 tons |
| | | Raw materials for paper | 7,300 tons |
| | | Black mass | 800 tons |
| | | Other | 4,400 tons |
| | | Subtotal | 116,000 tons |
| | Amount processed and distributed*2 | Ferrous metals (scrap) | 101,900 tons |
| | | Non-ferrous metals | 3,700 tons |
| | | Other | 1,200 tons |
| | | Subtotal | 106,900 tons |
| | Distribution volume*3 | Ferrous metals (scrap) | 427,200 tons |
| | | Non-ferrous metals | 8,400 tons |
| | | Plastic raw materials | 2,500 tons |
| | | Fuel raw materials | 8,400 tons |
| | | Raw materials for paper | 8,400 tons |
| | | Wood pellets/PKS | 9,900 tons |
| | | Other | 1,600 tons |
| | | Subtotal | 466,700 tons |
| | Total | | 689,600 tons |
| Reuse | | Used cars/trucks | 1,582 |
| | | Maintenance parts | 244 containers |
| Finished goods | | Rubber chip-based products | 12,600 tons |
| Disposal outsourcing | Recycling | Material recycling | 1,000 tons |
| | | Thermal recycling | 14,600 tons |
| | Waste disposal | Simple incineration | 3,300 tons |
| | | Landfilling | 10,700 tons |
| | Total | | 29,700 tons |
| Total outputs*4 | | | 732,100 tons |

### Energy and Water

| | |
|---|---|
| Fuel | 67.0 TJ |
| Electricity | 18.2 GWh |
| Water | 42,400 m³ |

### $CO_2$ Emissions (Scope 1 + 2) 4,700 tons

| | |
|---|---|
| Scope 1 | 4,563.3 tons |
| Scope 2 (location-based standards) | 7,915.7 tons |
| Scope 2 (market-based standards) | 229.1 tons |

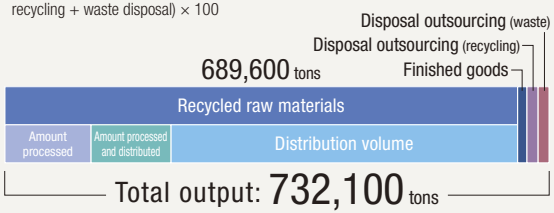
### $CO_2$ Emissions (Scope 3) 152,400 tons

| | | |
|---|---|---|
| Category 1 | Purchased products/services | 8,951.7 tons |
| Category 2 | Capital goods | 2,154.2 tons |
| Category 3 | Fuel and energy activities not included in Scope 1 and Scope 2 | 1,819.9 tons |
| Category 4 | Transport/delivery (upstream) | 135,728.1 tons |
| Category 5 | Waste generated from business | 3,534.0 tons |
| Category 6 | Business travel | 61.5 tons |
| Category 7 | Employee commuting | 217.2 tons |

*We will continue to assess emissions in other categories and elaborate on data from the next fiscal year.

### Resource Recovery Rate* 94.4%

*The recycling rate is calculated from outputs: (amount processed + amount processed and distributed + recycling) ÷ (amount processed + amount processed and distributed + recycling + waste disposal) × 100




*2 Amount of processed resources distributed overseas, etc. *3 Amount of resources distributed through trading company functions *4 Sum of recycled raw materials, finished goods, and processing outsourcing (excluding reuse)




ESG Initiatives

# Social

The ENVIPRO Group conducts its business activities in an environmentally safe and clean manner in the aim of contributing to create a sustainable society.
We promote diversity, aim to be a disciplined group of autonomous individuals with emergent abilities, and are actively involved in community revitalization.

Social

# Establishing a Brand as a Safe and Clean Company

## I. The ENVIPRO Group's Environmental and Safety Activities

To realize a sustainable society, it is essential to have good environmental impact and employee safety management. We work to prevent environmental pollution by introducing measures to prevent potential noise, vibration, dust, and wastewater, mainly at manufacturing plants. In addition to employee safety education, risk prediction activities, and other awareness-raising activities, we regularly patrol our offices and conduct other activities on an ongoing basis to ensure thorough safety management.

Accidents–particularly serious accidents or those at plants or offices involving machinery and plant or heavy equipment–have the potential to affect many stakeholders, including employees and their families, nearby residents, business partners, and investors.

To avoid such impacts, we give topmost priority to managing the surrounding environment, maintaining and improving the work environment, and ensuring the safety of our employees. In this way, we endeavor to ensure stable business activities in accordance with our policies. The ENVIPRO Group is committed to preventing harm to people and the external environment.

## II. Positioning the Environmental & Safety Promotion Committee

### 1. Activities and Role

We have established the Environmental & Safety Promotion Committee, which is responsible for initiatives across the Group companies. The committee's objective is "to establish a brand as a safe and clean company." The committee has established the following three policies, which it is working to fulfill.

**Policy 1** **Create a Safe and Comfortable Workplace**

We conduct hazard protection initiatives before commencing tasks, offer regularly scheduled education and training, run safety competitions, and engage in risk management and other safety activities. We take regular measurements of the working environment, measuring vibration and noise, analyzing water quality, and implementing ongoing improvement activities to create a comfortable workplace.

**Policy 2** **Share Information**

The Environmental & Safety Promotion Committee emphasizes information sharing and empathy. We strive to invigorate committee activities, reporting on individual companies' efforts to roll out their activities horizontally within the Group. The committee also examines causes and shares corrective measures in the event of industrial accidents, other accidents or damage, and environmental abnormalities. We work to prevent recurrence and promote activities in a uniform direction.

**Policy 3** **Raise the Management Level**

The Group's operating companies have acquired certifications under ISO 14001 (environment) and ISO 45001 (occupational health and safety). In addition, each company promotes activities to ensure the safety and health of its employees and to protect the environment through the operation of its management system. Activities of the Environmental & Safety Promotion Committee are reported to full-time directors of ENVIPRO HOLDINGS and the presidents of Group companies at monthly meetings of the Internal Control Committee (chaired by the president of ENVIPRO HOLDINGS). Policies and developments are communicated through the Environmental & Safety Promotion Committee to individual workplaces of each Group company. The Environmental & Safety Promotion Committee consists of members appointed from each Group company, who together with the president actively promote the companies' environmental improvement and safety assurance initiatives.

### 2. Activities to Date

By sharing the details of individual Group companies' discussions and initiatives, the committee helps each of them efficiently and effectively incorporate the items they need. The Environmental & Safety Promotion Committee has rolled out a number of items horizontally across Group companies. These involve risk prediction activities (operational methods), methods for operating prediction activities, maintenance of flower beds at workplaces, installation of drive recorders on forklifts, and the introduction of fire extinguishers for lithium-ion batteries (LIBs) and other rechargeable batteries.

**Structure of the Environmental & Safety Promotion Committee**

**Internal Control Committee**
Chair: President and Representative Director of ENVIPRO HOLDINGS Inc.

Instruction ↓ ↑ Reporting

**Environmental & Safety Promotion Committee**
Members: One or two people from each company

**Group Companies**

- ECONECOL Inc.
- SYN ECO Inc.
- NEWSCON Inc.
- ASTOCO Inc.
- ARBIZ Corporation
- Kuroda Recycle Co., Ltd.
- Toyo Rubber Chip Co., Ltd.
- 3WM Co., Ltd.
- VOLTA Inc.
- ENVIPRO HOLDINGS Inc.

One or two committee members are selected from each company to encourage the bilateral sharing of information.



