

Sustainability Report 2019



Your Partner in
ircular Economy

Fundamental support for the social system of resource circulation

ENVIPRO HOLDINGS Inc., a leading resource recycling company listed on the First section of the Tokyo Stock Exchange, is engaged in a Resource Circulation Business (reuse, recycling, and remanufacturing segments) across supply chains in the venous industry (recycling industry), involved in the processing and distribution of ferrous and nonferrous metals, and plastic resources as well as waste management. Having successfully developed the technology to accurately sort and concentrate materials during the crushing and sorting process, we are engaged in resource circulation globally by recycling and manufacturing recycled raw materials. We promote global resource circulation, focusing on ferrous and nonferrous metal scrap and used cars, through our business sites in Asia, Europe, the Middle East, Africa and Latin America in addition to our multiple domestic sites.

Consolidated subsidiaries (including overseas companies)

 **12** companies

Domestic yards

 **12** yards

Domestic processing sites

 **10** sites



Shipping ports

Locations	Yards
Hakodate Port, Hokkaido	Ferrous scrapyard
Naoetsu Port, Niigata	Ferrous scrapyard
Funabashi Port, Chiba	Ferrous scrapyard, Nonferrous scrapyard
Sakura City, Chiba	Used car yard
Kawasaki Port, Kanagawa	Ferrous scrapyard, Nonferrous scrapyard
Yokohama Port, Kanagawa	Used car yard

Locations	Yards
Tagonoura Port, Shizuoka	Ferrous scrapyard
Shimizu Port, Shizuoka	Ferrous scrapyard, Nonferrous scrapyard
Tobishima New Port, Aichi	Used car yard
Nagoya Port, Aichi	Ferrous scrapyard
Minami Port, Osaka	Nonferrous scrapyard
Amagasaki Port, Hyogo	Ferrous scrapyard

Contents

Contents / Editorial policy	02
Company profile	03
Top message	07
Sustainability Strategy	08
Resource Circulation Business	14
Used-cars-related Business	23
Global Resource Circulation Business	24
Society	27
Business foundation / Growth foundation	31
References	35

Editorial Policy

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

Scope of report

The report presents the activities of ENVIPRO HOLDINGS Inc. and the following nine subsidiary companies: ECONECOL Inc., 3WM Co., Ltd., KURODA RECYCLE Co., Ltd., SYN ECO Inc., ASTOCO Inc., TOYO RUBBER CHIP Co., Ltd., VOLTA Inc., Bright Innovation Co., Ltd., and PLA 2 PLA Inc.

Reporting period

July 2018 - June 2019
(The report includes some activities and plans beyond the period specified above)

Overseas sites

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

ECONECOL Europe Representative Office (UK)

*Established on October 1, 2019

Japan Coast Used Cars and Spare Parts Trading (United Arab Emirates)

3WM Uganda Limited (Uganda)

ECONECOL Ho Chi Minh Representative Office (Vietnam)

Mine Biomass Synergies PKS stockyard (Indonesia)

Mine Biomass Synergies PKS stockyard (Malaysia)

Mine Biomass Synergies Office (Singapore)

3WM Chile Import Export Limitada (Chile)

Sales by region

57% Asia

*57% of recycled resources are sold in the Asia region.

35% Japan

4% Latin America

3% North America

1% Africa



ECONECOL Europe Representative Office



ECONECOL Ho Chi Minh Representative Office



Mine Biomass Synergies PKS stockyard (Malaysia)



3WM Chile Import Export Limitada

Company profile

Subsidiary Companies



eCONeCOL
Recycling Innovator

ECONECOL Inc.

Since being established in Fujinomiya City, Shizuoka in 1950, the company has been globally engaged in a recycling business that primarily deals with metal scrap, a processing and sales business that deals with recycled materials including minor metals, plastics and biomass, and a trading business that contributes to the global circulation of recycled resources.

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




3WM

3WM Co., Ltd.

The company globally supplies high-quality Japanese used cars and maintenance parts through its overseas sites in UAE, Chile and others. It also globally promotes the reuse of used cars/maintenance parts through its international transactions of used maintenance parts.

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




Kuroda
Recycling Together

KURODA RECYCLE Co., Ltd.

Since being established in 1922, the company has been engaged in a community-based recycling business in Southern Hokkaido, centering on Hakodate City. It pursues the policy of the founder which is to “value anything at hand,” for instance, by collecting ultrafine precious metals left in the dust.

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




VOLTA

VOLTA Inc.

The company is engaged in the collection and recycling of minor metals, such as nickel and cobalt, from lithium-ion rechargeable batteries, nickel hydrogen rechargeable batteries, and other batteries, the demand for which is expected to further increase. It also undertakes the recycling of casings other than batteries.

3507-19 Yamamiya, Fujinomiya-shi, Shizuoka, 418-0111 (c/o ECONECOL Inc.) TEL: +81-544-66-3132
FAX: +81-544-66-3133



Bright Innovation

Bright Innovation Co., Ltd.

The company offers consulting services to help companies formulate their own environmental strategies, CO2 emission reduction strategies and others, which are becoming increasingly important to their operation and management. It also proposes solutions such as the implementation 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




PLA 2 PLA
株式会社 プラプラ

PLA 2 PLA Inc.

The company is a recycled raw material manufacturer that was established through cooperation between a recycling company and a compounding company. Collecting disposable plastics, it produces pellets (recycled raw materials) that are used for making new plastic products.

14-24 Showa-cho, Minato-ku, Nagoya-shi, Aichi, 455-0026
TEL: +81-52-626-5100
FAX: +81-52-626-5103




SYN ECO
Good Recycling

SYN ECO Inc.

The company is engaged in a community-based recycling business such as “Mottainai BOX” and “Comfortable Life Support” in Matsumoto City, Azumino City, and their environs in Nagano. In 2018 it was awarded a commendation by the governor of Nagano as a distinguished company in the employment of persons with disabilities.

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



As toco
明日が“かがやく”ところをつくる

ASTOCO Inc.

The company helps persons with disabilities find a suitable job and become a self-supporting member of the public, by training them on how to sustain their livelihood and integrate themselves into society, in addition to the job training on relevant knowledge and skills.

2346 Shimadachi, Matsumoto-shi, Nagano, 390-0852
TEL: +81-263-31-3440
FAX: +81-263-48-3067




**株式会社
東洋ゴムチップ**

TOYO RUBBER CHIP Co., Ltd.

The company is a pioneer in rubber-recycling, making effective use of industrial rubber scrap over half a century, mainly operating in Maebashi City, Gunma. It manufactures a wide range of products from the flooring for play equipment in parks and schools, and the flooring for gymnasiums, to railroad crossing panels, which all contribute to enhancing the safety of various facilities.

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



ARBIZ

ARBIZ Corporation

A joint venture with USS Co., Ltd., operating in and around the Chukyo region. It is engaged in a recycling business that crushes and sorts various types of waste including scrap cars, adopting a unique system for turning waste into resources.

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



**株式会社
富士エコサイクル**

Fuji Eco Cycle Co., Ltd.



A joint venture with five household appliance companies including FUJITSU GENERAL LIMITED. Pursuant to the “Home Appliance Recycling Law,” it is engaged in a “Home Appliance Recycling Business” that aims to reduce waste and the disposal of environmentally hazardous materials, and to create a circular society where economic growth and environmental protection are mutually compatible.

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


- Consolidated subsidiaries
- Equity method affiliates

Company profile **Group History**

History before the establishment of the company

1950	Mar.	Katsuyoshi Sano (father of Tomikazu Sano, President/CEO of ENVIPRO HOLDINGS Inc.) established SANO MARUKA SHOTEN.	
1978	Jul.	Reorganized into SANO MARUKA SHOTEN Co., Ltd. with capital of 20 million yen.	
1992	Aug.	Launched a trading business.	
	Oct.	Installed a large shredding machine in the factory at head office.	
2000	Apr.	Established Fuji Eco Cycle Co., Ltd. as a joint venture with FUJITSU GENERAL LIMITED.	
	Jul.	Renamed the company from SANO MARUKA SHOTEN Co., Ltd. to SANO MARUKA Co., Ltd.	
2001	Jul.	Launched a plastic recycling business.	
	Aug.	Established an RPF factory (Refuse Paper and Plastic Fuel production factory).	
2003	Dec.	Established ARBIZ Corporation as a joint venture.	
2004	Nov.	Authorized by the Minister as a resource recovery plant for automobile shredder residue pursuant to the Act on Recycling, etc. of End-of-Life Vehicles.	
2006	Jul.	Established 3WM Co., Ltd.	
2007	Jul.	Renamed the company from 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., making it a subsidiary.	
	Jun.	3WM Co., Ltd. established 3WM CHILE IMPORT EXPORT LIMITADA (Chile).	

History after the establishment of the company

2010	May.	To transition into a pure holding company, established ECONECOL HOLDINGS Inc. (Present ENVIPRO HOLDINGS Inc.) in Fujinomiya City, Shizuoka.	
	Jul.	Renamed the company from 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).	
2013	Sep.	Listed on the Second Section of the Tokyo Stock Exchange.	
	Dec.	Established ECOMMIT Inc.(present ASTOCO Inc.).	
2015	Feb.	ECONECOL Inc. established a Ho Chi Minh Representative Office (Vietnam).	
	Dec.	Acquired a 100% stake in TOYO RUBBER CHIP Co., Ltd., making it a subsidiary.	
2016	Apr.	Established Bright Innovation Co., Ltd.	
2017	Apr.	Invested in MINE BIOMASS SYNERGIES PRIVATED LIMITED (Singapore) for the stable procurement of wood biomass fuel.	
	Jul.	Established PLA 2 PLA Inc. as a joint venture.	
2018	Sep.	Transitioned to a company with an audit and supervisory committee.	
	Jan.	Established VOLTA Inc.	
	Jun.	Listed on the First Section of the Tokyo Stock Exchange. The first company listed on the Tokyo Stock Exchange in the industry * The Second Section of the TSE in 2013 and the First Section of TSE in 2018	

Company Profile

Company Name ENVIPRO HOLDINGS Inc.

Address ● Head Office
87-1 Tanaka-cho, Fujinomiya-shi, Shizuoka, 418-0075, JAPAN
TEL: +81-544-21-3160
FAX: +81-544-21-3163

● Tokyo Office
SHINKAWA EAST 2F, 1-23-5 Shinkawa, Chuo-ku, Tokyo, 104-0033, JAPAN
TEL: +81-3-6280-3938
FAX: +81-3-6280-3937

Representative Director Tomikazu Sano

Established May 21, 2010

Capital 1,524,830,656 yen

Business Management and operation of affiliated subsidiary companies and associated works

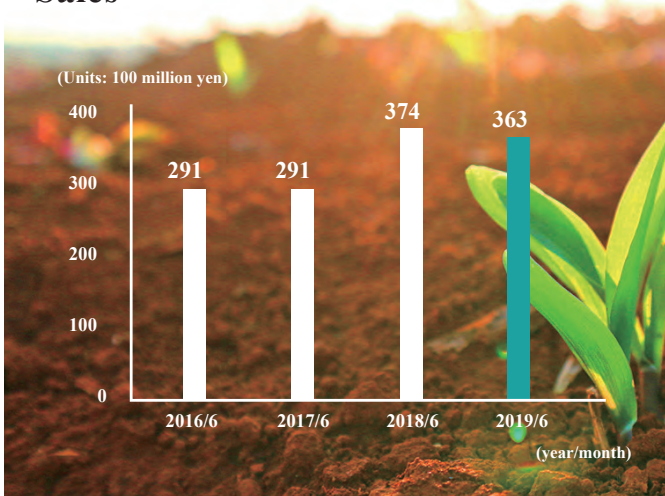
Group Companies Twelve consolidated subsidiaries (including second-generation subsidiaries), two equity method affiliates



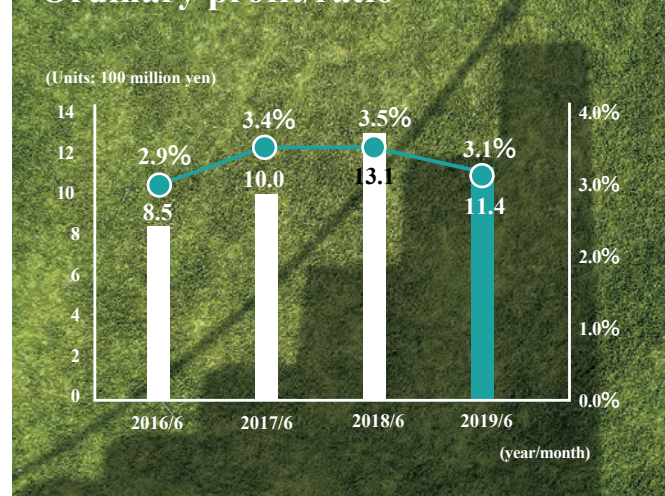
Company profile

Outlook (actual performance in the period that ended June 2019)

Sales



Ordinary profit/ratio



ROE



Precious metals collected

Gold: approx. **61kg**

Silver: approx. **845kg**

Resources processed **258ktons**

Resources circulated **405ktons**

Resource recovery rate



Top Message : Corporate Philosophy

We will exert group-wide efforts to *“contribute to create a sustainable society.”*



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 pursuing 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 Mr. Yoshiharu Shimizu, Mirai Design Research Institute Enishiya
Effective March 20, 2004

Destructive innovation requires every industry to redefine itself, and our company is no exception. To properly respond to this development, we are required not only to have broader views but also to take focused action. Effectively taking advantage of this ambivalence, we are committed to creating a unique business field of our own that cannot be categorized into any existing industry.

