

Medium-Term Management Plan (Sustainability Strategy)

Envipro Holdings Inc.
(TSE Code : 5698)

August 23, 2022

Table of contents

1 . Medium-Term Management Plan

2 . Reference Data

Corporate Philosophy

「Creative Company」 「Circular Company」 「Company Pursuing Virtue」

The key values of the Envipro group, and its corporate DNA
(no timeline)

Mission

Contribute to create a sustainable society

The Envipro group's significance in the world, and its purpose and aspirations on a defined timeline
(the 30 years until 2050)

Strategy Concept

To take on the challenge of solving problems to realize a decarbonized society, a circular economy society, and a distributed society as business opportunities.

Business Concept

Realization of specific cases to achieve a circular economy

Organizational Image

A disciplined group of autonomous individuals with emergent abilities

Long-Term Trends

GX

Green Transformation

DX

Digital Transformation

Medium- and Short-Term Trends

Demand for the establishment of a green value chain

Growing international competition for resources

Surfacing social issues related to waste plastics

Data utilization in non-IT businesses

Increase in utilization of IoT, AI, Robotics

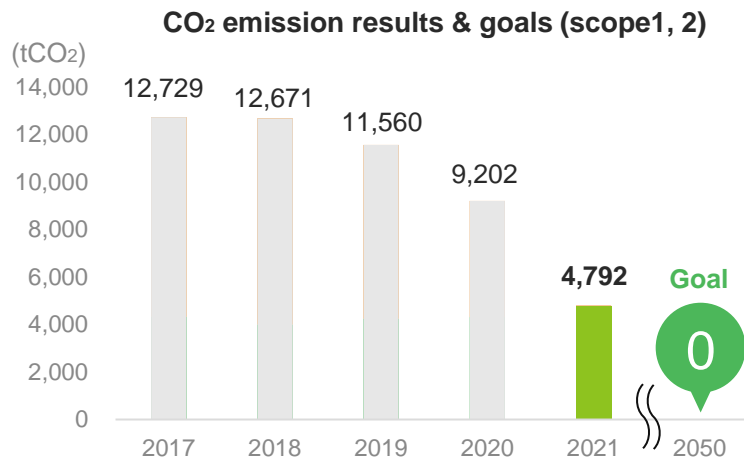
Increasing competition for human resources

Identifying Materiality

- Increasing demand for green materials in the supply chain
 - ① Increasing demand for ferrous scrap due to building of additional electric furnaces
 - ② Increasing demand for nonferrous metals and minor metals due to electrification
 - ③ Promotion of advanced resource circulation of waste plastics
- Reducing labor required in the production process, promotion of data utilization in business activities
- Investment in human resources to promote business activities

Transformation into a manufacturer of materials obtained from aboveground resources through low-carbon processes (QCDC)

To achieve levels of Q (quality), C (cost), and D (delivery time) that are comparable to a first-class manufacturing company. Moreover, to create a manufacturing process featuring an added factor, C (carbon neutrality).



To date, the percentage of energy from renewable sources has reached **97%**

→ CO₂ emissions are reduced by **62%** (2017-2021)

Promoted RE100* and steadily reduced CO₂ emissions at plants

Production through low-carbon processes → Supply of low-carbon raw materials and fuels

*RE100: An international initiative for companies that aim to procure 100% of the electricity required for their business operations from renewable energy sources.

In July 2018, we became the world's first company in the recycling industry to join RE100.

Sustainability Strategy Goals (2023.6 – 2027.6)