Firefighting drill


Using a full harness to prevent falls


Using a drive recorder


Conducting first aid training


Measuring the working environment

### ❶ Environmental activities at Group companies

- Employee measurement of the working environment
- Improvement of in-plant stormwater drainage
- Installation of oil collection equipment in the plant's oil/water separation tank
- Addition of in-plant lighting, switch to LEDs
- Fire drills (evacuation and rescue drills)

### ❷ Safety activities at Group companies

- Use of full harnesses to arrest falls when working at heights
- Operation of forklift drive recorders
- Installation of safety devices, safety barriers, and emergency stop functions at existing facilities
- Appointment of people to take charge of safety management at business sites
- On-site inspections in the event of industrial accidents
- Holding of safety competition

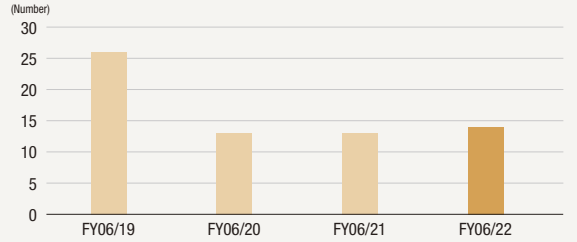
## 3. Results in the Fiscal Year ended June 2022

The number of accidents at the ENVIPRO Group has been trending downward since the fiscal year ended June 2020, following the strengthening of environmental and safety activities and the establishment of the Environmental & Safety Promotion Committee. In the fiscal year ended June 2022, the Group experienced 14 occupational accidents, one more than in the previous year, and 62 injuries, up five year on year.
Over the three years beginning with the fiscal year ended in June 2019, the number of employees at year-end has increased by 80, from 418 to 498. Accordingly, the number of accidents per capital has been generally flat.

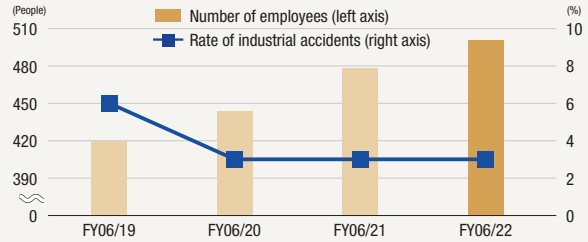
## 4. Future Initiatives

The Group has established an annual activity plan for each company based on the three policies mentioned above and with the objective of "establishing a brand as a safe and clean company." While the ultimate goal is to achieve zero accidents, the entire ENVIPRO Group is committed to implementing the planned activities and reducing the number of accidents year on year.

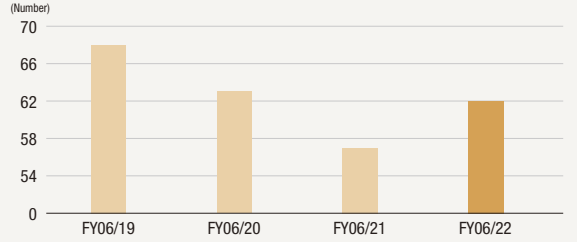
### Industrial Accidents



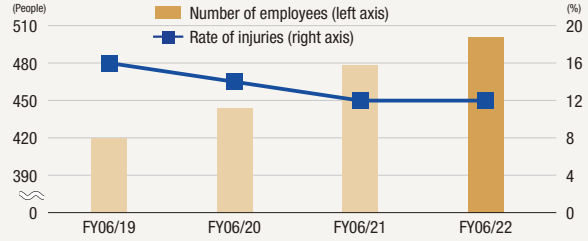

### Number of Employees and Industrial Accidents per Employee*1




### Accidents




### Number of Employees and Accidents per Employee*1




*1 Rates are calculated as (number of cases ÷ number of employees) × 100.

Social

# Aiming to Be “A Disciplined Group of Autonomous Individuals with Emergent Abilities”

As stated in the message from top management, one of the keys for achieving the ENVIPRO Group’s strategy is “investment in human resources to promote business activities.”
Over the medium term, we intend to create 100 business promoters. To achieve this goal, we will focus on the three important areas of hiring, training, and retention.

**Hiring**

The first area of focus is hiring. We are looking for people who share our corporate philosophy, agree with our corporate culture, and are willing to work toward high goals, persevere, and think hard.

**Training**

The next focus area is training. Each of our businesses are working on a variety of projects. Each of these projects offer numerous employees opportunities to participate in training through practice and experience.

**Retention**

The final category is retention. Taking a long-term perspective, we promote job rotation and are flexible about changing positions to help employees gain a variety of experience. We constantly seek to improve compensation through base salary increases, bonuses, and equity compensation.

To implement these measures, we will disseminate the strong message that we expect our employees to foster mutual trust, independent learning, a shared vision, a spirit of challenge, honest effort and respect for others, and the ability to think and act as a concerned party. **(Emergent capabilities)**

It is also important to clarify The Envipro group’s significance in the world (purpose) and to foster a bright and open corporate culture and a culture of joy. To cultivate this corporate culture within the Group, we share the organization’s rules and regulations to be followed, as well as our desired corporate culture, in a Management Plan upheld by all employees. **(A disciplined group)**

## Hiring

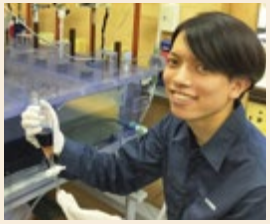
### Kana Miyamoto

**Recycling Raw Materials Department**
**Non Ferrous Raw Materials Section**
**NEWSCON Inc.**

Joined April 1, 2022



I majored in sustainability at university. I came across ENVIPRO when I focused my job search on the recycling industry. I decided to join the company because of its sustainable business of transforming the world’s ever-increasing amount of waste into commercial products, and also because of the appeal of being able to work overseas. It has been six months since I joined the company. Although every day surprises me with the dizzying pace of change in the global situation and fluctuations in exchange rates and the precious and nonferrous metals markets, I enjoy my work and feel a sense of fulfillment. I hope to keep learning, gain substantial knowledge, and grow every day so that I can become like my respected boss.



### Yohei Matsunaga

**Laboratory**
**ENVIPRO HOLDINGS Inc.**

Joined April 1, 2022

In my job search I was looking for a company that was committed to realizing a sustainable society. I was attracted by ENVIPRO because it handles a wide variety of products through several Group companies, has a consulting business, and is taking on new challenges such as the reuse of plastics and LIB recycling. The business itself contributes to society. In graduate school, I studied technologies involving the genetic modification of plants to help address food-related problems. Since I joined the company, I have been working on LIB research, and I am motivated by the fact that I can learn new things from scratch. I hope to learn more, improve, and become better able to speak up at meetings. I am also motivated by the fact that I am in charge of a machine makes up a key component of my research.



New graduates who joined in fiscal 2021

### Hiroki Naka

**Production Section**
**SYN ECO Inc.**

Joined August 1, 2022 (Scrum hiring)



My wife has worked for SYN ECO for 10 years since graduating from junior college, and I wanted to be involved in the Resource Circulation Business, which I think will be of increasing importance in the future. I am also part of SYN ECO, which aims to be a “community-integrated recycling company.” When I joined the company and actually got involved in the work, I was surprised at how much waste from our daily lives can be recycled. At the same time, I often feel that Japanese sense of “mottainai,” meaning I am dispirited by how much we waste. I am still learning about this industry, but I am motivated by my desire to understand the importance of resource recycling better than anyone else and to contribute to the local community on the front lines. I believe that if we can recycle all the waste the world produces, we can better preserve our limited resources for future generations with more care, and we will make the Earth a cleaner place to live. It is very rewarding for me to be involved in such efforts through our business, and to know that I am contributing to society.