As a guiding principle of this commitment, we developed the “Sustainability Strategy” last year. We will support the foundation of social infrastructure by developing technologies which utilize/circulate resources and energy in a sustainable manner, and building a circular system, thereby enhancing the sustainability of society. By espousing our mission, which is to “contribute to create a sustainable society,” we are fully committed to synchronize our growth with the progress made toward a sustainable society, thereby justifying our reason to exist in society. In other words, we will be recognized in society as an “essential company” and create a positive loop whereby our economic value increases as our value in society increases. This is our basic principle set out in the sustainability strategy.

On the other hand, to prepare for unforeseeable changes, we must train our employees and also recruit new employees, as well as having a solid business foundation substantiated by appropriate governance. In addition, our growth foundation must be further strengthened by improving productivity and developing new technologies, new markets, etc. On top of this, we will nurture a corporate culture in which all employees take actions that are consistent with the corporate philosophy, the mission, strategies, key policies, and implementation plans on a daily basis, with both individuals and the organization growing together through our daily activities. The benefits created through this process will help build more alliances and more partnerships. By bringing these together, we will grow into a stronger organization that is full of positive energy.

Go forward with a unified team.

佐野富和

Tomikazu Sano
President, Representative Director
ENVIPRO HOLDINGS Inc.

Sustainability Strategy

Sustainability Strategy to overcome non-continuous changes and to sustain business growth



Sustainability Strategy

(Five-year strategy for the period from FY2018 to FY2022)

Goal

To achieve concurrent sustainability of society and our company

Key policies

Greatly enhance the company’s credibility in society

Effectively demonstrate the HOLDINGS’ leadership within the group to improve corporate governance and promote the brand

Greatly enhance efficiency in the use of operational resources

Consolidate businesses in line with the Sustainability Strategy for the efficient use of operational resources

Greatly enhance productivity

Greatly enhance productivity by making use of new technologies and experience

Mission Statement

The ENVIPRO Group espouses the mission statement, which is to “contribute to create a sustainable society.” The mission statement demonstrates how our group will contribute to society through our businesses, which is our purpose for existing. It indicates the general, unchanging direction for our group to follow, no matter how the times and social environment change. This is also a message to those people who feel empathy with this statement to “work together to this end.”

Sustainability Strategy

To ensure the achievement of the mission above, our group has developed the Five-year Sustainability Strategy (FY2018 - FY2022). By focusing on businesses that address unsustainable conditions in society, we will promote the sustainability of both society and our company.

Based on the corporate philosophy, we will restructure and establish a set of systematized mechanisms, ranging from the mission and the strategies to the implementation plans over years. Linking the Sustainability Strategy with the implementation plans developed by our group companies through the steady operation of the new mechanisms, we will enhance the implementation levels, thereby achieving our mission.

Sustainability Strategy

Verification of business segments to facilitate prompt management decision-making

In the past, our business reports described all activities under the single segment that was the “Resource Recycling Business.” However, in order to develop implementation strategies by segment and facilitate prompt management decision-making in response to the drastically changing economic environment, we have developed multiple segments since June 2019: “Resource Circulation Business,” “Global Resource Circulation Business,” “Used-cars-related Business,” and “Others” that includes “Environment Management Consulting Business” and “Welfare Service Business for Persons with Disabilities”.



Business segment	Description	Company
Resource Circulation	Reuse	Promoting the distribution of used products and maintenance parts without modifying their functionality or value.
	Recycling (Resource recovery)	Promoting recycling by developing highly advanced technologies that can shred metal scrap and waste, and physically sort them by material type based on their different properties.
	Remanufacturing	Manufacturing recycled raw materials and articles out of waste and scrap by taking the advancement of recycling technologies to the next level.
Global Resource Circulation	Promoting optimal global resource circulation through the import/export and trilateral trading of a wide range of resources including metals, plastic scrap, and biomass fuel.	Processing department, ECONECOL Inc. KURODA RECYCLE Co., Ltd. SYN ECO Inc.
Used-cars-related	Stocking high-quality Japanese used cars/heavy machinery and used car maintenance parts such as engines, and exporting them overseas as well as trilateral trading.	TOYO RUBBER CHIP Co., Ltd. PLA 2 PLA Inc. VOLTA Inc.
Others	Offering consulting services specialized in environmental management, including the provision of support for companies to develop their own environmental strategy and CO ₂ emission reduction plan. Further, undertaking the business to help persons with disabilities secure employment by offering on-the-job training to enhance their skills.	Equity method affiliates ARBIZ Corporation Fuji Eco Cycle Co., Ltd.
		Foreign trade department, ECONECOL Inc.
		3WM Co., Ltd. (Including the three overseas subsidiaries)
		Bright Innovation Co., Ltd. ASTOCO Inc.

Sustainability Strategy

Identifying material issues for the realization of sustainable development

In modern times, a wide variety of issues have surfaced which put the sustainability of society at risk, such as the impacts of climate change, anticipated shortages of material resources, the declining birthrate and the aging population. We believe that businesses can play a crucial role in addressing these issues, which will in turn provide them with larger markets and more business opportunities.

In view of our mission statement, which is to “contribute to create a sustainable society,” we examined the strengths of our group and the impact of these issues on business, in addition to requests from society to address such issues and our purpose for existing. We subsequently identified “material resources” and “energy resources” as two material issues to the company.

By explicitly designating the business strategy concerning these material issues as the Sustainability Strategy, we will firmly promote the implementation of any relevant activities.

Process to identify material issues

Step 1

Identifying business risks/opportunities in society

We verified the business and social environments of the company by identifying the issues and risks both inside and outside of Japan that create unsustainable conditions, the directions that society should follow to realize a sustainable society, and any associated business opportunities.

Step 2

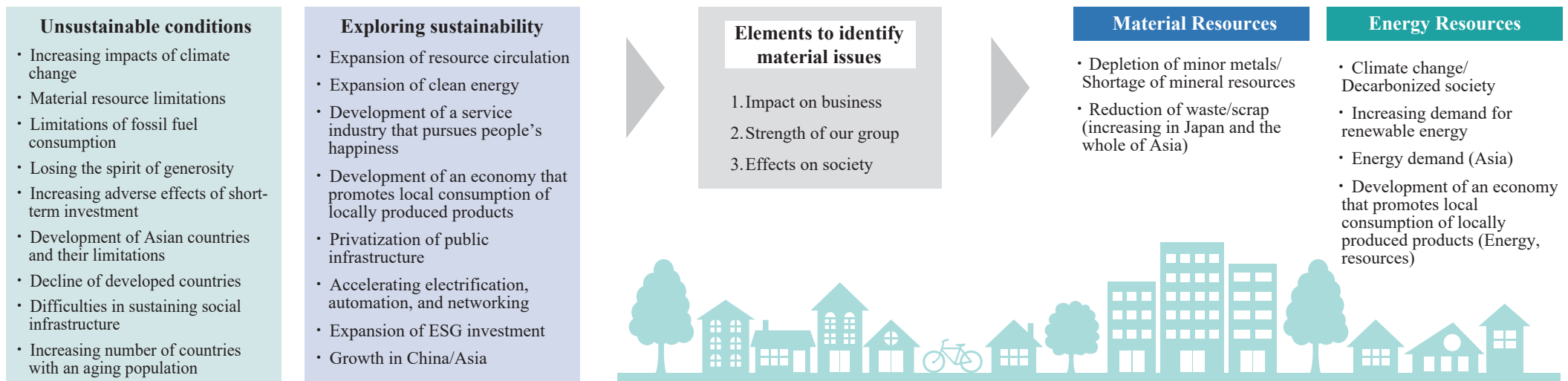
Examining issues from the three points of view

To identify material issues to our company, we examined the identified business risks and opportunities against the three elements that specify material issues: “impact on business,” “strength of our group,” and “effects on society.”

Step 3

Identifying material issues

After identifying “material resources” and “energy resources” as our two material issues, we used them to verify the direction of our company and developed the Sustainability Strategy by applying a backcasting approach.



Sustainability Strategy

Various activities for the achievement of Sustainable Development Goals (SDGs)

The ENVIPRO Group has specified some SDGs that are particularly relevant to the business and our mission statement, which is to “contribute to create a sustainable society,” and has been implementing various activities which contribute to the achievement of SDGs, particularly focusing on those specified above.

What are the Sustainable Development Goals (SDGs)?

The Sustainable Development Goals are a collection of international development goals to be achieved between 2016 and 2030, which was adopted by the UN Summit held in September 2015. They consist of 17 goals and 169 targets to realize a sustainable world and pledge to leave no one behind.



Goal 1: Poverty



- With the improvement of the efficiency and the profitability of our business, including those of the Resource Circulation Business, we will increase the income of the employees and improve their quality of life.

Goal 3: Health



- We prevent water and soil pollution and contamination by properly managing scrap materials at our plants which comply with safety and environmental standards.

Goals 4 and 10: Education/Equality



- Under government sponsored programs such as the pre-employment transition support program and the type B continuous employment support program, we provide an environment where persons with disabilities are able to acquire knowledge and skills, and support them to be continuously engaged in rewarding work.



Goals 5 and 8: Gender/Working Environment



- We have created an environment where employees can choose a working style that fits them best, by introducing various systems including those for permanent employees with shorter working hours and telecommuters in order to meet the different needs of employees including female employees with small children.



- We thoroughly implement measures to prevent work accidents in order to ensure the safety of employees.

Goal 7: Energy



- We joined “RE100*1” in July 2018, setting a goal to match 100% of the electricity consumed in our business activities with electricity generated from renewable sources by 2050. We have adopted renewable energy to power our factories, and promote the introduction of renewable-energy power systems such as the installation of solar panels on factory roofs.
- We promote international transactions of PKS (Palm Kernel Shell) by establishing container yards in South East Asia. We will contribute to increasing the supply of sustainable biomass fuel by expanding our involvement in the supply of wood pellets in the future.

*1: RE100: a global initiative which brings together companies committed to using 100% renewable energy for the electricity consumed in their businesses.

Goals 9 and 12: Technology Innovation/Consumption and Production



- We contribute to the circulation of limited resources and reducing waste by engaging in the recycling business to collect precious metals from metal scrap and waste, and the remanufacturing business to produce recycled raw materials. Moreover, we aim to establish a sustainable consumption and production mechanism by further developing the technologies and experience that we have nurtured over the years. To this end, in 2018 we established a new laboratory in ENVIPRO HOLDINGS Inc.



Goal 11: Community Development



- “Syn Eco Plaza Azumino” contributes to revitalizing the local community and the development of a sustainable community through recycling and creating employment: the collection and recycling of waste and items disposed by households, and the hiring of persons with disabilities at the factory.

Goal 13: Climate Change



- We contribute to the reduction of CO₂ emissions across supply chains through our engagement in the recycling and remanufacturing businesses, the mainstay of our company. Furthermore, we promote CO₂ emission reductions in the recycling and manufacturing processes by promoting the purchase of electricity generated from renewable sources and adopting a renewable-energy power system.
- We help companies reduce CO₂ emissions by providing consulting services for them to formulate their decarbonization strategies as well as solution services such as the adoption of renewable energy.
- We endorsed the “TCDF (Task Force on Climate-related Financial Disclosures) recommendations” in May 2019. We will analyze the risks and opportunities of climate change on our businesses and integrate them into our business strategies.

Goal 14: Marine Resources



- We contribute to preventing marine pollution caused by plastics by developing technologies which sort waste plastics and recycle them into pellets, and expanding the range of recycled raw material use.

Goal 17: Partnerships



- We contribute to promoting global resource circulation and the control of environmental pollution through the export of reusable products, including used cars from Japan and international transactions of resources.
- By joining the following initiatives, we acknowledge our engagement in environmental businesses and promote activities which will lead to the realization of a sustainable society.
 - Japan Climate Leaders’ Partnership (JCLP)
 - RE100
 - CDP² Scoring partner

*2 CDP: Global initiative concerning the disclosure of climate change-related information.

Sustainability Strategy

Sustainability Strategy Highlights

Lithium-ion Battery Recycling Plant operations

Operations at a recycling plant for lithium-ion batteries started in September 2018. It promotes the collection of minor metals (cobalt, nickel, etc.) from batteries. →P.17



Launching of High-Filling High-Speed Melting Business

In June 2019, we introduced a new technology to mix and fuse materials together that an ordinary kneader finds difficult to mix. In collaboration with the manufacturers of basic materials and others, we are engaged in developing various uses for recycled materials. →P.21



Obtained a patent for a technology related to the collection of precious metals from waste incineration ash

In May 2019, we obtained a patent for a technology to collect precious metals from waste incineration ash discharged by general waste disposal facilities. As of June 2019, we concluded agreements with three municipalities for the purchase of riddling ash. In FY2018, 22.7 kg of gold and 162.5 kg of silver were collected from waste incineration ash. →P.16



TOYO RUBBER CHIP Co., Ltd. has become an "RE100 Factory"

In May 2019, TOYO RUBBER CHIP Co., Ltd. successfully achieved 100% of the electricity consumed by the factory with renewable energy, becoming an "RE100 factory." Priority will be given in receiving electricity from the Komiya Solar Power Plant owned by a group company. →P.22



Opening of Syn Eco Plaza Azumino

Syn Eco Plaza Azumino, a recycling center for regional circular and ecological economy through recycling, was opened in April 2019 with the aim of helping to address social issues in the community through recycling and employment creation. →P.19



New laboratory established under ENVIPRO HOLDINGS, Inc.