Net sales

Ordinary profit

ROE

2027.6

¥75bn

CAGR(2023→2027) 8%

¥5bn

CAGR(2023→2027) 15%

13%

2023.6

¥55.0bn

¥2.9bn

12%

2022.6

¥57.3bn

¥4.1bn

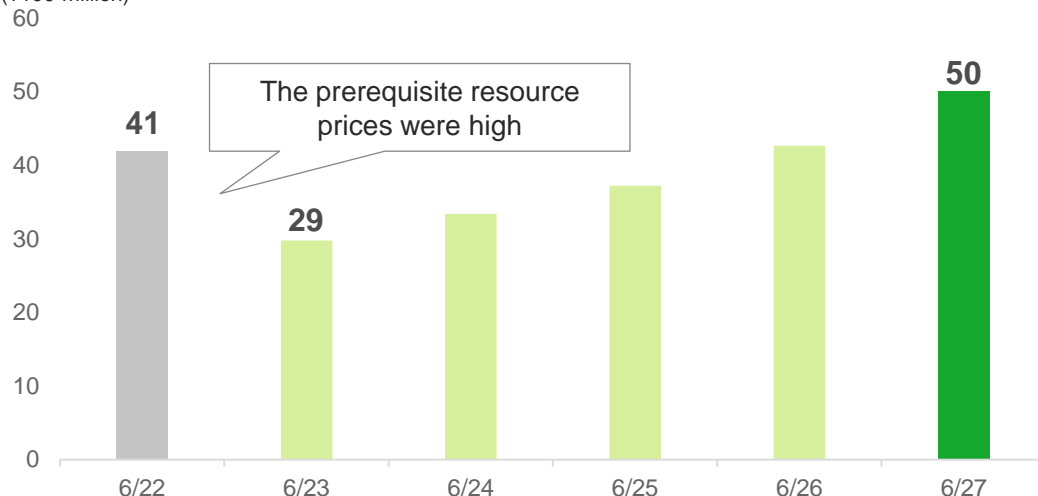
22%

Prerequisites (After July 2022)

Ferrous scrap price	Electrolytic copper price	Gold price	Silver price	Nickel price	Cobalt price	Exchange rate
¥45,000/ t	¥1,050/kg	¥7,000/g	¥85,000/kg	¥2,650/kg	¥7,000/kg	¥125/USD

Consolidated Ordinary Profit Target Trend

(¥100 million)



(Actual)

Market prices rose significantly in FY2022.



Internal reserves rose as profits increased.



A new medium-term management plan was created in anticipation of growth through bold investments.

Increasing investment from approximately ¥6 billion over the last 5 years to ¥20 billion over the next 5 years



Investment in Existing Businesses

- Expansion of plants
- Introduction of new technology, promotion of DX
- Environmental improvement, strengthening of safety measures



Investment in Growth Businesses

- Lithium-ion battery recycling business
- Advanced plastic recycling business
- Secure human resources and intellectual property



Investment in M&A etc.

- Accelerating growth
- Synergy creation
- Alliance with growing companies

2027.6 Target	
Net Sales	¥28_{bn}
CAGR(2023→2027)	9%
2023.6 Forecast	¥19.5bn
2022.6 Actual	¥20.3bn

2027.6 Target	
Ordinary Profit	¥3.8_{bn}
CAGR(2023→2027)	14%
2023.6 Forecast	¥2.2bn
2022.6 Actual	¥2.7bn

Implement the following initiatives for further growth based on existing businesses

① Collection of gold, silver & copper sediment sludge from waste incineration ash and waste incineration ash recycling

- Collection of gold, silver & copper sediment sludge from riddling ash
- Collection of gold, silver & copper sediment sludge from incinerator bottom ash and incinerator bottom ash recycling
- Introduction of hydrometallurgical plants of gold, silver & copper sediment sludge

② Cleaning and dismantling work nationwide

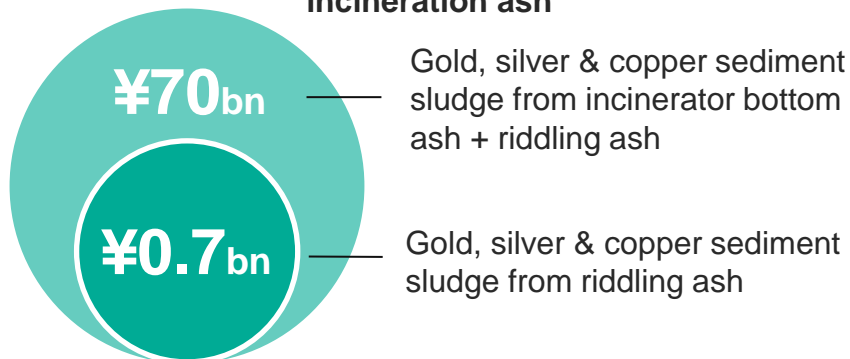
- Securing nationwide projects
- Improvement of safety, technical, skills of personnel
- Developing a network of partner companies

③ Plastic recycling

- Promotion of new technological development
- Responding to new laws and regulations
- Strengthening relationships with local governments