#### Scrum Hiring

This phrase refers to “employee-led hiring.” We have adopted this hiring system, in which all employees work together as one. In fiscal 2021, four people joined the Group as a result of scrum hiring of friends, spouses, and family members. To date, this type of hiring has resulted in the hiring of **17 pairs (38 people) and 30 people who were re-hired following retirement**.

# Training Retention

## Corporate Philosophy Briefing Sessions

Peter Drucker once famously said that “Culture eats strategy for breakfast.” We believe in creating a good corporate culture by instilling the most important ideas; we are convinced that this foundation will drive our growth. In “A deep attachment to instill our corporate philosophy”, the president himself briefs small groups on our corporate philosophy about three times a month. We plan and implement these sessions both for new employees and for people who have attended these briefings in the past.



Corporate philosophy briefings are also available on video.

### Number and Percentage of Directly Hired Employees Attending

| Fiscal year | Participants | Directly hired employees | Percentage attending |
|---|---|---|---|
| 2020 | 22 | 562 | 4% |
| 2021 | 48 | 583 | 8% |
| 2022 | 235 | 617 | 38% |

## Business School

### One-on-One Training (Held Seven Times)

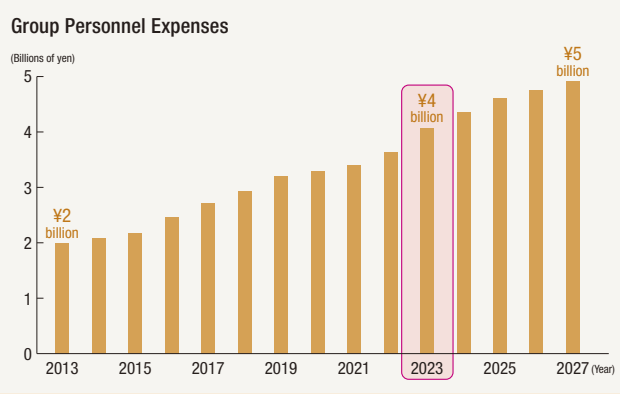
Lecturer: **Fumihiko Shimpo, Industrial Counselor, Advisor ASTOCO Inc.**

For companies to continue producing results over the medium to long term, they must first build a foundation of trust. The role of managers is to support the growth of each individual; this is the purpose of one-on-one training. Through one-on-one training, we are working to improve the psychological safety of our employees, foster a culture of retention and build an environment that encourages challenge. In other words, we are looking to build a culture that embraces the will to take on challenges and permits failure.
We will continue to conduct one-on-one training in fiscal 2022.

### Evaluation System Study Session

Lecturer: **Naoki Takekawa, Director, HR department ENVIPRO HOLDINGS Inc.**

Given our increases in the number of Group companies and personnel, we held a study session to go back to the basics and cultivate a deeper understanding of how the evaluation system works. We have introduced an evaluation system that clearly differentiates between different types of employees. This evaluation system drives higher motivation and employee retention, which in turn leads to the growth of the company as employees work together with enthusiasm.



Personnel expenses have doubled over the past decade, rising ¥2 billion.

### Organizing Problems and Issues

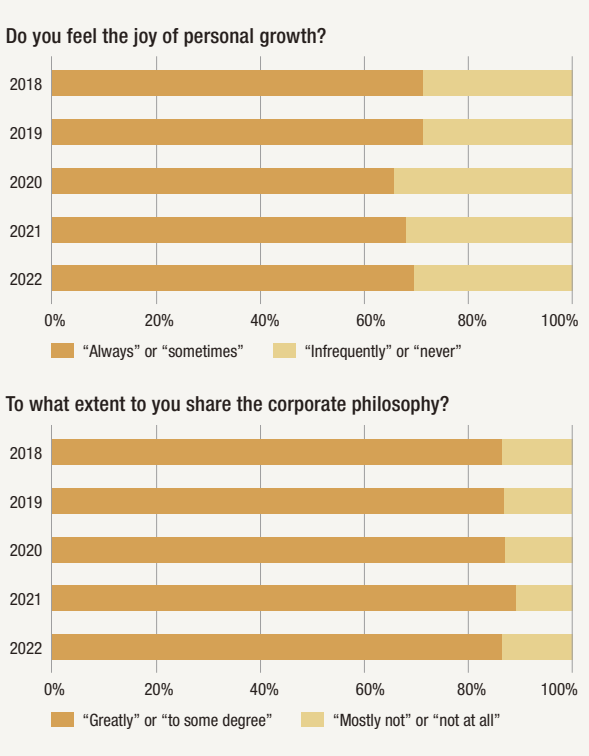
Lecturer: **Yukimi Tsuchiya, Advisor, ASTOCO Inc.**

We held a study session themed on “methods of structuring and leading to the solution of various problems by combining common causes and backgrounds.” Every fiscal year, each department within the Group prepares its own action plan. Participants learn how to identify, recognize, and share problems within their departments, clarify what issues need to be addressed to make improvements and find solutions, and how to take concrete actions and incorporate them into action plans. The implementation plan, which includes a time line and is shared in a tangible form, also contributes to a shared awareness and a sense of participation.

In fiscal 2022, the Business School will continue to plan and hold monthly meetings, mainly for managers, with the goal of “enhancing the level of managers.”

## Employee Satisfaction Survey

Different people define “satisfaction” in different ways. Nevertheless, we conduct this survey each year in the spirit of “sharing benefits and joy with the people who we spend time with.” We believe the president and other members of the management team need to maintain a keen interest in the daily thoughts and feelings of our employees through questionnaires and interviews in order to recognize that there are many things we are unaware of and gaps in awareness between our employees and the people we ask for help from on a daily basis.



Social

# Promoting Diversity

The ENVIPRO Group aims to create a psychologically safe organization by embracing and recognizing individual diversity.
By promoting diversity, we strive to build a "platform" filled with good quality energy where all employees work energetically and provide opportunities for each employee to maximize his or her abilities, which will lead to "increased productivity" and "retention".
We grow in an environment where we can share the same goals, see things from multiple perspectives, and voice different opinions.
The Group will promote diversity in order to expand solutions to social issues. This is the very essence of the Group's business.

## Director Hiroko Nomura Holds Two Diversity Promotion Seminars



Hiroko Nomura
(Appointed director
September 28, 2022)

The Group held a seminar on diversity promotion for managers, with Hiroko Nomura, director, as the lecturer. The Gender Gap Index released by the World Economic Forum in March 2021 ranked Japan 120th out of 156 countries. Although the country is rising in some categories, its overall ranking is declining. This result demonstrates the slow pace of change in Japan, while other countries are accelerating their efforts toward gender equality. The same is true at the ENVIPRO Group. All employees need to be given opportunities to grow and build confidence by breaking out of their shell and accumulating experience, regardless of gender, while monitoring and recognizing their life events (such as growing children).
This seminar provided an opportunity for each participant to rethink about unconscious biases in individuals, in daily work, and in organizations.
In response, we launched a new initiative. For the first time, we conducted a one-month on-site training program for new-graduate female employees at one of the Group's operating companies. We will continue to promote diversity in the aim of creating a working environment that is comfortable for everyone.