The laboratory was established in order to develop core technologies through the assessment of recycling technologies, analysis of recycled raw materials, accumulation of data, and acquisition of technical know-how. →P.33



Mottainai BOX Approved by the "Regulatory Sandbox Framework"

Approved by the Regulatory Sandbox Framework, we installed the "Mottainai BOX" in 13 municipalities across the northern part of Nagano in April 2019. Using IoT to manage the collection boxes installed across a wide area, we promote the efficient collection of material resources and the improvement of recycling rates. →P.20



Procurement of the retired dedicated aircrafts of Japanese government

In May 2019, we concluded the purchase and sale agreement for two retired dedicated aircrafts of Japanese government (B747-400), after winning a tender invited by the Air Self-Defense Force. They were handed over at the end of June in the same year. We sold used parts to buyers as resources to be recycled. →P.25



Sustainability Strategy

Circular Economy and Our Group Businesses

What is the Circular Economy?

In recent years, the circular economy concept has been gaining considerable attention. This is an alternative economic system to the linear economy which is characterized by mass-production, mass-consumption, and mass-disposal, and the one-way flow of materials. The circular economy is aimed to reduce wastes and instead use them circularly as resources.

It is intended to address environmental issues while achieving economic growth by creating the maximum added value with the minimum investment. This concept is totally consistent with the goal of our Sustainability Strategy, “to achieve concurrent sustainability of society and our company.”

Risks and Opportunities

The circular economy is expected to change economic models from the simple selling of products to the sharing of products, and the selling of experiences and functions. Furthermore, the flow of wastes and resources will be potentially adjusted in accordance with whoever owns the products.

Moreover, if manufacturers start getting involved in the procurement of necessary resources or recycled raw materials, the boundary between arterial (product supplying) and venous (recycling) industries may disappear, potentially leading to new competition among industries. This could pose business risks for our group.

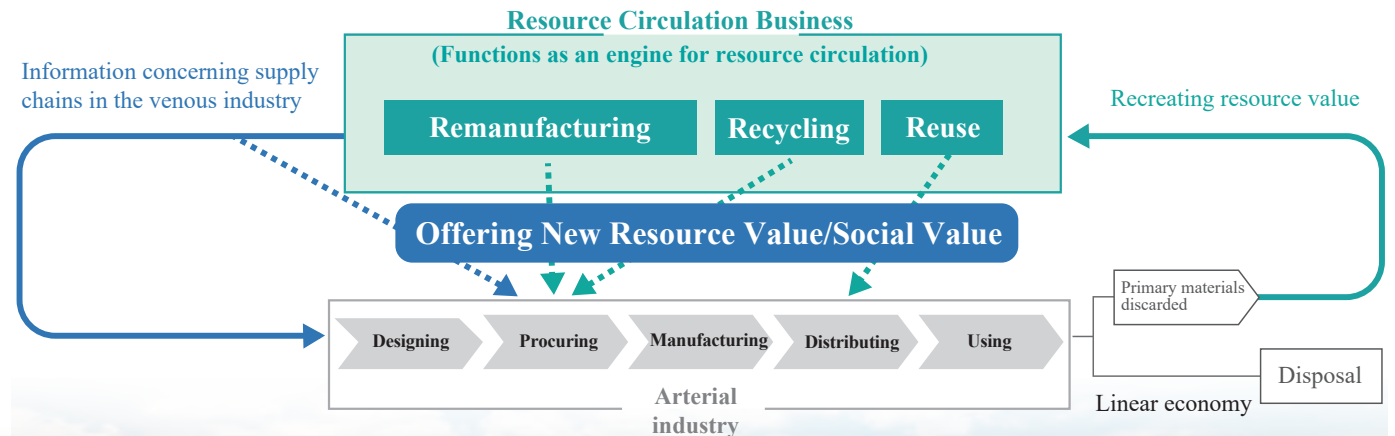
On the other hand, there are also various potential business opportunities such as the expansion of recycled raw material use and markets, and the emergence of new business models through the development of IoT in the venous industry. Our group needs to decide on our positions where we can take the maximum advantage of our strengths.

Circular Engine of the Circular Economy

The circular economy aims to provide another value for materials that were once discarded. Our group’s Resource Circulation Business offers social value to consumers by giving them the opportunity to choose eco-friendly products. It creates new resource value for disused primary materials. Therefore, our group believes that we can play a crucial role in the circular economy, performing the function of an engine for resource circulation.

Focusing on the reuse, recycling and remanufacturing of materials, we will promote the finest technologies for resource circulation across supply chains, and the development of arterial-venous collaboration systems through partnerships with manufacturers. Through these engagements, we will grow into a company that is truly appreciated in a society which is experiencing a transition to the circular economy.

Roles of Our Businesses in the Circular Economy



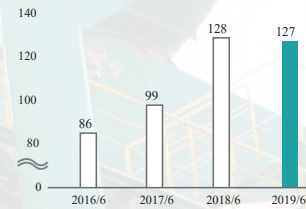
Resource Circulation Business

Resource Circulation Business that enhances the sustainability of a society

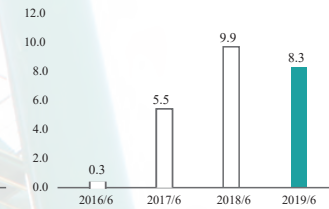
Population explosions and the development of developing countries have increased resource consumption across the world. Continuous resource consumption will cause depletion and generate enormous levels of waste, creating environmental problems such as waste plastics flowing into the sea, which is becoming increasingly serious. It has been arousing concerns about the sustainability of a society.

The ENVIPRO Group promotes the resource circulation business as our key business to achieve our mission statement that is to “contribute to create a sustainable society.” We offer new value to society, engaging in the effective utilization of limited resources, waste reduction, and the production of recycled raw materials from waste, by promoting the reuse, recycling, and remanufacturing of materials that were disposed of as waste.

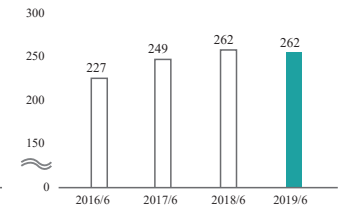
Sales (Units: 100 million yen)



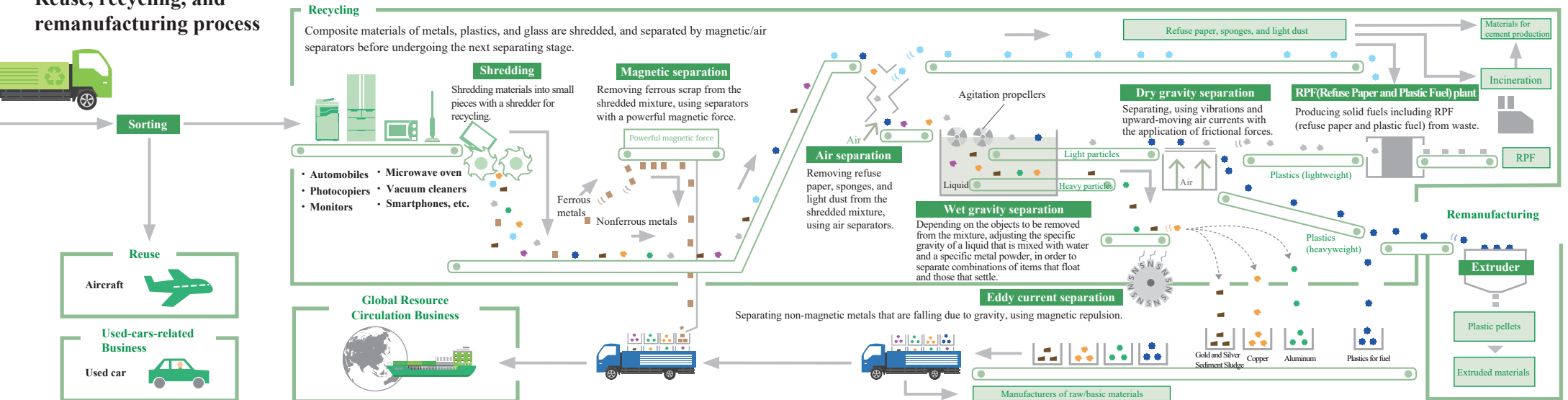
Ordinary profit (Units: 100 million yen)



Handling volume (Units: 1,000 tons)



Reuse, recycling, and remanufacturing process



Three key businesses

The ENVIPRO Group operates the resource circulation business, focusing on the following three businesses as its key components.

1. Recycling Business (resource recovery)

Our group has been engaged for more than half a century in a recycling business in which metal scrap, waste and others are crushed, and physically sorted into ferrous and nonferrous metals, gold, silver, and copper sediment sludge(mixed metals), plastics, etc. based on differences in their properties. With the use of advanced sorting technologies based on the above-mentioned technologies as well as our accumulated know-how, it is possible to condense and collect ultrafine precious metal particles from both waste incineration ash and ASR* that seemingly contain no precious metals. Furthermore, with regard to waste plastics, we have achieved a recycling rate of approximately 97.6%, minimizing simple incineration and landfilling by producing RPF for thermal recycling.

*ASR: Abbreviation of Automobile Shredder Residue. The residue which remains after end-of-use vehicles are dismantled and shredded to remove chlorofluorocarbons and their parts, such as air bags, doors, and engines, and to collect useful metals.

2. Remanufacturing Business (re-production)

Our group promotes and actively invests in the “Remanufacturing Business” which aims to manufacture recycled raw materials out of waste and scrap by taking recycling technologies to the next level. We are engaged in manufacturing recycled resin pellets from waste plastics, rubber chips from waste tire rubber, and recycled cobalt and nickel materials from lithium-ion batteries.

To become a manufacturer of recycled raw materials for products, we must maintain product quality, fabricate prototypes, ensure a stable product supply, guarantee delivery schedules, and others. We need to have totally different viewpoints in order to develop technologies and business know-how from the recycling businesses. We are now taking up these new challenges.

3. Reuse Business (reuse)

We are engaged in a reuse business that distributes used products and maintenance parts without modifying their functionality or value. The volume of metal scrap and waste will inevitably decrease in Japan where more people share goods and products, and where the population is declining. Therefore, for our group which is engaged in the resource circulation business based on these materials, our involvement in the reuse business is important from the viewpoint of securing materials for our key businesses.



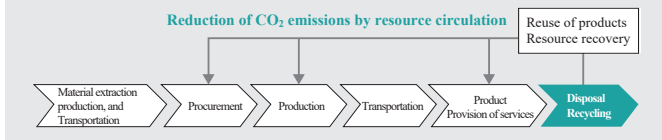
Topics

CO₂ reduction throughout the product lifecycle

To realize a sustainable society requires the efficient utilization of not only material resources, such as mineral resources, but also energy. Most materials, including steel and plastic products, which are currently distributed throughout society, are made from natural resources such as iron ore, petroleum, etc. The manufacturing processes for these materials consume vast amounts of energy.

Our group promotes the dissemination of materials produced from waste through the resource circulation business which is engaged in the sorting/collection of iron from metal scrap and the development/manufacturing of recycled pellets from waste plastics. In turn, we contribute to reducing the amount of energy use and CO₂ emissions throughout the product lifecycle including the procurement of raw materials.

Resource circulation of product materials contributes to the reduction of CO₂ emissions throughout the product lifecycle



Resource Circulation Business

Collection of precious metals from waste incineration ash (riddling ash)

Undertakings to collect metals from so-called “urban mines,” such as scrap cars and disposed home appliances, have been gradually recognized in society since the Act on Promotion of Recycling of Small Waste Electrical and Electronic Equipment was put into effect. Nevertheless, a significant proportion of waste incineration ash that contains a large quantity of metals is still landfilled without being recycled, although some is recycled as materials for cement production. Based on our research and accomplishments over the years, we have successfully developed the technology to collect precious metals from waste incineration ash discharged by general waste disposal facilities, for which we obtained a patent in May 2019. Through the application of this technology, we have not only improved the recycling rate of waste/precious metals but also contributed to reducing the landfilling of waste incineration ash.

● Purchase history from municipalities: collection of precious metals from riddling ash

Riddling ash generated during waste incineration generally has a high metal content, which can be collected as valuables without modifying their properties. ECONECOL Inc. concluded agreements with three municipalities* for the purchase of riddling ash as of June 2019. By expanding this undertaking to other municipalities across the country, we will contribute to the effective use of resources and the reduction of landfilling.

* Three municipalities: Inzai District Environmental Service Association (Chiba), Tottori Chubu Furusato Wide-area Federation (Tottori), and Tama Newtown Environment Association (Tokyo)

● Joint venture with Taiheiyo Cement Corporation: recycling of incinerator bottom ash

Compared with riddling ash, the ash collected from the bottoms of incinerators has a low metal content and is considered difficult to recycle. ECONECOL Inc. has engaged in a joint venture with Taiheiyo Cement Corporation, aiming to collect precious metals from incinerator bottom ash and to recycle the ash after the precious metals are removed in order to produce materials for cement production. We have installed equipment for verification tests in the Ofunato Plant of Taiheiyo Cement and are currently undertaking the tests in collaboration with REVER HOLDINGS CORPORATION, in preparation for commercializing this technology.