Making the collection of gold, silver & copper sediment sludge from incineration ash, etc. one of the pillars of business

Gold, silver & copper sediment sludge market from waste incineration ash



*According to our research

Progress in collection of gold, silver & copper sediment sludge from riddling ash

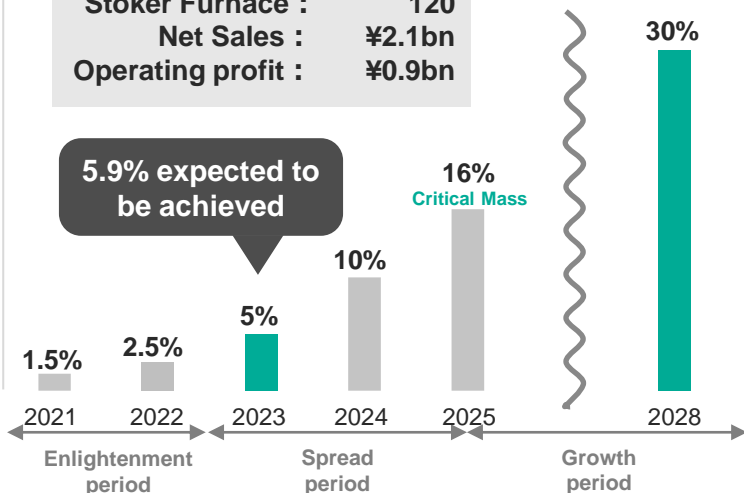


*New furnace with specifications to take riddling ash separately

2028 Target (renewed)

Stoker Furnace : 120
 Net Sales : ¥2.1bn
 Operating profit : ¥0.9bn

Market share (Target)



*Financial results briefing materials on February 22, 2021

Construction of gold, silver & copper sediment sludge collection plant (third in the group)

- Location: Kuroda Recycle Co.,Ltd. (Hakodate City, Hokkaido)
- Maximum processing capacity: 18,000t / year
- Planned total investment: Approx. 0.2 bn yen
- Scheduled start of operation: November 2022




New Plant Construction

- Planned construction site: Econecol Inc. (Fuji City, Shizuoka)
- Site area: 13,259m²
- Planned total investment: Approx. 1.8 bn yen
- Scheduled start of operation: January 2023



Increase collaboration models with companies that have properties and companies or organizations close to property information (financial institutions, real estate companies, logistics companies, manufacturers, etc.) in factory and plant dismantling, etc.

Business alliance with Sumitomo Mitsui Trust Panasonic Finance Co., Ltd. and Japan Machinery Leasing and Sales Co., Ltd. (Announced on November 12, 2021)




Purchase of used machinery
(value of used)

Japan Machinery Leasing and Sales Co., Ltd.

Bulk purchase of movable facilities and ancillary facilities, etc. of manufacturing plants


One-stop solution for dismantling buildings and disposal of unnecessary facilities etc.



Disposal and purchase of scrap
(Resource value)

Econecol Inc.

Unnecessary materials or movable properties that cannot be purchased as used value also can purchase at resource value



Dismantling of plants and facilities
(Resource value)

Econecol Inc.

Reduce costs by collectively dismantling and removing plants and facilities in the plants. Returning the value of scrap discharged from dismantling as a resource

Plants · Facilities · Machinery

Dismantling of buildings and facilities

Industrial waste disposal

Joint implementation of asset evaluation

Decision support for transfers, disposals, and business restructuring, etc.