## Non-Japanese Employees

In a new initiative, ECONECOL Inc. has welcomed three Vietnamese technical intern trainees.

| | | |
|---|---|---|
| Non-Japanese employees | : | 26 |



Vietnamese trainees Nam, Hoan, and Thi

## Employment of People with Disabilities

The Group has received a special exception for affiliated subsidiaries. Group company SYN ECO Inc. promotes the employment of people with disabilities throughout the Group. This includes making some tasks more conducive to handling by people with disabilities.

| | | |
|---|---|---|
| Employees with disabilities | : | 20 |
| Employment ratio | : | 3.84% |

## Number and Percentage of Employees Taking Childcare Leave

| | | | | |
|---|---|---|---|---|
| Men | : | 2 (17%) | Percentage of female employees returning to work after taking childcare leave | : 80% |
| Women | : | 3 (100%) | Number of employees using the shorter working hour system for childcare | : 100% |

*As of end-June 2022

In the Group, 17% of eligible men were taking childcare leave at the end of June 2022, below the percentage for women. We are working to encourage male employees to take childcare leave.

## Rewarding Work That I Can Do with My Own Discretion



**Naoko Horikawa**
**Manager, Legal Section**
**ENVIPRO HOLDINGS Inc.**

I am excited to be assigned to managerial position and to have a much wider range of tasks. Of course, the more discretion I am given, the more responsibility I have, but I am able to make more of my own decisions and proceed with work based on my own initiative, which makes my job more enjoyable. I believe in the importance of autonomy and openness in team-building within my division. The legal department must use its expertise to support the company, and each member of the department needs to take responsibility for the matters entrusted to them. That being said, there is a limit to what an individual can do, so we need to create teams that benefit from active communication, which in turn generates better ideas.
Being in a managerial position has brought my work closer to the core of the company, putting me in closer contact with the management team and departmental managers. I find it very rewarding to use my expertise and experience to provide support in important matters such as business partner contracts, disputes, and new business.

## Percentage of Female Managers

| | | |
|---|---|---|
| Permanent employees | Men | : 393 (79%) |
| | Women | : 105 (21%) |
| Managers | Men | : 74 (93%) |
| | Women | : 6 (7%) |

**Targets**
Fiscal year ending June 2024
Female managers : 1.5 times
(Compared with end-June 2021)
Fiscal year ending June 2026
Female managers : 2.0 times
(Compared with end-June 2021)

*As of end-June 2022

Social

# Working Actively to Contribute to the Community

## Mamafes Matsumoto

SYN ECO Inc. supports the activities of the Mamafes Matsumoto Executive Committee. This committee is a voluntary organization consisting of people in the city of Matsumoto who are working and raising children. At the company's head office and SYN ECO Plaza Azumino, we collect used picture books, books on childcare, and children's books from members of the public and distribute them to people who need them at a Mamafes event called the Picture Book Giveaway. In fiscal 2021, we collected and gave away more than 2,200 books during the event period. In fiscal 2022, the collection period will not be limited; we will be collecting books on an ongoing basis.










## Mottainai BOX and Giving Back to the Community

SYN ECO Inc. is working with the Yamaga Supporters' Association on the YELL Project. YELL stands for Yamaga Eco-Logy Link and the idea of yelling encouragement to the Matsumoto Yamaga Football Club and to the people in the hometown area through environmental conservation activities, mainly resource collection. On match days, we collect waste paper from the stadium, as well as waste paper brought in by supporters. On other days,



we collect waste from boxes set up by our corporate sponsors and at Mottainai BOX stations in Nagano Prefecture. Some of the profits are returned to the community and Matsumoto Yamaga FC. The company also donates some of the proceeds from the Mottainai BOX in Azumino, Nagano Prefecture. For each specified home appliance (refrigerator, washing machine, air conditioner, or TV) brought to SYN ECO Plaza Azumino, we donate ¥50 to the Nagano Prefectural Children's Hospital every December.

## Creating an Environment to Provide Local Employment of People with Disabilities and Training People with Disabilities. Providing a Cooperative Structure to Contribute to Local Communities

Local residents with disabilities sort resources collected in SYN ECO's Mottainai BOX. ASTOCO Inc.'s pre-employment transition support program facility is located on the same site. By offering training that closely resembles the actual work performed at the company, we provide an environment that allows people with disabilities to understand what employment would be like. This approach helps them to go about their training and work with peace of mind. By collaborating with local people who are in second careers, as well as lecturers, we foster local awareness of and support for people with disabilities.

## Sponsoring the Shimizu S-Pulse Elementary School Children's Invitational Program

As part of its sports promotion efforts, ENVIPRO HOLDINGS Inc. has become the top partner of the Shimizu S-Pulse Elementary School Invitation Program in Eastern Shizuoka Prefecture. This program led to the invitation of five hundred pairs of children attending elementary school and their parents (1,000 people) in the eastern part of Shizuoka Prefecture, as well as one parent or guardian per pair, to a Shimizu S-Pulse home match. We will continue to support the activities of Shimizu S-Pulse, thereby encouraging the dreams of local children and contributing to community development in the region.

## Interviews with Students from Fujinomiya Higashi High School

As part of Shizuoka Prefectural Fujinomiya Higashi High School's cultural festival, students from the school interviewed Fujinomiya-based ENVIPRO HOLDINGS Inc., ECONECOL Inc. and VOLTA Inc. about our business and community relations. In addition to the interview, we provided plant and office tours.







ESG Initiatives

# Governance

The ENVIPRO Group operates a corporate governance system based on its corporate philosophy. The system aims to foster sustainable corporate growth and enhance corporate value over the medium to long term.



Governance

# Promoting Corporate Governance Based on the Corporate Philosophy

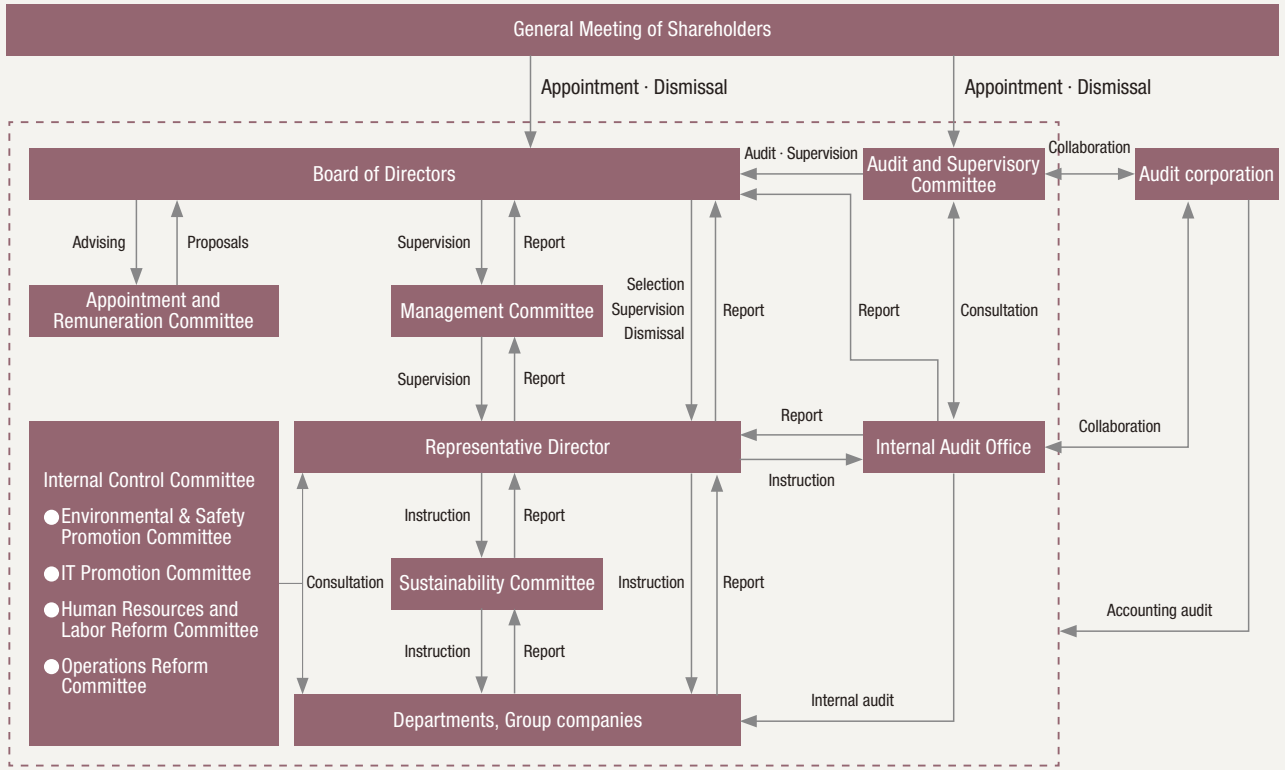
## Basic Approach to Corporate Governance