Volume of waste incineration ash collected

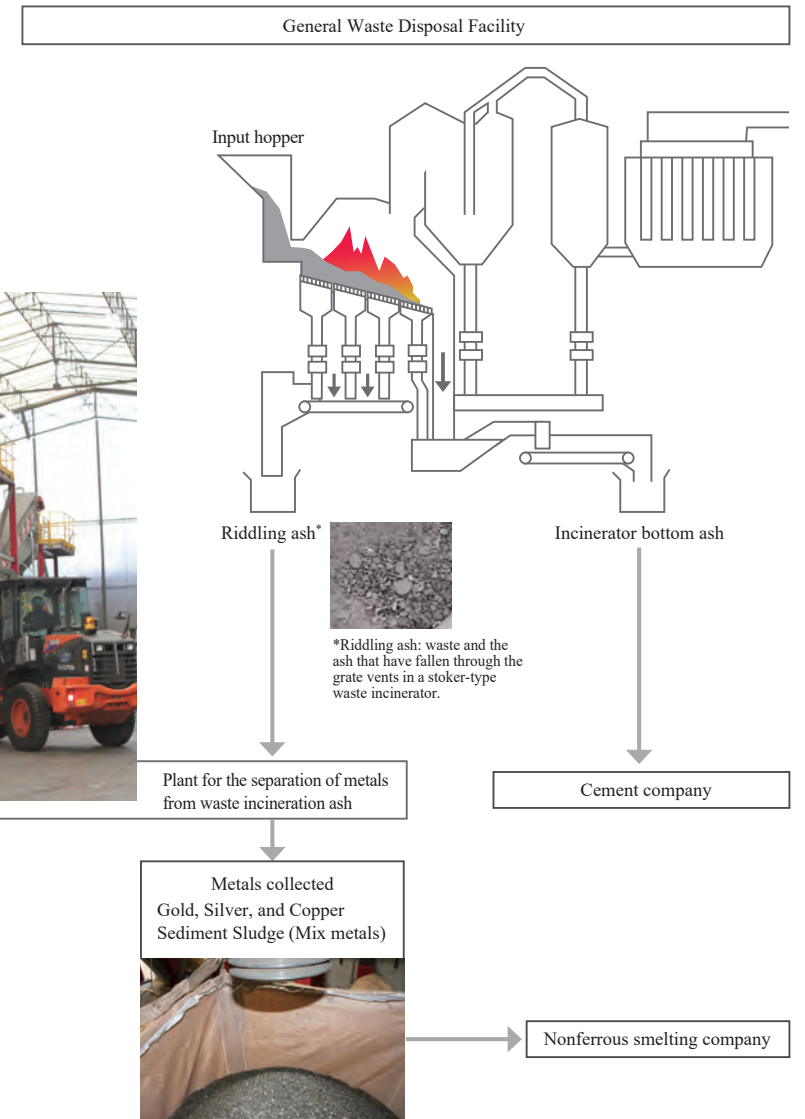
Approx. **2,008 tons**
(FY2018)

Volume of precious metals collected from waste incineration ash

Au (gold) Ag (silver)
Approx. **22.7 kg** Approx. **162.5 kg**



Metal collection process from waste incineration ash (riddling ash)



Resource Circulation Business Recycling of lithium-ion batteries

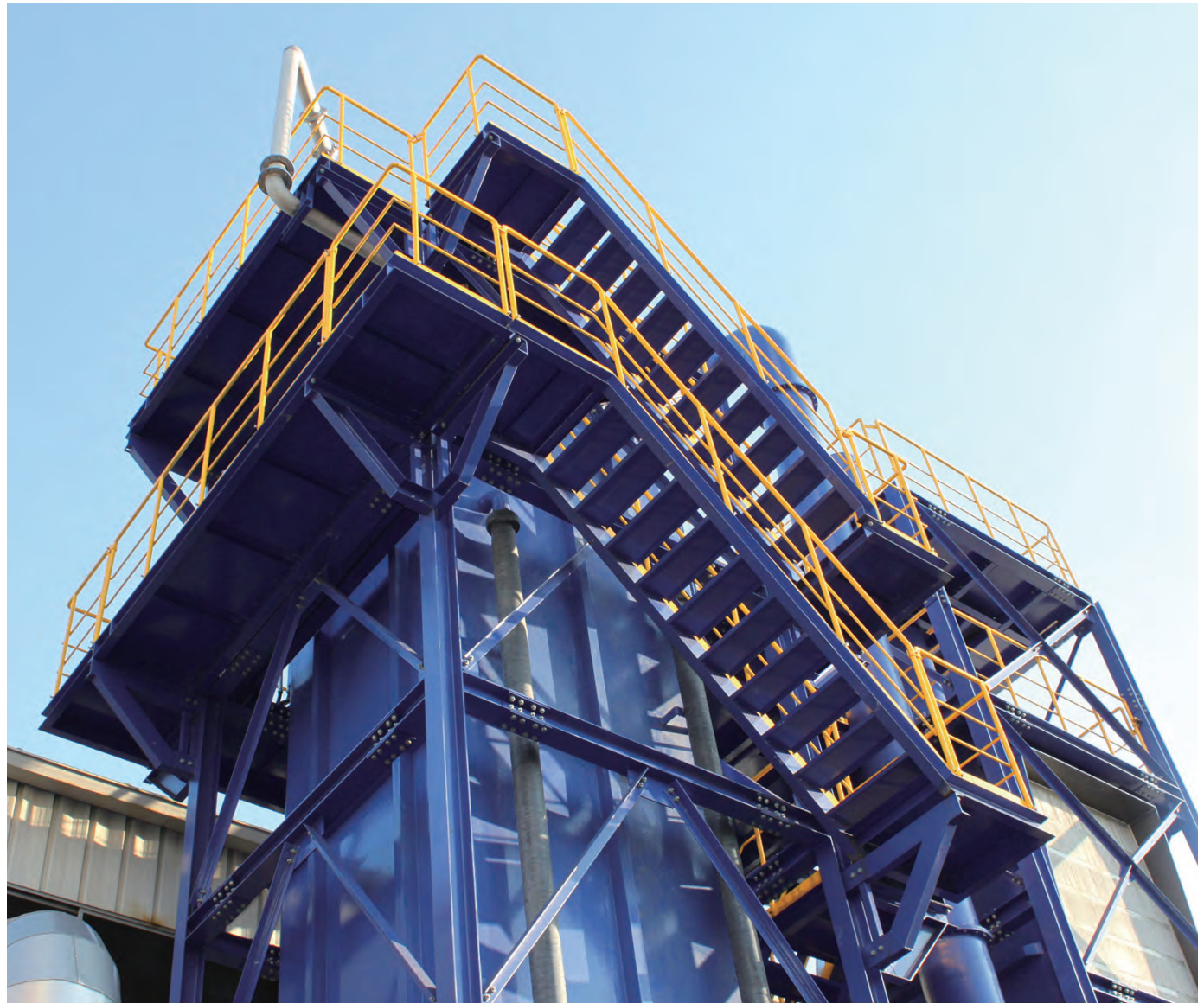
Minor metals such as nickel and cobalt are known as the “vitamins of industry” because these metal materials are indispensable to the high-tech and electronic industries. However, the depletion of materials is now causing great concern because the expansion of relevant industries has been increasing the demand for minor metals. VOLTA Inc. focused its attention on particularly the inputs of lithium-ion batteries, and is currently engaged in the recycling of minor metals (cobalt, nickel, and lithium) that are used in lithium-ion batteries. Lithium-ion batteries are widely used in home appliances, such as smartphones and electric cars, and the demand is expected to further grow in the future. The company contributes to the realization of a sustainable society, promoting resource circulation by supplying the collected minor metals back to battery manufacturers.

In FY2018, the company made a large investment to ensure the safe discharge of electricity and to create a system for prompt recycling. Furthermore, it constructed a factory equipped with a unique exhaust treatment system in order to enhance the safety of residents and the neighborhood environment. We will strive to promote lithium-ion battery recycling and to improve the recovery rates by further promoting technological innovation in the future.



Black sand

* Black sand: a mixture of cobalt, nickel, and others that is produced by the calcination of lithium-ion batteries. By smelting Black sand, recycled cobalt and nickel are produced.



Resource Circulation Business

Recycling of ASR

ASR Recycling Business

KURODA RECYCLE Co., Ltd. is engaged in the recycling business of Automobile Shredder Residue (ASR), which remains after end-of-use vehicles are dismantled to remove chlorofluorocarbons and their parts, such as air bags, doors and engines, and shredded to collect useful metals.

ASR contains metal particles that were not collected during the shredding process. By further separating/pulverizing and kneading ASR, the company successfully collects the metal particles and recycles them as materials for cement production, thereby contributing to improving the recycling rates of scrap cars.

There are only a small number of ASR recycling facilities nationwide. Hence, the company's facility in Hakodate City, Hokkaido, accepts ASR from outside of Hokkaido.



ASR Recycling Facility

Dealing with wood waste/materials that are difficult to dispose

Demand is expected to increase for disposal of wood waste generated through demolition of buildings. In light of this, the company constructed an additional pulverizing plant to increase the volume of wood waste to be recycled as fuel chips, etc. Furthermore, this plant accepts materials that can be neither shredded nor crushed, such as fishing equipment, which causes disposal problems for people in the fishing industry. The company will proactively increase the number of accepted products, including materials that are difficult to dispose, thereby expanding the range of products which they can recycle.

Topics

Resolution of waste management problems inherent in each community

The company is located in the seaport town, Hakodate City. It works on resolving waste management problems inherent in Southern Hokkaido through the "Comfortable Life Support*" business. In recent years, it has focused on the management of scrapped vessels, ranging from small fishing boats that can be transported by truck as they are, to large-scale fishing vessels that need to be dismantled on site. In this business, it adopts a bracket contract. Hakodate is also a snowfall area. The company undertakes the preemptive demolition and removal of houses, backyard sheds, containers, etc. that are anticipated to collapse due to snowfall.

As described above, the company offers various services in response to the different needs of customers in local communities, making use of its extensive knowledge and experience related to recycling.

*Comfortable Life Support: a business that addresses a wide range of issues faced by local residents through, for instance, the disposal of disused articles, the removal and disposal of articles including large-sized home appliances, and the demolition of vacant houses.



Dismantling of vessels

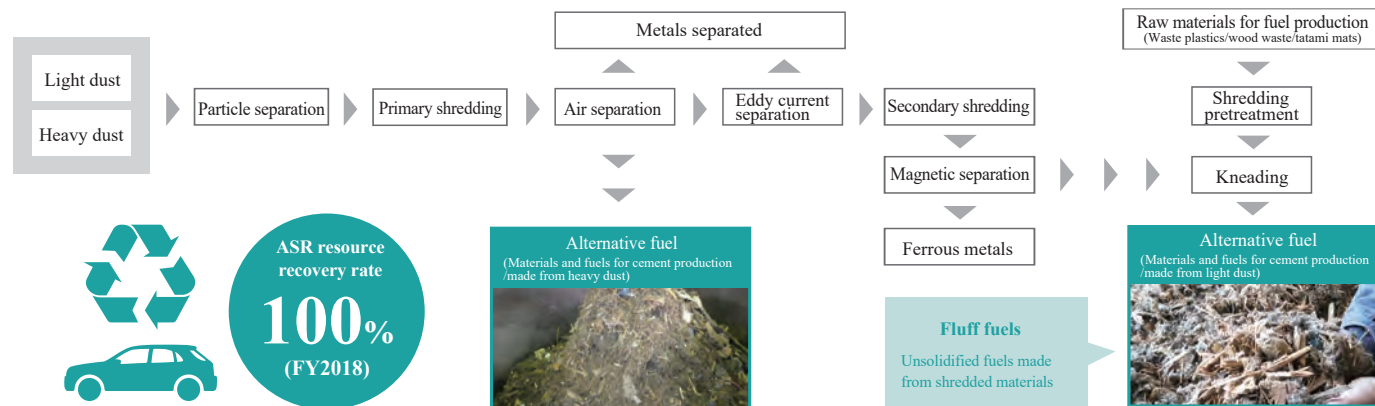


Before garage removal



After garage removal

ASR Recycling Facility: Flowchart



ASR resource recovery rate
100%
(FY2018)



Resource Circulation Business

Regional circular and ecological economy through recycling



“Syn Eco Plaza Azumino,” a recycling facility for regional circular and ecological economy through recycling

“Syn Eco Plaza Azumino,” a recycling facility for regional circular and ecological economy through recycling

In April 2019, SYN ECO Inc. opened “Syn Eco Plaza Azumino,” a recycling facility for regional circular and ecological economy through recycling. Under the theme of “solving social issues in the community,” it offers a wide range of services to address the problems facing local residents using recycling as an entry point.

Recycling of disposed home appliances

Syn Eco Plaza Azumino collects and recycles home appliances (TVs, air-conditioners, washing machines and refrigerators) disposed in Azumino City.

Opening of “Comfortable Life Support” help desk

Syn Eco Plaza Azumino operates the “Comfortable Life Support” help desk for Azumino citizens, responding to the problems they are facing, including disposal of disused articles.

Permanent installation of collection boxes of reusable materials

Syn Eco Plaza Azumino is engaged in the recycling of materials brought in by local residents through the “Mottainai BOX” installed in the compound where they can deposit reusable materials 24 hours a day.