Increase in business opportunities

Decrease of the customer's disposal costs due to an increase in resource prices

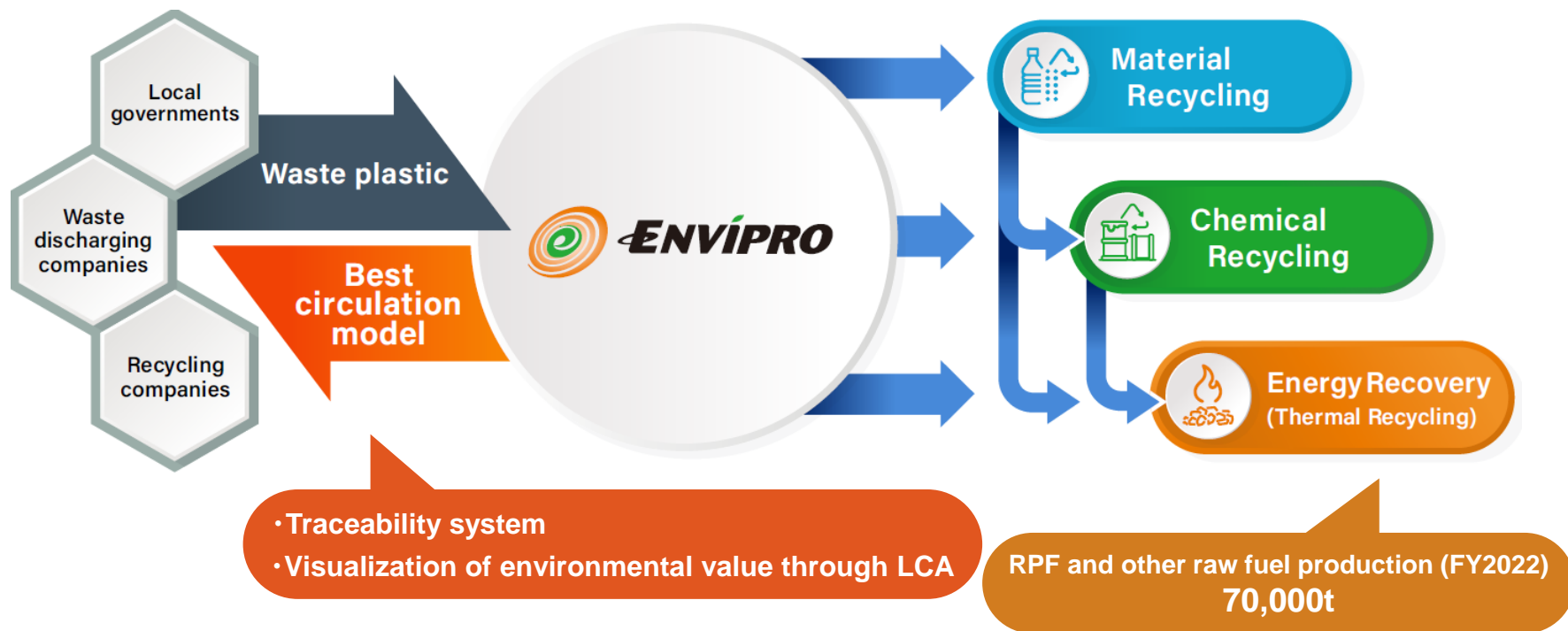
Increase in asset holdings in the leasing business

Stimulate capital investment related to decarbonization

Future focus

- 1) Strengthening cooperation with financial institutions, etc.
- 2) Response to large-scale projects through ocean transportation
- 3) Developing a network of partner companies

Advanced resource circulation through multilayered combination of recycling methods



Soft

- CE traceability system under development
- System related to the calculation of CO₂ emissions under development

Hard

- TBM Yokosuka recycling plant (Material)
- New chemical recycling business under development (Chemical)
- Existing recycling plant (Thermal)

2027.6 Target	
Net Sales	¥52bn
CAGR(2023→2027)	6%
2023.6 Forecast	¥41.3bn
2022.6 Actual	¥42.9bn

2027.6 Target	
Ordinary Profit	¥1.5bn
CAGR(2023→2027)	12%
2023.6 Forecast	¥0.9bn
2022.6 Actual	¥1.1bn

① Resource distribution Expansion of handling volume

- Strengthening ties with domestic and overseas steel, nonferrous, and other manufacturers
- Expansion of imports and trilateral trade

② Resource distribution Expansion of items handled

- Metal scrap (ferrous scrap, nonferrous metals, minor metals, electronics, gold, silver & copper sediment sludge)
- Battery scrap (waste *LIB, *BM)
- Waste paper, worn clothing, miscellaneous goods, used steel products, biomass fuels, etc.