The ENVIPRO Group recognizes that instilling its corporate philosophy throughout the organization is the most important aspect of governance, and that the strengthening of governance that brings discipline to organizations to sustain growth is a key issue in management. Aiming for sustainable growth and the enhancement of corporate value over the medium to long term, in 2021 the Group disclosed a medium-term management plan (Sustainability Strategy), which will serve as the basis for management decision-making. We will continue to promote our medium-term management plan (Sustainability Strategy) to enhance our economic, environmental, and social value, and strengthen our governance to sustain these values.

### History of Corporate Governance

| | |
|---|---|
| 2010 | ●Established current ENVIPRO HOLDINGS Inc.<br>●Introduced executive officer system |
| 2011 | ●Established Internal Control Committee |
| 2013 | ●Listed on the Second Section of the Tokyo Stock Exchange |
| 2015 | ●Established the Internal Control Basic Policy |
| 2016 | ●Established the Appointment and Remuneration Committee |
| 2017 | ●Established the Audit and Supervisory Committee |
| 2018 | ●Listed on the First Section of the Tokyo Stock Exchange |
| 2019 | ●Performed early delivery of convocation notices (over three weeks in advance) |
| 2021 | ●Disclosed a medium-term management plan (Sustainability Strategy)<br>●Changed the Sustainability Committee to a key meeting body for promotion of the medium-term management plan |

### Corporate Governance Structure




## Board of Directors

Met 15 Times in Fiscal 2022

The company's Board of Directors has 12 members, of whom eight are outside directors (including four members of the Audit and Supervisory Committee). In principle, the board meets monthly. The Board of Directors makes decisions on matters important to the execution of the company's business, and oversees the execution of directors' duties. In fiscal 2021, the Board of Directors met 15 times and had a director attendance rate of 100%. At meetings of the Board of Directors, the president acts as chair to respectfully draw out the opinions of directors, not from the viewpoint of short-term benefits, but rather to discuss even seemingly irrelevant policies or measures and other matters from the perspective of medium- to long-term business growth.

## Reasons for Selection of Skill Matrix Items

- Under our corporate culture, we have selected the item in line with our belief that the most important issue for long-term profits and governance is to ensure that our corporate philosophy permeates every corner of our organization.
- In the area of production technology, we have adopted the item that reflect our need for knowledge of our business areas and production technology to expand our plants and introduce new technology in line with our business investments.
- With respect to business execution related to our CN (carbon neutral) and CE (circular economy) efforts, we had selected items reflecting our need for knowledge of CN realization and CE business development.

## Audit and Supervisory Committee

**Met 14 Times in Fiscal 2022**

The Audit and Supervisory Committee consists of four outside directors. In addition to attending General Meetings of Shareholders and Board of Directors meetings, directors who are Audit and Supervisory Committee members actively participate in internal meetings and work to understand the situation within the company, including the management system and the execution of business. The Audit and Supervisory Committee also meets regularly with the president and representative director to exchange views and maintain communication on issues that the company should address, the state of the environment for auditing by the Audit and Supervisory Committee, and other important matters pertaining to auditing. In order to maintain close collaboration with the Internal Audit Department and the accounting auditor, the Audit and Supervisory Committee holds regular liaison meetings with these and otherwise engages in exchanges of information to enhance auditing functions. In addition to the Internal Audit Office, the committee also collects information from the internal control departments to conduct more thorough audits.

## Appointment and Remuneration Committee

**Met 3 Times in Fiscal 2022**

The Appointment and Remuneration Committee is composed of five members: the representative director and four outside directors who are independent senior executives. As an advisory body to the Board of Directors, it conducts preliminary deliberations on the nomination of director candidates (excluding those who serve as members of the Audit and Supervisory Committee), remuneration for directors, and other matters.

## Management Committee

**Met 12 Times in Fiscal 2022**

The Management Committee consists of the full-time directors and the Chair of the Audit and Supervisory Committee. It may also include some executive officers, department managers, and members of Boards of Directors of group companies, as required for matters to be deliberated. The Management Committee generally meets once a month. to make decisions on specific matters important to the execution of the company's business and on the timely disclosure of information.

### Senior Executive Skill Matrix

| Position in the company | Name | Years in position | Corporate culture | Management strategy | Production technology | Overseas | CN/CE | Finance/ accounting/taxation | Legal compliance | Human resources | IT | IR | Expert knowledge |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| President, Representative Director | Tomikazu Sano | 12 | ● | ● | ● | | | | | | | | |
| Senior Managing Director | Fumikatsu Sano | 12 | ● | ● | ● | ● | | | | | | | |
| Managing Director | Kozo Haruyama | 7 | ● | ● | ● | ● | | | | | | | |
| Director | Naoki Takekawa | 3 | ● | ● | | | | ● | ● | ● | | ● | |
| Outside Director | Yoshiharu Murakami | 12 | | ● | | | | | | | | | |
| Outside Director | Kyuchan Hwang | 12 | | ● | | | | | | | | | Economics |
| Outside Director | Keiji Miyaki | 4 | | ● | | | | | | | | | |
| Outside Director | Hiroko Nomura | Newly appointed | | | | | | | | ● | | ● | Diversity promotion |
| Outside Director (Audit and Supervisory Committee) | Shoji Ide | 11 | | ● | | | | | | ● | ● | ● | |
| Outside Director (Audit and Supervisory Committee) | Takashi Wada | 8 | | | | ● | | | ● | | | | Procurement operations |
| Outside Director (Audit and Supervisory Committee) | Hiroshi Kamiya | 1 | | | | | | ● | | | | | |
| Outside Director (Audit and Supervisory Committee) | Kiyoshi Shinohara | Newly appointed | | ● | | ● | | | ● | | | | Policy |
| Managing Executive Officer | Akiko Ishii | – | ● | | | | | | | | | | |
| Executive Officer | Norihiro Nakasaku | – | ● | ● | | | ● | | | | | ● | |
| Executive Officer | Kenta Imai | – | ● | | ● | | | | | | | | |
| Executive Officer | Yasushi Sugiyama | – | ● | | | | | ● | | | ● | | |

## Sustainability Committee

**Met 12 Times in Fiscal 2022**

The Sustainability Committee consists of full-time directors, executive officers, and some related department managers, meeting once a month. The Sustainability Committee seeks to promote the medium-term management plan (Sustainability Strategy) that forms our strategy for achieving sustainable development for both the group and society. As an organization assisting decision-making by the representative director, it flexibly and actively discusses and examines the status of strategy promotion and future directions, including new business and M&A, from a long-term perspective.