“Comfortable Life Support”

to support the comfortable life of local residents



The company undertakes the “Comfortable Life Support” business in the areas around its offices. It offers a variety of services such as moving of furniture and home appliances, disposal of disused articles, removal/disposal of large-sized home appliances, arrangement of the belongings of the deceased by concerned specialists, demolition of vacant houses, and cleaning of houses, thereby contributing to solving social issues in the community such as assisting the elderly with waste disposal/house cleanup and addressing vacant house problems. The total number of cases attended by our Comfortable Life Support teams reached 844 in FY2018.

● RE100 Recycling Facility RE 100

In July 2019, Syn Eco Plaza Azumino installed a power generating facility with reused solar panels placed on the roof. Syn Eco Plaza Azumino obtains 100% of the electricity that it consumes in the facility from renewable sources, by combining its self-generated solar power with the electricity purchased from an electricity retailer under the “RE100 Menu.”



Aerial view of “Syn Eco Plaza Azumino”

Resource Circulation Business

Regulatory Sandbox Framework

Collecting resources through “Mottainai BOX”

SYN ECO Inc. has permanently installed a “Mottainai BOX” in the Chushin region of Nagano where people can leave reusable materials 24 hours a day. It recycles cardboard boxes, newspapers, wastepaper, used clothes, metals etc. It has collected a total of 5,214 tons of materials since its start.



Mottainai BOX

First project approved by the Ministry of the Environment under the “Regulatory Sandbox Framework” -Demonstrating a next-generation wide-area recycling system which uses IoT-

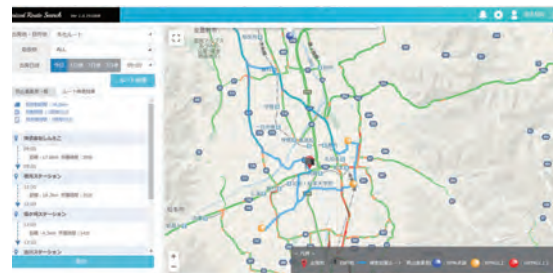
The company has been undertaking a demonstration project for a next-generation wide-area recycling system which uses IoT, aiming to enhance the utilization of “Mottainai BOX.” The project is approved by the Minister of the Environment.

While society demands the reduction of CO₂ emissions during waste incineration, a significant proportion of materials disposed by households, such as wastepaper, used clothes and metals have been landfilled or incinerated as waste while they could have been recycled. In addition, although municipalities should reduce their expenditure for waste management as the population decreases, they find it difficult to reduce related operation costs, labor costs, etc. This is because, in principle, each municipality is made responsible for the collection of household waste in its own jurisdiction, making it impossible for multiple municipalities to work together in order to benefit from economies of scale.

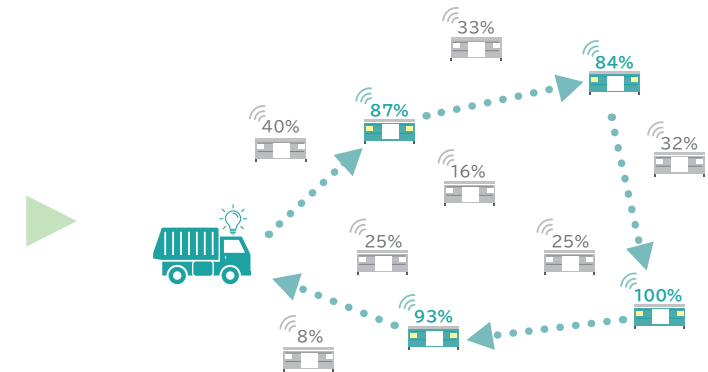
Aiming to solve such problems, the company obtained approval from the Ministry of the Environment, the first of this kind under the “Regulatory Sandbox Framework,” to install the “Mottainai BOX” in 13 municipalities across the Chushin region, Nagano. This is in addition to those that have already been installed in Matsumoto City and Azumino City. By using IoT to manage the boxes that are installed across a wide area, the company has efficiently collected materials and improved recycling rates.

***Regulatory Sandbox Framework:** This system is aimed at reviewing regulations that potentially pose difficulties for the commercialization of new technologies, such as IoT, blockchain, or robots, or the realization of new business models such as platform businesses or the sharing economy. Under the system, business operators who wish to promote new technologies or business models in society will submit an application and obtain approval from the competent Minister in charge before conducting a demonstration test. Then, the information and data collected through the demonstration test will be utilized to review the regulations. (Source: Prime Minister’s Office: Growth Strategy Portal Site)

Collection BOX management system using IoT



Managing collection boxes installed across a wide area with IoT



Identifying the optimal collection route

Resource collection system



Resource Circulation Business

Remanufacturing (re-production) Business

Material recycling from ASR to plastics

Automobile shredder residue (ASR), which remains at the end of the recycling process, is recycled as solid fuels and materials for cement production. However, a significant proportion of residue is incinerated and landfilled due to various problems including the treatment capacity of recipient companies. ASR contains a large volume of plastics. Recycling such plastics will have great social significance from the viewpoints of promoting ASR recycling as well as the material recycling of plastics.

PLA 2 PLA Inc. manufactures plastic granular pellets with a diameter of 5 mm by separating and processing recycled plastics from ASR. Recycled plastic pellets are currently used as recycled raw materials for new plastic products such as pallets, which are utilized in the distribution industry. The company has been engaged in research to expand the use of recycled plastics in cooperation with an automobile company, aiming to construct a resource circular model for vehicles (from one car to another car) in the future.

Furthermore, it is working on the development of “bioplastics” by mixing recycled plastic pellets with biomass such as wood powder. This work is jointly undertaken with ECONECOL Inc. which is engaged in the business to mix plastics using a high-filling high-speed melting machine, demonstrating the synergy that exists among group companies.



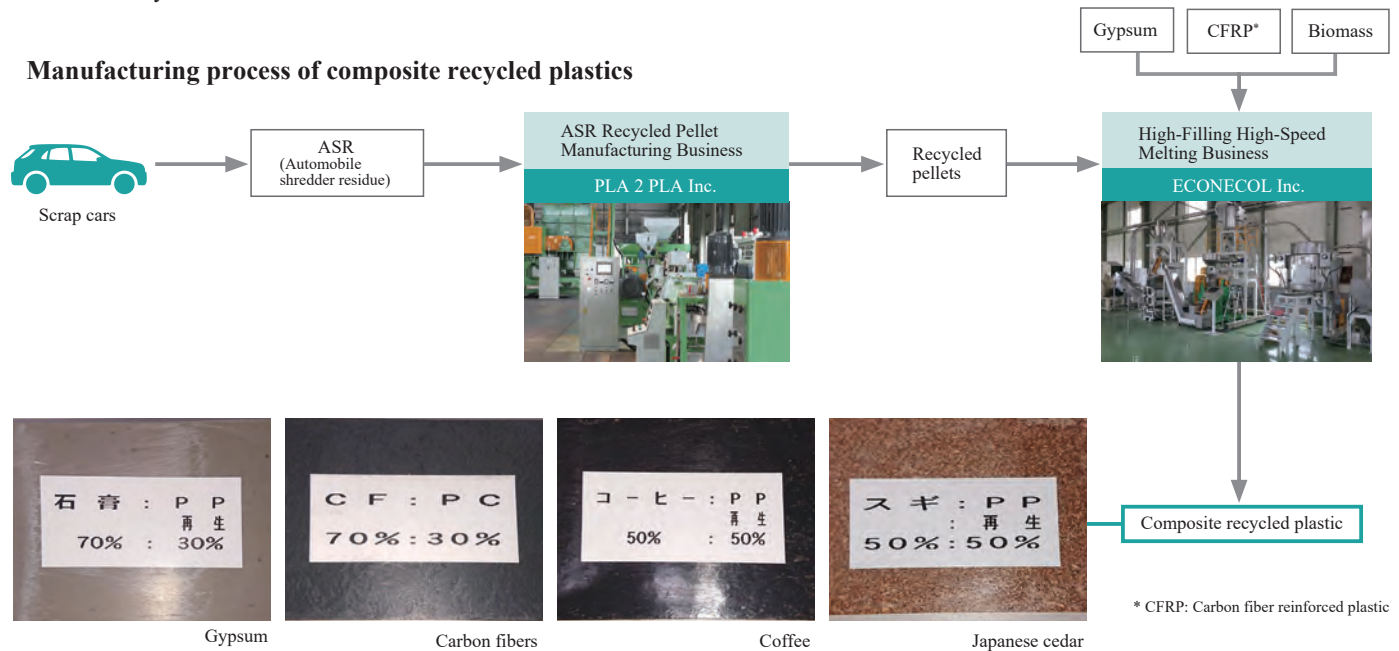
Development of new recycled materials by melting and fusing different materials together

It is still difficult to recycle plastics and carbon fibers, which are manufactured and disposed in massive quantities. Relevant recycling technologies have not been well developed and, even if they are recycled, their use has still been limited. ECONECOL Inc. has introduced a new technology to mix two different materials that an ordinary kneader finds difficult to mix such as recycled plastics and Japanese cedar, recycled plastics and carbon fibers, and recycled plastics and gypsum. It has launched the manufacture of mixtures with the properties of few thermal hysteresis which cause little damage, and has been collaborating with the manufacturers of basic materials and molding equipment to expand the use of recycled raw materials.

● Taking on challenges to manufacture biomass plastics

The high-filling high-speed melting machine that ECONECOL Inc. has introduced is capable of mixing plastics, etc. with biomass, such as wood chips, with a biomass content of 50% or more. It has been verified to have the technical characteristics suitable for the manufacturing of biomass plastics. The company is currently engaged in the development of recycled plastics by melting and fusing plastics with various materials. There is enormous potential for the production of composite recycled plastics.

Manufacturing process of composite recycled plastics



* CFRP: Carbon fiber reinforced plastic

Resource Circulation Business

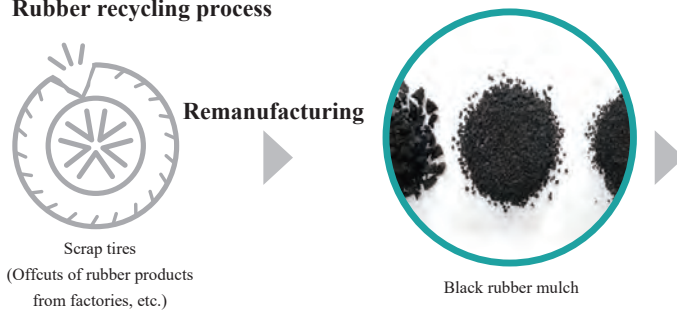
Manufacturing recycled materials from waste rubber

Taking over and advancing technologies

TOYO RUBBER CHIP Co., Ltd. founded in the Meiji era, has been involved in the rubber recycling business since 1942. It makes full use of the skills and knowledge it has gained over 80 years to manufacture products.

Regarding waste tires and offcuts of industrial rubber products as precious resources, it manufactures rubber powder from these materials. This recycled powder is widely used for elastic paving materials and artificial turf infills, as well as industrial products such as tires and brake linings. The company is determined to develop new materials by making use of the technologies that it has cultivated.

Rubber recycling process



Football field



Railroad crossing rubber panel



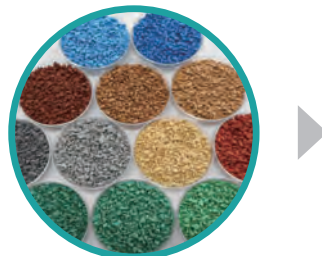
Shunsuke Park



Rubber panels for pedestrians

Synthetic rubber
(EPDM)

* EPDM: Ethylene Propylene Diene Rubber



Color rubber chips



Maebashi Children Park



Kids Pia Ashikaga



Day care center



Kids Park

Enhancing safety in the community and ensuring a “joyful” environment for children

Black rubber mulch, one of the recycled materials, is used for the cushioning of artificial turf for football fields, etc., ensuring the safety of people who enjoy sports. Furthermore, “Omni rubber RailGuard panels,” railroad crossing rubber panels, have great elasticity/durability along with corrosion resistance and a nonskid-surface, thereby helping to reduce the number of railroad crossing accidents.

Color rubber chips made from synthetic rubber are used for parks, pavements and the flooring of play equipment as high-quality cushioning with great elasticity. It is possible to create an original design, by combining the various colors. Furthermore, they help reduce the risks that involve fatal injuries caused by stumbling or falling.

Topics

“RE100” Rubber Chip Factory

On May 1, 2019, the factory of TOYO RUBBER CHIP Co., Ltd. became an “RE100 Factory” where 100% of the electricity consumed is generated from renewable sources. The electricity consumed by the factory is purchased from electricity retailers under the “RE100 Menu.” Moreover, with the use of the non-fossil fuel energy certificate with tracking information, the factory will get prioritized to receive electricity from the Komiya Solar Power Plant owned by SYN ECO Inc., one of our group companies. As a result, the company has achieved CO₂ emission reductions in the manufacturing process, making it possible to produce zero emission products.