③ Reuse distribution

- Transformation of the business model specializing in used cars
- Expansion of logistics business through spin-off

*LIB: Lithium-ion batteries

*BM (Black mass) : Cobalt and nickel concentrate containing carbon

5-year handling volume target

0.54million t → **1million t**

(Actual handling volume in FY2022)

1 Ferrous scrap

- Establishment of sales schemes with domestic and overseas steel manufacturers
- Opening new yards
- Increase in handling of new products

2 Nonferrous metals, etc.

- Increase in nonferrous handling volume by utilizing existing yards
- Establishment of a safe import scheme for waste LIB
- Import of gold, silver & copper sediment sludge, expansion of trilateral trade

3 Development of overseas bases

- Establishment of recycling facilities in Europe
- Establishment of recycling facilities in Southeast Asia
- Development of new businesses utilizing overseas subsidiaries

2027.6 Target	
Net Sales	¥3.3bn
CAGR(2023→2027)	26%
2023.6 Forecast	¥1.3bn
2022.6 Actual	¥1.3bn

2027.6 Target	
Ordinary Profit	¥0.2bn
CAGR(2023→2027)	12%
2023.6 Forecast	¥0.12bn
2022.6 Actual	¥0.47bn

Implement the following initiatives to prepare for rapid market expansion after 2030

① Collection system

- Four *BM plants in Japan and abroad
- BM purchases from domestic and overseas peers
- Establishment of a safe import scheme for *LIB

② Production system

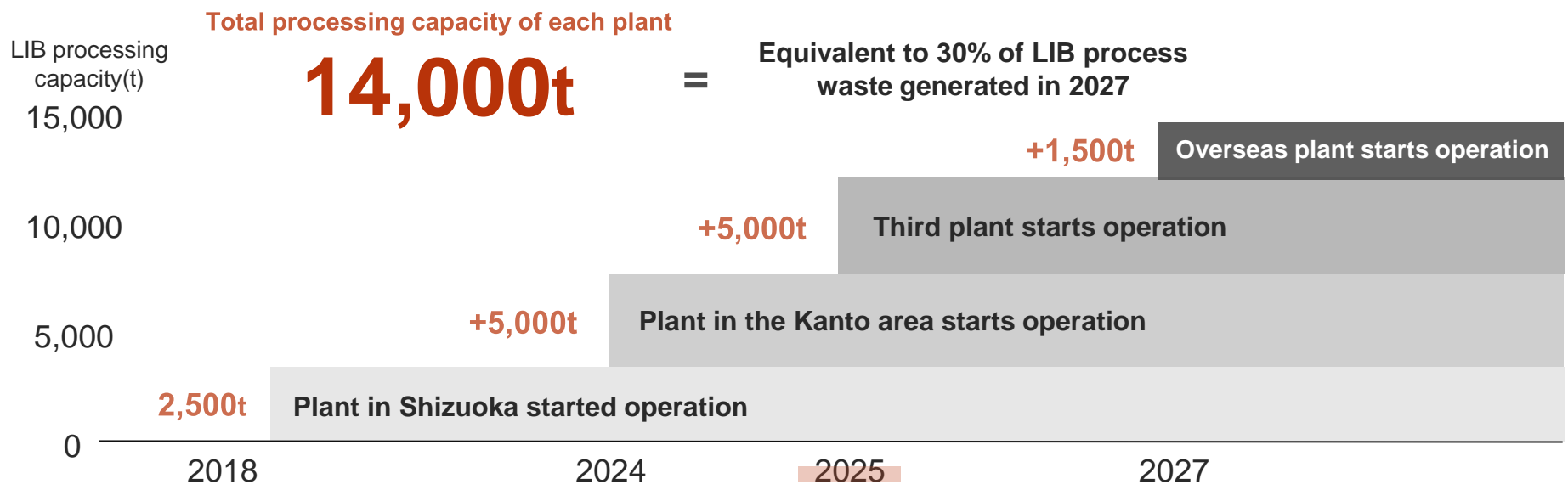
- Enhancement of analysis and research system (from 5 to 15 laboratory staff)
- Strengthening our systems of own plant design, execution, and maintenance
- Training of employees with expertise in chemistry

③ Hydrometallurgical plant

- Utilization of existing hydrometallurgical technology
- Scale-up of new hydrometallurgical technology
- Strengthening alliances