## Internal Control Committee

**Met 13 Times in Fiscal 2022**

The Group has an Internal Control Committee chaired by the company president. This Committee consists of four subcommittees: the Environment and Safety Promotion Committee, IT Promotion Committee, Human Resources and Labor Reform Committee, and Business Operations Reform Committee. The committee identifies risks, formulates countermeasures, and builds and operates internal controls across the Group, including awareness-building activities. The committee enables presidents of group companies and members of subcommittees to set policies, make decisions, and report on important compliance matters, litigation and legal risk matters, and other matters that could have significant impacts on management.

Sustainability Report 2022

# Financial and Company Data



# History of the ENVIPRO Group

## 1950 - 1999

A great leap forward
A foundation for business expansion



The company's first generation, who bought a pile of auctioned properties from a closed foundry

1950 Mar. Katsuyoshi Sano (father of Tomikazu Sano, President of ENVIPRO HOLDINGS Inc.) established SANO MARUKA SHOTEN.

1978 Jul. Reorganized into SANO MARUKA SHOTEN Co., Ltd. with capital of 20 million yen.

1989 Jul. Began management based on our Management Plan.

1992 Aug. Launched trading business.

1997 Jun. Installed large shredder at the head office plant.

## 2000 - 2009

Toward Japan and toward the world
A succession of group developments

2000 Apr. Established Fuji Eco Cycle Co., Ltd. as a joint venture with Fujitsu General Limited.

Jul. Renamed SANO MARUKA SHOTEN Co., Ltd. to SANO MARUKA Co., Ltd.

2001 Jul. Launched plastic recycling business.

Aug. Established refuse paper and plastic fuel (RPF) plant.

2003 Dec. Established ARBIZ CORPORATION as a joint venture with USS Co., Ltd.

2004 Mar. Established corporate philosophy.

Nov. Received Ministerial authorization as a resource recovery facility for automobile shredder residue (ASR) pursuant to the Act on Recycling, etc. of End-of-Life Vehicles.

2006 Jul. Established 3WM Co., Ltd. to engage in the used car and maintenance parts export business.

2007 Jul. Renamed SANO MARUKA Co., Ltd. to ECONECOL Inc.

2008 Feb. 3WM Co., Ltd. established JAPAN COAST USED CARS AND SPARE PARTS TRADING (UAE).

Jun. Acquired a 100% stake in Kuroda Recycle Co., Ltd., which engages in the resource recycling business, making it a subsidiary.

3WM Co., Ltd. established 3WM CHILE IMPORT EXPORT LIMITADA (Chile).



Installation of large shredder

## 2010 - 2015

Establishment of
ENVIPRO HOLDINGS Inc.

2010 May Established ECONECOL HOLDINGS Inc. (current ENVIPRO HOLDINGS Inc.) to effect a transition to a pure holding company.

Jul. Renamed ECONECOL HOLDINGS Inc. to ENVIPRO HOLDINGS Inc.

2011 Apr. Acquired a 100% stake in Recycle Support Service LLC (present SYN ECO Inc.), making it a subsidiary.

2012 May 3WM Co., Ltd. established 3WM UGANDA LIMITED (Uganda) (withdrawal via business reorganization in September 2021).

2013 Sep. Listed on the Second Section of the Tokyo Stock Exchange.

Dec. Established ECOMMIT Inc. (present ASTOCO Inc.) to provide welfare services for people with disabilities.

2015 Feb. ECONECOL Inc. established Ho Chi Minh Representative Office (Vietnam).

Dec. Acquired a 100% stake in Toyo Rubber Chip Co., Ltd., which engages in waste rubber recycling and manufacturing/marketing of rubber products, making it a subsidiary.



Listing on the Tokyo Stock Exchange, an industry first

## 2016 - 2022

Boldly tackling the battery business

2016 Apr. Established Bright Innovation Co., Ltd. to develop the environmental management consulting business.

Oct. Renamed ECOMMIT Inc. to ASTOCO Inc.

2017 Apr. Invested in MINE BIOMASS SYNERGIES PTE. LIMITED (Singapore) to achieve stable procurement of wood biomass fuel.

Sep. Transitioned to a company with an audit and supervisory committee.

2018 Jan. Established VOLTA Inc. to engage in the Lithium-ion Battery Recycling Business.

Jun. Listed on the First Section of the Tokyo Stock Exchange.

Jul. Joined the RE100 initiative.

2019 May Endorsed the TCFD Declaration.

Oct. ECONECOL Inc. established European Representative Office (U.K.).

2020 Apr. Succeeded the trading business of ECONECOL Inc. and established NEWSCON Inc.

2021 Oct. ECONECOL Inc. acquired a 100% stake in Fujimi BMS Co., Ltd. (currently ECONECOL Inc. Wood Recycling Center), a wood recycling company, and made it a sub-subsidiary.

2022 Mar. ECONECOL Inc. absorbed Fujimi BMS Co., Ltd. (currently ECONECOL Inc. Wood Recycling Center)

May Moved listing to the Prime Market of the Tokyo Stock Exchange.

## 2023 - 2050

**Our vision looking 30 years ahead**
**Toward the establishment of a fully decarbonized society**

# Company Profile

| | |
|---|---|
| **Company name** | ENVIPRO HOLDINGS Inc. |
| **Representative** | Tomikazu Sano, President and Representative Director |
| **Established** | May 21, 2010 |
| **Capital** | 1,524,830,656 yen |
| **Business** | Management and operation of affiliated subsidiary companies and associated work |
| **Group companies** | Thirteen consolidated subsidiaries (including second-generation subsidiaries), two equity-method affiliates |
| **Listing** | Tokyo Stock Exchange, Prime Market (Securities Code: 5698) |

**Address**

**Head Office**
87-1 Tanakacho, Fujinomiya-shi, Shizuoka
418-0075 JAPAN
TEL: +81-544-21-3160 FAX: +81-544-21-3163

**Tokyo Office**
Kyobashi RK Building 9F, 2-5-15 Kyobashi, Chuo-ku, Tokyo, 104-0031, Japan
TEL: +81-3-6280-3938 FAX: +81-3-6264-4361




# Group Companies

## Resource Circulation Business

### ECONECOL Inc.
ECONECOL Inc. engages in the resource recycling business, centered on recycling of metals, plastics, and waste.

3507-19 Yamamiya, Fujinomiya-shi, Shizuoka, 418-0111
TEL: +81-544-58-5800
FAX: +81-544-58-5807

### Kuroda Recycle Co., Ltd.
Kuroda Recycle Co., Ltd. is developing a community-based recycling business that pursues the founder's philosophy of "value anything at hand."

246-27 Nishikikyo-cho, Hakodate-shi, Hokkaido, 041-0824
TEL: +81-138-49-8880
FAX: +81-138-49-8960

### SYN ECO Inc.
SYN ECO Inc. is developing community-based recycling businesses that include Mottainai BOX and Katazuke TAI. It has also received commendation as a distinguished company in the employment of the physically challenged.

2346 Shimadachi, Matsumoto-shi, Nagano, 390-0852
TEL: +81-263-47-3211
FAX: +81-263-47-3213

### Toyo Rubber Chip Co., Ltd.
A recycled rubber pioneer that has made effective use of rubber industry resources for half a century, Toyo Rubber Chip Co., Ltd. develops a wide range of applications and contributes to the safety and security of facilities.