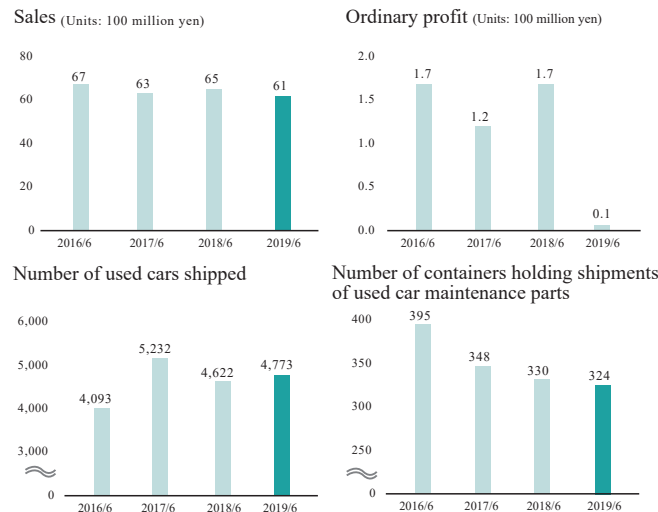
Used-cars-related Business Crossing borders to places where we are needed

3WM Co., Ltd. exports used cars, trucks, heavy machinery and reusable parts, such as engines, that have been removed from scrap cars from Japan.

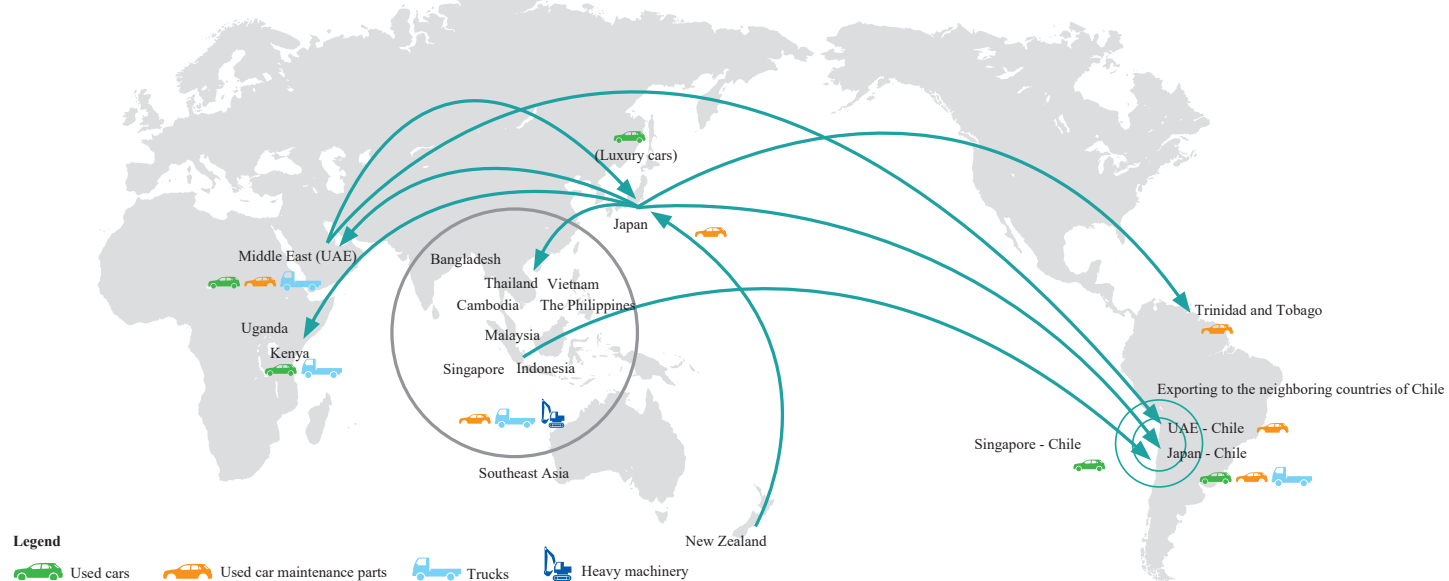
Japanese cars are very popular overseas because of their durability. However, in recent years, hybrid cars have been increasing their share in Japan. As a result, it has become difficult to cope with demand from the Middle East, Latin America and Africa where gasoline-fueled and diesel-fueled cars are in high demand.

Cognizant of this, the company is currently engaged in not only exporting the products from Japan but also re-exporting to third countries the reusable parts, such as engines, of cars that were originally exported from Japan as used cars and later scrapped overseas. As part of this endeavor, it started the transactions of maintenance parts from used cars originating from New Zealand in FY2019, in addition to the UAE. The company has also been expanding the number of countries where it stocks used cars in addition to Japan.

It promotes reuse by circulating resources and delivering reusable materials to the people who need them.



International transactions of used cars and maintenance parts



Volume of exports in 2018

- Used car maintenance parts
Number of containers **324**
(40 feet long)
- Used cars
Number of cars shipped **4,773**

* Total number of cars, trucks, and heavy machinery shipped from Japan

Global Resource Circulation Business

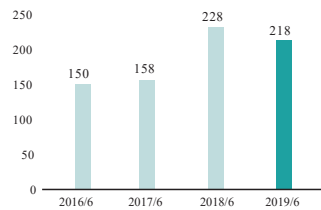
Involvement in the construction of a global recycling system

Amid mounting concerns about the depletion of mineral resources resulting from rapid global economic growth, the global utilization and circulation of various resources has become a critical issue in the global economy. Another key issue is the change in material flow in a global recycling system as a result of the revision to environmental regulations in China.

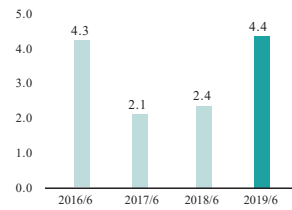
Foreign trade department of ECONECOL Inc. is globally engaged in the transactions of recycled raw materials and resources produced by the company's different business segments within the framework of the Global Resource Circulation Business, contributing to establishing a recycling system across the world. It is involved in the international transactions of palm kernel shells (PKS) and wood pellets, which are renewable energy sources, and a variety of other resources along with transactions of metal scrap both inside and outside of Japan, thereby creating the optimal level of resource circulation across the world.



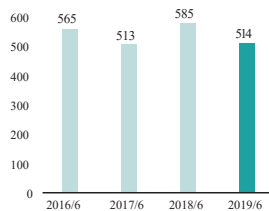
Sales (Units: 100 million yen)



Ordinary profit (Units: 100 million yen)



Handling volume (Units: 1,000 tons)



Three Business Components under Global Resource Circulation Business

Ferrous Scrap Business

We sell ferrous scrap that is collected at ports across Japan to steel manufacturers (blast/electric furnaces) in Japan and abroad after ensuring its quality based on the needs of customers. We transport materials not only using bulk carriers but also using containers, focusing on sales targeting small-scale customers and customers in remote areas.

Nonferrous Metal Scrap Business

At our resource recovery plant, after shredding and screening nonferrous metals contained in the various scrap, we separate nonferrous scrap that is of a quality that meets the needs of major nonferrous metal smelters and secondary alloy manufacturers, both inside and outside of Japan. While we primarily supply companies in South Korea, China, and Southeast Asia, we are currently pursuing the development of new markets in Southwest Asia (India, Pakistan, etc.)

Biomass Business

We have been engaged in the trading of palm kernel shells (PKS), centering on Southeast Asia since 2017. In July 2019, we started their export to Japan as well.

PKS has been receiving attention as a renewable energy source and demand is expected to increase in Japan and beyond. In light of this, we established a stockyard in Indonesia in August 2019, following the yard in Malaysia. We plan to increase the number of items that we trade, not only PKS but also wood pellets, new fuels, and others, as well as expand the area of container yards.



PKS



Wood pellets



Topics

Recycling of the retired dedicated aircrafts of Japanese government

ECONECOL Inc. concluded the purchase and sale agreement of two retired dedicated aircrafts of Japanese government (B747-400) after winning a tender invited by the Air Self-Defense Force in May 2019. They were handed over at Anchorage Airport in Alaska, USA, at the end of June in the same year.

The concerned aircraft did not have an airworthiness certificate (equivalent to an inspection certificate for vehicles). Hence, they were procured from the Air Self-Defense Force as junk aircraft, not used aircraft, in order to obtain maintenance parts. They were subsequently sold to a buyer in the U.S.

They were the first dedicated Japanese government aircraft, beloved by the people as the flagship of Japan over the years. Cognizant of this, the company has examined the “best way to sell” the aircraft and, subsequently, reused them by giving them a new “life” instead of merely selling them as they were.

Even in the West, there are two different types of companies involved in recycling of aircrafts: one that trades used aircraft and another that recycles parts such as disused frames. Thus, we are convinced that ECONECOL Inc. will be one of the very few companies that can undertake the comprehensive assessment and purchase of used aircraft without the involvement of any other companies. Taking advantage of this environment as the foundation for developing our services, Econecol Inc. will be proactively engaged in the reuse business.



International transactions of resources

Foreign trade department of ECONECOL Inc. has established trading bases worldwide, centering on Asia, with the aim of promoting the international transactions of resources.

Topics

Importing from Europe, targeting smelters (Netherlands)

Since the Chinese government tightened regulations concerning waste imports, scrap that contains precious metals, such as electronic substrates, have become oversupplied across the world including Europe. Foreign trade department of ECONECOL Inc. imports this scrap. After accurately separating and condensing any precious metals such as gold, silver, and platinum, it sells them to major smelters in Japan. The company takes the initiative to procure scrap that contains precious metals from resource recycling companies worldwide, and supports smelting companies in Japan to secure precious resources. It contributes to promoting global resource circulation and reducing environmental load. In addition, it is expected that the company will play a role in controlling the environmental pollution caused by wastes that are exported to developing countries and inappropriately treated.



Legend

- Ferrous metals
- Nonferrous metals
- Plastics
- Wastepaper
- Biomass fuels

Sites

- ① Eeonecol Ho Chi Minh Representative Office
- ② Eeonecol Europe Representative Office (UK) (Established on October 1, 2019)
- ③ Mine Biomass Synergies MALAYSIA (Malaysia)
- ④ Mine Biomass Synergies INDONESIA (Indonesia)
- ⑤ Mine Biomass Synergies SINGAPORE (Singapore)

Topics

Establishment of the PKS Indonesia Stockyard (Indonesia) * Established in August 2019

PKS can have different properties, depending on the region where it is produced. It has become possible to meet the demands for PKS produced in both Malaysia and Indonesia after the yard was established. Furthermore, the increase in the number of bases has led to an increase in collection volume, contributing to a more stable supply of fuels. Without delegating responsibility to the local subsidiaries, the company has undertaken thorough quality control by directly managing the yard. Making use of the material transportation know-how that the company has cultivated, it can thoroughly respond to various and detailed requests.



Indonesia stockyard

Society **Diversity**

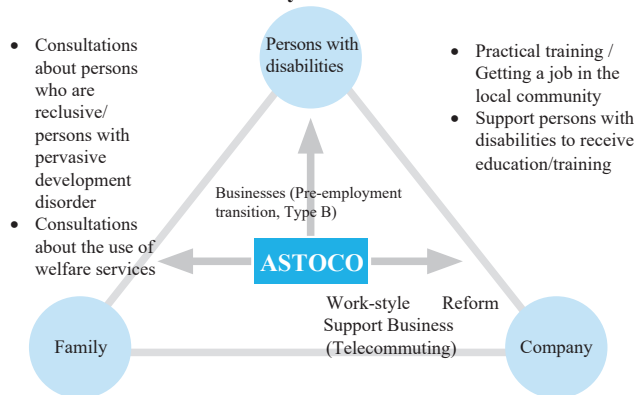
Welfare Service Business for Persons with Disabilities

The ENVIPRO Group support persons with disabilities to enhance their ability/knowledge/skills so that they will become self-supporting in society and be able to find a job in which they can fully demonstrate their ability and knowledge.

ASTOCO Inc. conducts training in the recycling factories of a group company which is situated in the same compounds as its offices in Matsumoto City and Azumino City. Training offers an environment similar to the actual workplace so that persons with disabilities can easily envision what their future workplace will be like, and concentrate on the training and tasks without any sense of anxiety.

ASTOCO also assists those companies that have recruited persons with disabilities in creating a conducive work environment where they can continue working. Furthermore, in cooperation with specialists in related fields, it supports persons who have lost interest in work despite their employability or who are reclusive. This endeavor is aimed at encouraging these people to integrate themselves into society as well as to motivate them to work.

Activities to support persons with disabilities to become self-reliant in the local community



● **Pre-employment Transition Support Business (Bright)**

This business offers a day care service program for persons with disabilities who are looking for a job. The program provides them with vocational training and also assists them in finding a job. It targets people who have the desire to find a job and are aged between 18 and 64 years old.



Attending a lecture

Number of people registered (as of the end of June 2019)



People who found employment (total)
(July 2018 – end of June 2019)



● **Type B Continuous Employment Support Business (Ecommit)**



This business runs a welfare service program for persons with disabilities or intractable diseases who have difficulties working under a normal employment contract. The program trains them on knowledge/skills, and also offers light work as practical training. It pays wages. One feature of the program is to provide an opportunity to work according to their abilities or physical conditions regardless of their age.

● **Telecommuting**

This business aims to solve the problems that companies face, such as how to properly respond to the needs of employees with disabilities. It supports the creation of a work environment as well as tasks that are suitable for person with disabilities.