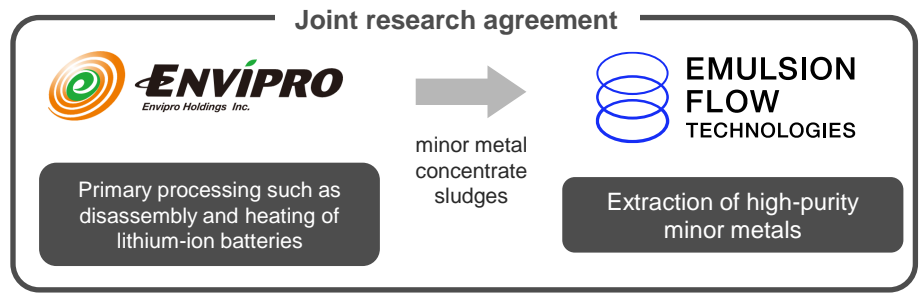
Expansion of Recycling Plants

Securing processing capacity for LIB recycling through aggressive growth investment



Focus points

- 1) Expected 10 billion yen investment
- 2) Construction of BM hydrometallurgical plant the processing capacity of which is 8,000t (in 2025)
- 3) Extraction of high-purity minor metals at low cost through commercialization of new hydrometallurgical technology (right figure)



2027.6 Target	
Net Sales	¥0.7 bn
CAGR(2023→2027)	9%
2023.6 Forecast	¥0.48bn
2022.6 Actual	¥0.44bn

2027.6 Target	
Ordinary Profit	¥0.2bn
CAGR(2023→2027)	16%
2023.6 Forecast	¥0.11bn
2022.6 Actual	¥0.12bn

Response to environmental issues and promotion of diversity toward the realization of a sustainable society

Environment Management Consulting Business



Expansion of circular economy consulting

Providing integrated circular economy services through consulting & solutions

Promotion of DX business

Development of Circular Economy and *GHG emissions visualization system

*GHG: Greenhouse gasses

Welfare Service Business for People with Disabilities



明日が"かがやく"ところをつくる

Development of Pre-Employment Transition Support

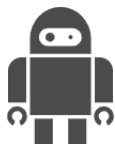
Commercialization of support for self-reliance and reclude support in addition to pre-employment transition

Group cooperation

Employment of people with disabilities:20
Legally mandated employment rate: 3.8%

Promotion of labor savings in production processes and utilization of data in business activities

Smart plants



- Collecting IoT data and detecting abnormalities
- Introduction of robots into the production process
- Horizontal deployment of smart plant construction expertise

Data utilization



- Creating a QCD database for the venous industry
- Visualization of GHG emissions and support for carbon credit procurement
- Improving profitability of new locations