1573 Fukazu, Kasukawa-machi, Maebashi-shi, Gunma, 371-0215
TEL: +81-27-285-3131
FAX: +81-27-230-6008

Affiliates accounted for under the equity method

### ARBIZ Corporation
A joint venture with USS Co., Ltd., ARBIZ Corporation engages in a recycling business that adopts a unique system for shredding and sorting scrap cars and other waste, turning it back into resources.

14-24 Showa-cho, Minato-ku, Nagoya-shi, Aichi, 455-0026
TEL: +81-52-619-6600
FAX: +81-52-619-6601

Affiliates accounted for under the equity method

### Fuji Eco Cycle Co., Ltd.
A joint venture with five household appliance companies, including FUJITSU GENERAL LIMITED, Fuji Eco Cycle Co., Ltd. engages in a home appliance recycling business to create a sound material-cycle society that balances the environment and the economy.

1930-4 Nakagawa, Hosoe-cho, Kita-ku, Hamamatsu-shi, Shizuoka, 431-1304
TEL: +81-53-523-1152
FAX: +81-53-523-1153

## Global Trading Business

### NEWSCON Inc.
With a view to becoming "a company that brings the world closer to us," NEWSCON Inc. contributes to international resource circulation through global distribution and sale of ferrous scrap, nonferrous metals, and biomass fuels.

Kyobashi RK Building 8F
2-5-15 Kyobashi, Chuo-ku, Tokyo, 104-0031
TEL: +81-3-3528-6223
FAX: +81-3-3528-6224

### 3WM Co., Ltd.
3WM Co., Ltd. supplies high-quality Japanese used cars and maintenance parts globally. It also promotes global-scale reuse of used cars and maintenance parts through international distribution of used maintenance parts.

Aichi Chikko Bldg. 2F
2-3-5 Hama, Minato-ku, Nagoya-shi, Aichi, 455-0036
TEL: +81-52-659-5200
FAX: +81-52-659-5208

## Lithium-ion Battery Recycling Business

### VOLTA Inc.
VOLTA Inc. performs collection and recycling of nickel, cobalt, and other minor metals from lithium-ion batteries and nickel-metal hydride batteries, as well as recycling of used casings.

55-1 Ohno, Fuji-shi, Shizuoka, 417-0848
TEL: +81-545-67-2522
FAX: +81-545-67-2523

## Other Business

Welfare Service Business for People with Disabilities
Environmental Management Consulting Business

### ASTOCO Inc.
ASTOCO Inc. engages in business that supports people with disabilities in acquiring knowledge and skills, gaining lifestyle stability, and interacting with society, to aid in finding suitable work and becoming self-supporting.

2932-15 Niimura, Matsumoto-shi, Nagano, 390-1241
TEL / FAX: +81-263-31-6098

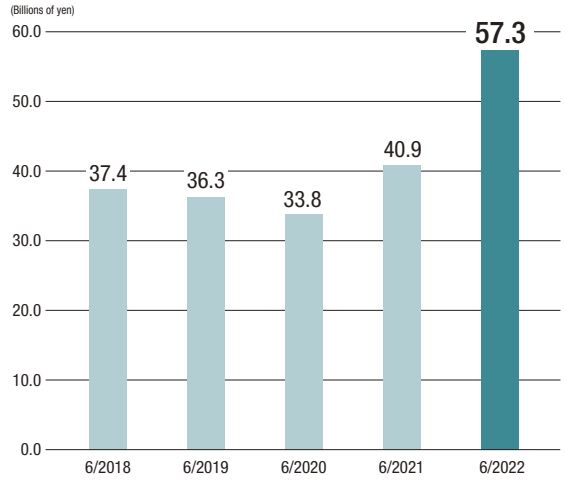
### Bright Innovation Co., Ltd.
Bright Innovation Co., Ltd. engages in consulting services that support the planning of environmental strategies and CO2 reduction strategies, along with business that proposes solutions including the introduction of renewable energy.

SHINKAWA EAST 2F, 1-23-5 Shinkawa, Chuo-ku, Tokyo, 104-0033
TEL: +81-3-6280-3936
FAX: +81-3-6280-3937

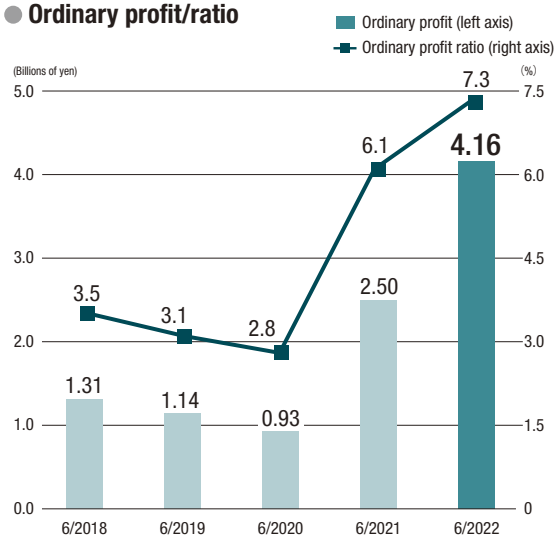
# Financial and Non-Financial Highlights

## Financial

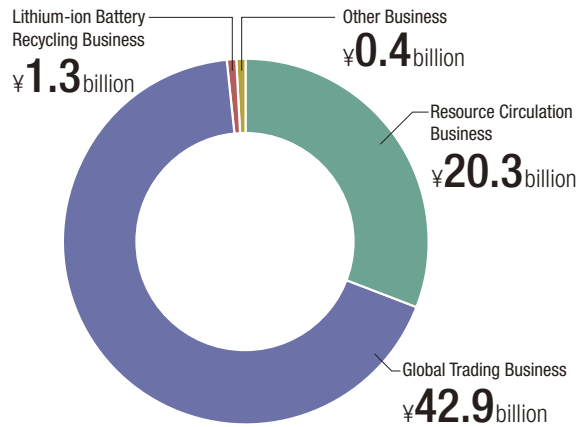
### Net sales




### Ordinary profit/ratio




### Sales composition by segment




## Non-financial

### ENVIPRO Group

- 15 Group companies
- 498 Number of employees (consolidated) (regular employees)
- 10 sites Domestic plants
- 14 locations Yards
- 4 locations Overseas sites
- 53 Trading countries

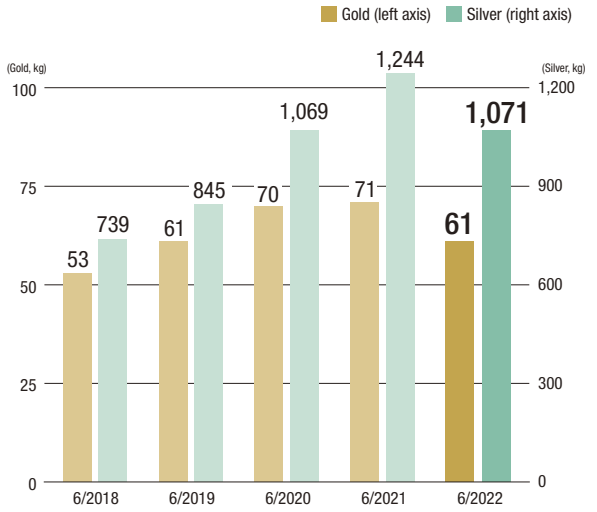
### Amount handled by type

| | | | |
|---|---|---|---|
| Ferrous metals | 588,000 tons | Non-ferrous metals | 17,000 tons |
| Gold, silver, and copper sediment sludge* | 3,000 tons | Rubber products | 12,000 tons |
| RPF and other fuels, raw materials for paper, etc. | 56,000 tons | Black mass* | 800 tons |
| Other | 26,000 tons | Total | 706,000 tons |