ASTOCO Inc. offices ■ Bright ■ Ecommit



Creation of programs and a work environment that help employees to continue working

In conjunction with the declining birthrate and aging population, labor shortages have become an emerging issue in Japan. To sustain our businesses, we must create a work environment where all employees can fully demonstrate their abilities and where their different needs are accommodated to allow them to continue working. Using this principle, we have been promoting programs and mechanisms to create a conducive work environment.



Proportion of employees who returned to the work after parental leave

100%

(FY2018)

Interview Hiroko Tateno, in charge of administration, Bright Innovation Co., Ltd.



Q1. What did you do before you started working with us?

I was taking care of my children and working as a volunteer. At the same time, I was looking for a job using the keywords “resolution of social issues” and “conducive work environment.” Then, I came across Bright Innovation.

Q2. What is your job now?

I am in charge of the overall administration of the company. The company entrusts ENVIPRO with accounting and personnel management. I am in charge of other day-to-day administration. I am occasionally involved in tasks related to commissioned projects along with general administration.

Q3. On what occasions do you feel that your office has a conducive work environment?

My child was once hospitalized for 10 days. During this period, I was allowed to leave the office early every day not to miss patient visiting hours. Because it is not completely curable, I was wondering “if I should resign.” However, the company allows me to adjust my working hours or to work at home whenever the need arises.

There are also some employees who work at home when their children are sick and unable to go to school/day care center, and some permanent employees have been working shorter working hours since they were recruited. I think the company has a very conducive work environment. The company has not only instituted programs but also successfully created an environment in which employees can take advantage without any hesitation.

Supporting persons with disabilities to find a job and continue working

Concerning the employment of persons with disabilities, employees, who have disabilities, and their employers tend to have different perceptions concerning labor conditions, work contents, etc., which often results in their resignation. If employees resign, it is also a loss to the company. Therefore, this is an issue for both persons with disabilities and their employers.

Our group companies collaborate with each other to create mechanisms and an environment where persons with disabilities can continue working.



Number of employees with disabilities across the group

18

(as of June 1, 2019)

Interview Takashi Ota, SYN ECO Inc. (left) Miho Yoshinami, ASTOCO Inc. (right)



Q1. What support do you provide on a daily basis?

(SYN ECO) The staff in charge of recruiting persons with disabilities make the rounds of the sites where they are working on a daily basis and have regular discussions with them. By physically meeting with them every day, staff can recognize any changes in their physical or psychological conditions immediately. Their working hours and days are decided, taking their physical conditions and personal reasons, such as visit to hospital, into consideration.

(ASTOCO) We have regular discussions with persons with disabilities and their sections. In addition, if we observe any change in the way they greet us when they come to or leave the office, we talk to them, or sometimes discuss with the SYN ECO staff in charge.

Q2. Could you elaborate on how the two companies are working together?

(ASTOCO) We share information with SYN ECO at the job interview or practical training about what they are good at and not good at, and also what considerations are required to work with them. Especially, we inform them about any issues that they cannot express well verbally, and the gestures or signals they use to communicate these issues.

(SYN ECO) We always communicate with them based on information we have received from ASTOCO. Furthermore, when we encounter any problems, working with them, we discuss with ASTOCO to address such problems together. I feel convinced that a good working environment will be created if companies and the people supporting persons with disabilities closely align their viewpoints.

Society **Commitment of our staff**

Activities to enhance safety in the workplace

Serious accidents at production sites could be fatal and should be prevented at any cost. Our group has multiple production sites. Each subsidiary company and site implement their own awareness-raising and labor safety activities reflecting their own conditions and environment.

Interview

Shinya Kobayashi, Nonferrous Metal Section Head, Production Department, ECONECOL Inc.



Q1. What KYT*1 does the Nonferrous Metal Section implement?

We organize a meeting every morning. Prior to the meeting, either that morning or the previous day before going home, every worker lists five risks on a KY*2 sheet about the work which they plan to do that day: what are the potential risks and what are the measures to take. In the meeting, one of the team members presents what they listed on the sheet to the other members, taking turns each day. After that, the sheets of all the team members are collected and submitted to the team leader or the section head for confirmation and feedback. If it's deemed necessary, we hold a discussion.

If there is any incident we wish to inform the whole company about, we will announce it at the safety committee which is held every month.

*1. KYT: Risk Prediction Training

*2. KY: Risk Prediction

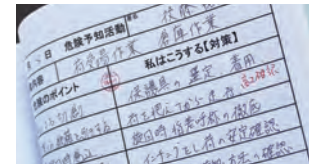
Q2. Have you observed any changes since you started KYT every day?

We paid close attention to industrial safety and instructed our workers to do the same. Nevertheless, there were accidents. By holding KYT every day, we successfully enhance workers' awareness that "safety comes first."

In the past, we also analyzed the causes of accidents whenever they occurred using the Why-Why Analysis method. Analyses revealed that workers had different sensitivities to and perceptions about risks and, accordingly, what they considered to be risks or their measures against risks varied from one worker to another. Now each worker first assesses the risks individually and then shares them with the other members of their team or the whole section. By listening to them, the other members become aware of the risks that they may have overlooked.

Q3. By continuously doing this exercise, what do you want the workplace to be like in the future?

The current KYT is focusing on KY in relation to the key operations out of a series of operations. The degree or significance of the risks that are predicted in everyday KY varies. We will promote activities that enhance workers' sensitivity to risks, leading them to conduct KY voluntarily.



Implementation of employee attitude survey

Our group implements an annual employee attitude survey across group companies simultaneously. The objective of the survey is to create a safe and comfortable office environment where employees can be actively engaged in their work with a sense of fulfillment under the corporate philosophy of "share the profit and joy with the people you live with."

The survey results are compiled by department: Production, Sales, and Administration. Then, they are shared with the management including the presidents of the companies. We strive to enhance the commitment of employees by developing and implementing improvement plans, and continuously examining and addressing issues.



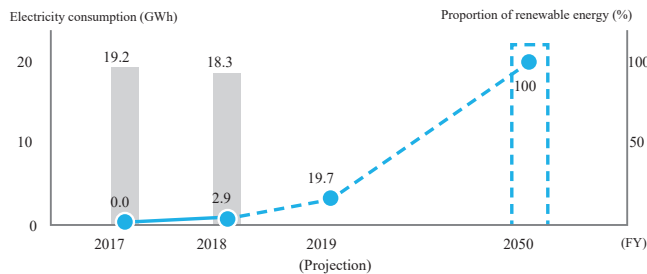
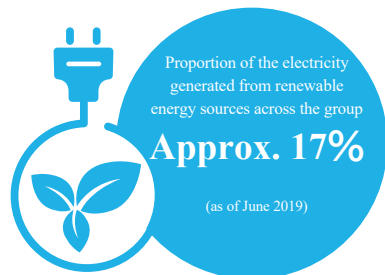
Society Renewable energy and CO₂ emissions reduction

Promotion of renewable energy towards “RE100”

We, the ENVIPRO Group, have set a goal to source 100% renewable electricity for all its operations by 2050 and joined “RE100” in July 2018. We are the first recycling company to join this initiative in the World.

Our group facility and factory, “Syn Eco Plaza Azumino” and the “factory of TOYO RUBBER CHIP Co., Ltd.,” have become an “RE100 Factory” where 100% of the electricity consumed is generated from renewable energy sources. Furthermore, renewable energy represents 17% of the electricity consumed across the group (as of June 2019). We are steadily implementing projects to increase the share of renewable energy in order to achieve the 2050 goal.

* RE100: a global initiative bringing together companies committed to 100% renewable energy for the electricity consumed in their businesses.



Promotion of decarbonization through consulting services

Bright Innovation Co., Ltd., one of our group companies, offers consulting services to companies on their environmental management/decarbonization strategies. It provides services to satisfy the needs of customers, starting from an upstream process, such as the formulation/review of an environmental management plan, to a downstream process, such as the establishment of an environmental management system, the development of a greenhouse gas emissions reduction plan and the introduction of renewable energy as a solution.

Topics

“Syn Eco Plaza Azumino,” a recycling facility for regional circular and ecological economy through recycling

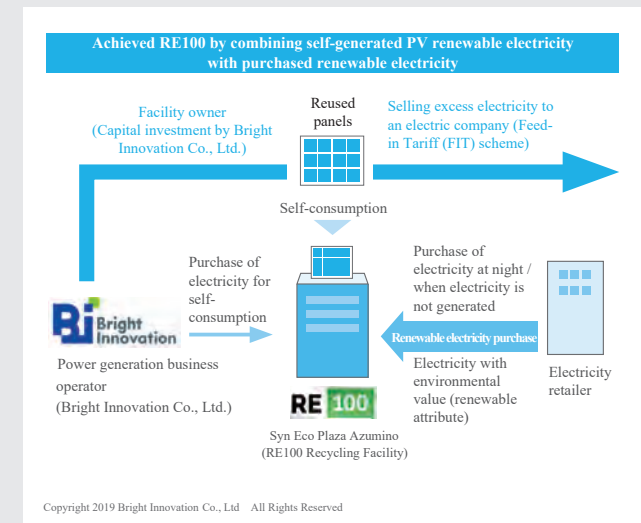
“Syn Eco Plaza Azumino” (Azumino City, Nagano), a recycling facility for regional circular and ecological economy through recycling, is operated by SYN ECO Inc., our group company. It has installed a power generating facility with reused solar panels placed on the roof.

The facility purchases electricity from electricity retailers under the RE100 menu, and has successfully become an “RE100 Factory.” In the future, in addition to the electricity purchased, it can use self-generated solar photovoltaic power (PV).

As the secretariat of our group for RE100 promotion, Bright Innovation Co., Ltd. has comprehensively undertaken multiple tasks, ranging from the development of roadmaps to the introduction. Applying the know-how that it gained through this process, it will offer services to companies that are planning to reduce CO₂ emissions, or to adopt renewable energy.



For example, a Carbon Disclosure Project (CDP) questionnaire requests companies to disclose climate change-related information: identification and assessment of risks and opportunities in relation to climate change, the management system, medium-to-long term targets for CO₂ emissions reductions, etc. Bright Innovation Co., Ltd. is engaged in the performance evaluation of companies as the scoring partner of CDP. Based on its vast experience in consulting services, it supports companies with their information disclosure and decarbonization, including how to fill out survey questionnaires to improve their rating.



Corporate governance

We believe that corporate governance is an important business foundation as well as a precondition to strongly promoting goal achievements. To promptly respond to changes in the economic environment, we strive to implement both prompt decision-making along with efficient and transparent management, and to continuously improve our corporate value. To this end, we will keep evolving to verify and operate the management and internal control systems, and enhance their effectiveness.

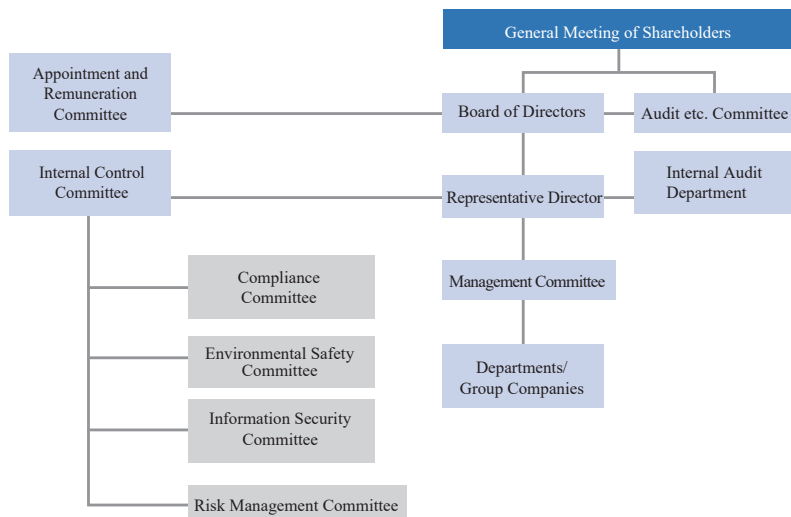
Sustainability Committee

In FY2018, we re-verified relations between our business activities and social issues, and, subsequently, developed a “Sustainability Strategy” as a strategy to realize the sustainable development of society and our group concurrently. At the same time, we started the operation of a sustainability committee on an exploratory basis in order to flexibly and actively discuss and examine the progress and future direction of the strategy from a long-term point of view. The sustainability committee is composed of the full-time directors and some executive officers of ENVIPRO HOLDINGS Inc. and is convened once a month. Based on the strategy, the committee discusses and examines the potential of new businesses, the establishment of business/growth foundation and synergies across the group. Once opinions about the direction and specific plans are consolidated, they are deliberated at the meeting of the Board of Directors, etc.

Introduction of segments and a scheme to make officers responsible for respective group companies

In the past, our business report described all activities under the singular segment of the “Resource Recycling Business.” However, in order to develop our implementation strategies by segment and to facilitate prompt management decision-making in response to drastically changing economic environment, we have introduced multiple segments since June 2019: “Resource Circulation Business,” “Global Resource Circulation Business,” and “Used-cars-related Business”; and “Environmental Management Consulting Business” and “Welfare Service Business for Persons with Disabilities” under other businesses (refer to page 9). Simultaneously, we introduced a new scheme whereby the officers of ENVIPRO HOLDINGS Inc. are made responsible for their respective consolidated subsidiaries in order to enhance the collaboration between ENVIPRO and subsidiaries, thereby strengthening the system to promote our businesses. In the future, we will strive to establish the foundations that allow us to grow continuously. To this end, we will promote the devolution of power, prompt decision-making, and transparent management with good governance.

Corporate governance system



● Internal Control Committee

The Committee is composed of four subcommittees (Compliance, Environmental Safety, Information Security, and Risk Management). It identifies risks, develops measures, and establishes and operates an internal control system across the group including the organization of awareness-raising activities.

● Management Committee

The Committee makes decisions on important matters in relation to the execution of our businesses and the timely disclosure of information.

● Appointment and Remuneration Committee

The Committee is composed of a total of five members: one representative director, three outside board members who are independent officers, and one advisor. It holds preliminary deliberations on any nomination of candidacy for director (except for members of the Audit etc. Committee), remunerations, etc. as an advisory body to the Board of Directors.

Nurturing corporate culture

We believe that firmly establishing business objectives and values as corporate culture, and making everyday business activities consistent with these objectives and values creates the most effective form of governance. They are also essential activities for sustainable enhancement of corporate value. We distribute a management plan to our employees that clearly describes the corporate philosophy, values, and code of conduct, aiming at nurturing corporate culture. Adopting the management plan in business activities, we will spread the corporate philosophy across our organizations and nurture a corporate culture, thereby establishing the foundations that enable long-term sustainable growth.

Human resource development

Self-reliant and well-disciplined organization, the type of person we want to be

Based on our corporate philosophy, we aim to create a self-reliant organization that allows every employee to be the manager of their own work. Although seemingly contradictory, the organization should also be well-disciplined. To this end, we have defined the “type of person we want to be” as one of the basic concepts that should be applied to human resource development. With our aim to develop human resources based on this concept, we have been working to reflect the concept during the recruitment process, internal training, employee evaluations, employee positioning, etc.

Type of person we want to be

1. Value

Person who feels empathy for the corporate philosophy (values), and is sincere and not arrogant

2. Proactive

Person who can think independently, judge on their own volition, and take action responsibly
 Person who can be proactively engaged in enhancing the expertise in their work

3. Change

Person who can willingly put aside their past experiences and values with the attitude of positively embracing change

4. Speed

Person who can promptly decide and act

5. Challenge

Person who can take up challenges, confronting difficult situations and new things.

6. Teamwork

Person who can produce a greater output by helping others, getting the best out of others, and lending a hand to others

7. Diversity

Person who can fully demonstrate their own uniqueness, while accepting the characters and ideas of different people

Recruitment of the first batch of new graduates (Scheduled to join in April 2021)

We have been primarily undertaking mid-career employment. However, we have decided to recruit not only career people but also new graduates because we consider it important to recruit a diverse range of people to enhance corporate value in the medium- and long-term. By recruiting new graduates, we will be able to pass on the corporate culture and invigorate the organization in addition to optimizing the age composition of our group. We believe that to train new employees to become leaders or key personnel in the future will contribute the most to creating the business foundations that enable us to grow in the medium- and long-term.

ENVIPRO business school

We operate the “ENVIPRO Business School” as a business school of the group. It’s aimed at improving the skills and expertise that employees need to carry out their work.

The school offers original training programs every year, targeting various personnel in senior management positions and job categories. In FY2018, it ran three courses, namely “Next-Generation Entrepreneurs,” “Managers,” and “Sales Representatives.” The “Next-Generation Entrepreneurs” and “Managers” courses offered a total of 9 classes and the “Sales Representatives” course a total of 4 classes. In total, 30 employees attended.

Training topics included the ability to persuade/express, marketing philosophy, finance/management accounting, and human resource development which corresponded to the requirements of respective job categories. Especially, in the “Next-Generation Entrepreneurs” course, lecturers who were specialized in their respective fields conducted training which reflected actual work, such as the development of next year’s business plan based on financial statements and the management policy of the company.

The training was attended by employees from different companies across our group, which helps to nurture a sense of togetherness and to promote collaboration throughout the group.

Interview

Shigeto Komatsu, Representative Director/President, SYN ECO Inc.

Attending the business school

I attended the “Managers” course in FY2016 and the “Next-Generation Entrepreneurs” course in FY2018.

I remember I felt a great sense of commitment and at the same time felt extremely tense because I was taking part in the training as the representative of my company with many other employees from different companies, even though we all belonged to the same group. I have developed good relationships with the trainees I met on the training, which has helped me a lot in my work. During the training I gained knowledge and a way of thinking that cannot be acquired in day-to-day work. It gave me an opportunity to revisit my attitude to work and to life.



Attending a lecture

Business foundation / Growth foundation **Growth / Development strategy**

Endorsement of the TCFD recommendations

Our group announced its support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations in May 2019.



The TCFD is a task force established under the Financial Stability Board (FSB) based on a request from the Ministers of Finance and the Governors of Central Banks of the G20. It is a private sector-led initiative, associated with the disclosure of climate-related financial information. It has announced recommendations (the TCFD recommendations) that are aimed at companies to understand and disclose their financial impacts of climate-related risks and opportunities.

According to the TCFD recommendations, we will analyze the risks and opportunities of climate change on our businesses to integrate them into our business strategies and promote information disclosure on governance, strategy, risk management, and metrics and targets.

Establishment of a laboratory

To promote resource circulation under the circular economy, we need to have advanced technologies to recycle waste and materials. The development of core technologies through the assessment of recycling technologies, analysis of recycled raw materials, accumulation of data, and acquisition of technical know-how is essential for the sustainable growth of our group in the future. Cognizant of this, the research department of ECONECOL Inc. was reorganized as an organization directly under ENVIPRO HOLDINGS last year. It now leads research and development as a laboratory.

Enhancement of work efficiency by introducing RPA*

In recent years, work-style reform programs have been promoted and the enhancement of work efficiency has been given a high priority. If simple tasks are automated, it will become possible for workers to be engaged in tasks that can be only done by humans, using the time saved.

Our group has launched the operation of RPA in a survey of new business partners. RPA is used to collect information needed to decide if a trade connection should be established with a concerned company. As a result, the workload involved in collecting information for a company survey has been reduced.

* RPA: Robotic Process Automation
A technology to automate simple tasks and routine tasks.

Interview Toshihiro Koyama, Director, Laboratory, ENVIPRO HOLDINGS Inc.



Q2. What are the challenges and prospects for the laboratory in the future?

We have seconded our researcher to the National Institute for Environmental Studies for joint research to develop methods to melt the metals contained in riddling ash, aiming to grow this field as a new core business of our group. It is becoming clear that the metal elements themselves determine the types of acid suitable to melt them and the treatment required after melting. After the secondment period is completed, we will further work on the commercialization of the research outcome in order to develop this into the next key business of our company.

Q1. Are there any research themes that are typical for ENVIPRO?

We are currently focusing on launching a business under VOLTA Inc. which will recover valuable metals, such as cobalt and nickel, from lithium-ion rechargeable batteries collected from mobile phones and automobiles. We are jointly engaged with VOLTA Inc. the establishment of efficient plant operating conditions to concentrate cobalt, through the introduction of facilities in a metal recovery plant, planning trial runs and assessments of prototypes. In addition, we have been continuously engaged in the analysis of materials such as gold and silver sediment sludge assisting ECONECOL Inc.



Business foundation / Growth foundation

Challenge to contribute to create a sustainable society

In FY2018, we, the ENVIPRO Group, re-verified relations between our business activities and social issues, and, subsequently, developed a “Sustainability Strategy” as a growth strategy to realize the sustainable development of society and our group concurrently.

Until we were listed on the Second Section of the Tokyo Stock Exchange in September 2013, we prioritized the establishment of our business foundations. After being listed, we planted a variety of seeds for future growth with the objective of promoting the diversification of our businesses. Later, we reviewed the business areas we had expanded, and decided which businesses to primarily apply our resources.

Based on this decision, we will further promote the new businesses that we have already launched and accelerate investments in new growth fields. We will engage ourselves in the development of a sustainable society as a company which is relied upon by our stakeholders.

Business strategy (expansion of existing businesses, strengthening of foundations, erecting new pillars)

We will strengthen our growth foundation through developing human resources, improving corporate governance, brand development and others, while enhancing our financial stability by continuously generating profits through expanding existing businesses, technological innovation, improving productivity, etc. Simultaneously, we will erect new pillars of growth by investing in growth fields and collaborating with other companies, thereby enhancing our corporate value.

Profit distribution

To realize the above-mentioned policies, we will principally distribute profits according to the following proportions: 30% for investment in growth fields, 10% for research and development, 20-30% for dividends to return to shareholders, 30-40% for internal reserves.

Profit distribution	
Investment in growth fields	30%
Research and development	10%
Return to shareholders	20~30%
Internal reserves	30~40%

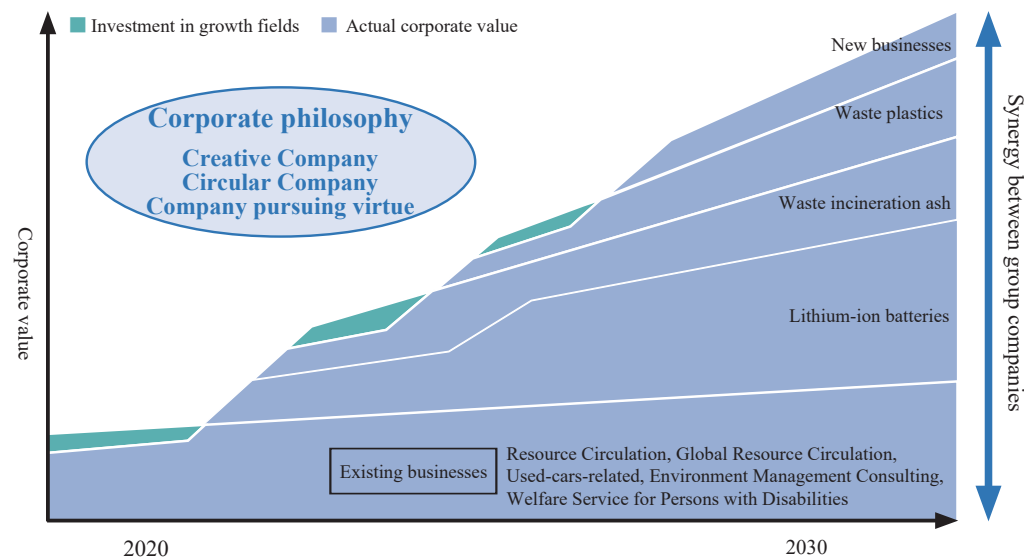
Synergy between group companies

Making the best use of the human resources, assets, funds, technologies, and information that the group owns, we will support the development of the whole group, thereby maximizing the synergy between our group companies, and expanding and strengthening new growth foundations across the group.

Stakeholders

We will strive to win the trust of our stakeholders through our business activities as well as our communication with them. To this end, we will regard any concerns expressed by the various stakeholders (customers, shareholders, business partners, employees, local communities, administrative offices/industry associations) as challenges that will lead us to strengthen the business foundation of our group necessary to promote business activities and sustainable growth.

Enhancing corporate value by expanding businesses



Until a business is stabilized, the increase in corporate value will slow down because it cannot match the initial investment. Green areas indicate a negative balance caused by this condition.

References **Materials balance**

INPUT

Raw materials

Resources processed 258,400 tons



Metal scrap	170,200 tons	Wood scrap	3,500 tons
Mixed waste	45,300 tons	Wastepaper	8,600 tons
Waste plastics	2,300 tons	Used clothes	1,400 tons
Scrap cars	9,200 tons	Waste batteries	100 tons
Electronic waste	5,900 tons		
Waste rubber chips	11,900 tons		

Resources circulated 404,900 tons



Metal scrap	350,200 tons	Wastepaper	9,400 tons
Waste plastics	300 tons	Used clothes	400 tons
Scrap cars	5,200 tons	Wood pellets/PKS	39,300 tons

Energy

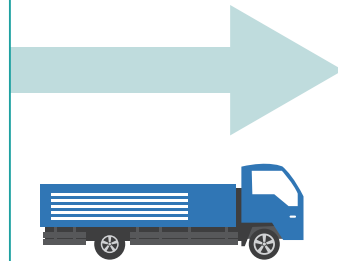
Petroleum-based fuels 58.9TJ Electricity 18.3GWh Water 30,800 m3

Resource recovery rate

97.6%

CO₂ emissions

13,000 tons



OUTPUT

Products

Recycled raw materials 94,400 tons



Ferrous metals	39,600 tons	Wood chips	800 tons
Nonferrous metals	9,900 tons	Raw materials for paper	8,400 tons
Raw materials for plastics	1,200 tons	Raw materials from used clothes	900 tons
Raw materials for fuels	29,900 tons	Others	3,700 tons

Recycled raw materials and used products for international trading 504,300 tons

Ferrous metals	437,700 tons	Raw materials for fuel	39,300 tons
Nonferrous metals	10,900 tons	Raw materials for paper	9,600 tons
Raw materials for plastics	1,500 tons	Used cars/maintenance parts	5,200 tons



Final products 12,300 tons

Rubber chip-based products 12,300 tons

* Resource recovery rate = Products used for raw materials / (products used for raw materials + simple incineration + landfilling) x 100



Contact for inquiries

ENVIPRO Holdings Inc.

Corporate Planning Department
87-1 Tanaka-cho, Fujinomiya-shi, Shizuoka,
418 - 0075, JAPAN
TEL: +81-544-21-3161
URL: <https://www.envipro.jp/en/>