* Gold, silver & copper sediment sludge: A mixture of gold, silver, copper, platinum, and palladium
* Black mass: A concentrated sludge of cobalt and nickel, containing carbon

Resource recovery rate 94.4%

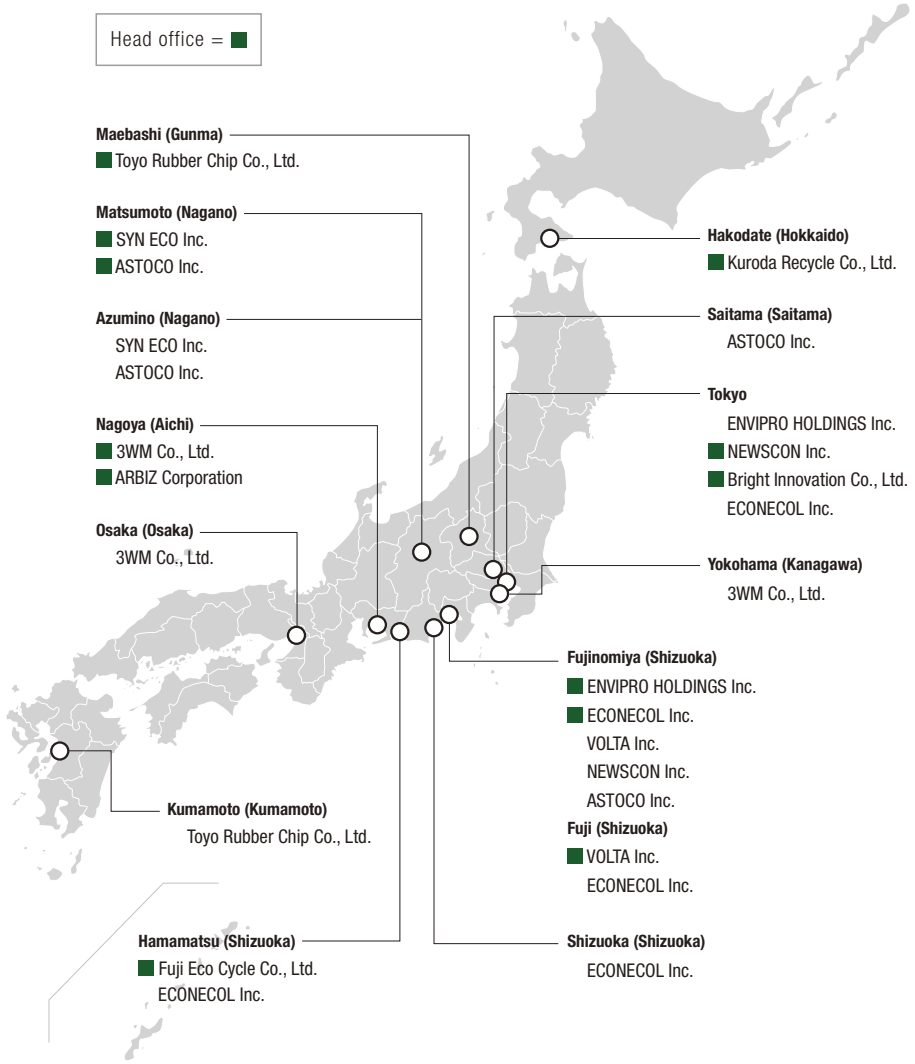
### Precious metals collected



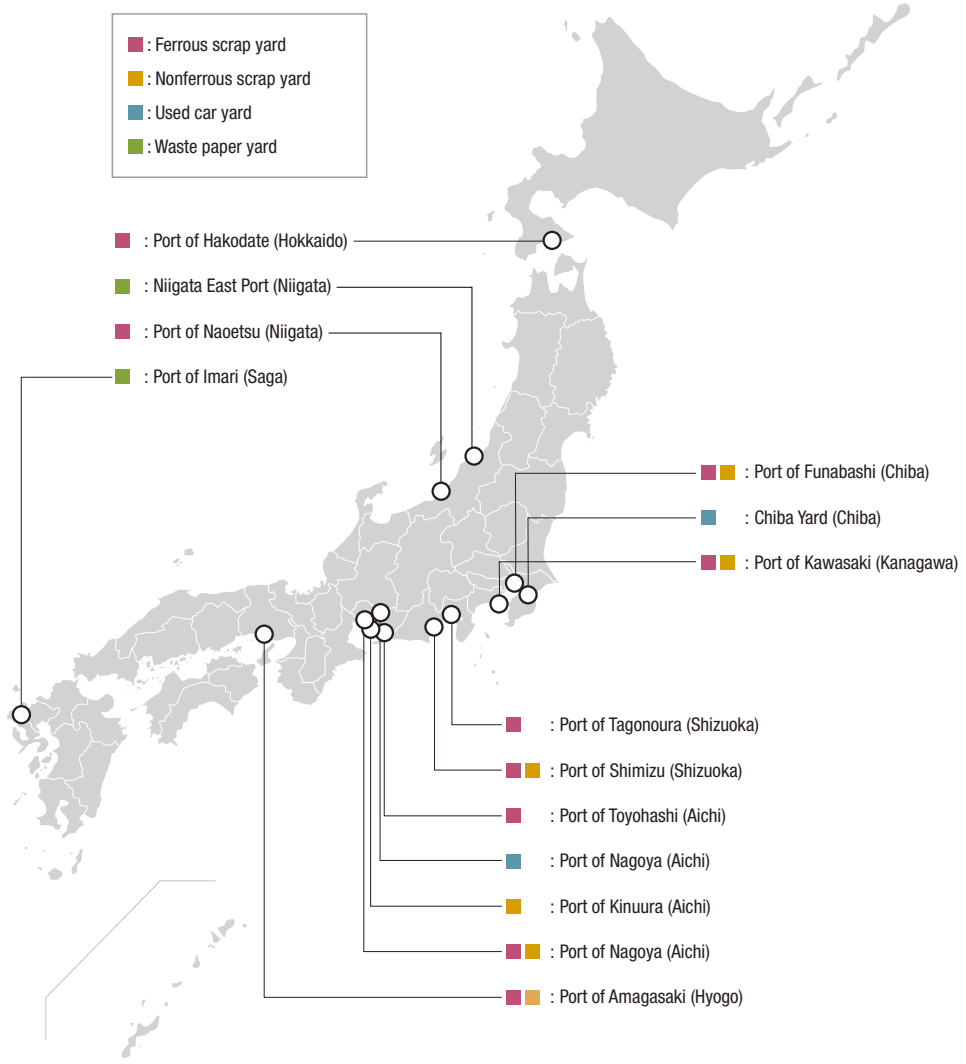
# Locations (Domestic)

Group companies 15 | Domestic plants 10 | Yards 14

## Domestic sites




## Shipping ports



# Locations (Overseas)

Overseas locations 4
Trading countries 53

- Sales sites for recycled resources
- Business sites for used cars



**UK**
NEWSCON Europe Representative Office



**Vietnam**
NEWSCON Vietnam Representative Office



**UAE**
Japan Coast Used Cars and Spare Parts Trading



**Chile**
3WM Chile Import Export Limitada






Inquiries:

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