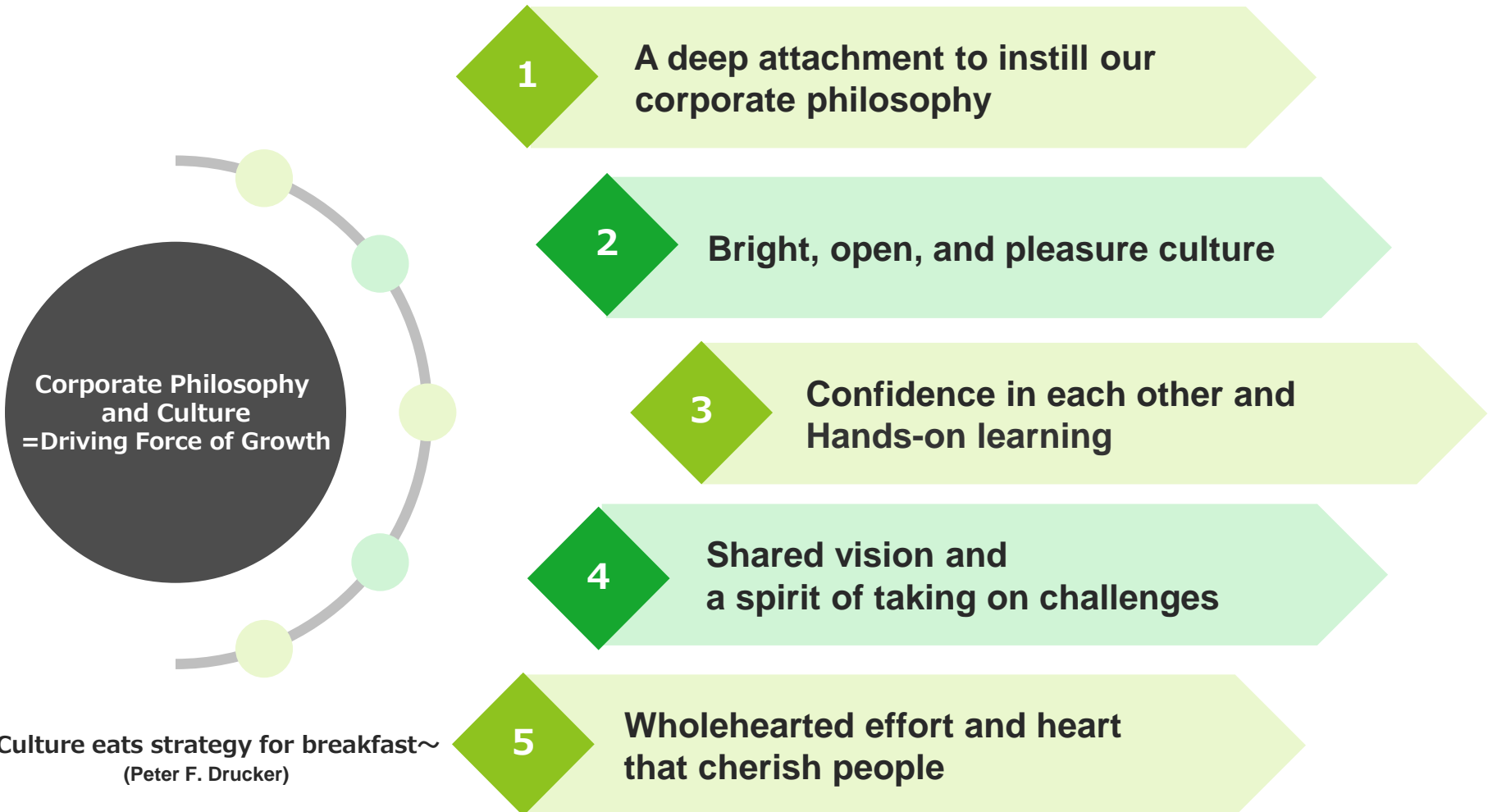
Traceability



- Circular economy traceability system under development
- System related to the calculation of CO₂ emissions under development
- Creation of new businesses utilizing data visualization

(Image of our organization)

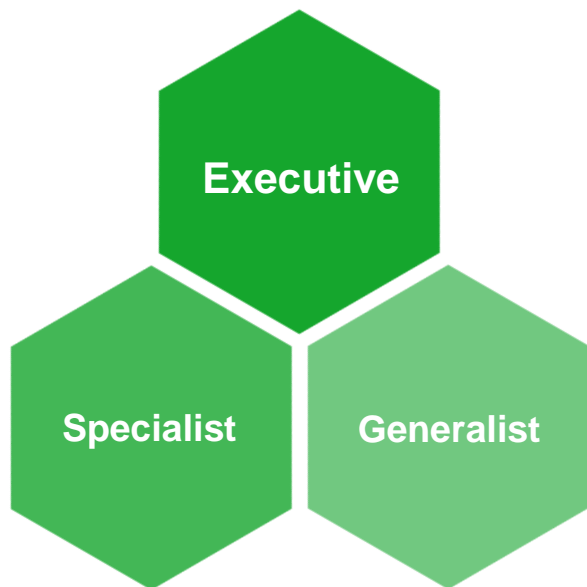
A disciplined group of autonomous individuals with emergent abilities



~Culture eats strategy for breakfast~
(Peter F. Drucker)

5 year target

100 Business Promoters through hiring and employee development



- Candidate for president of HD and Group companies**
 Human resources who have experience of launching business, expanding them globally, finance, and making business investment decisions, etc.
- Leaders who take advantage of high technology**
 Human resources who promote business by taking advantage of expertise related to digital transformation, IP management, and research and development, etc.
- Leaders who promote projects**
 Human resources who have extensive knowledge and multilateral perspective in the target area, and manage team members in each field.

 **Hiring**

Employer branding by corporate philosophy

- Appealing growth and vision
- Hiring for potential
- Management team members directly making speedy hiring decisions.

 **Development**

Corporate culture which encourages people to take on challenges

- Corporate culture which allows people to boldly take on challenges and fail.
- Assignment to projects across the company
- Project reports directly to management team.

 **Retention**

Engagement improvement policy

- Flexibly able to change departments
- Increase in base salary, Increase in bonuses, Stock compensation
- Conversation and discussion with management team members.

Long-Term Initiatives of Corporate Value Creation

To realize the optimization of the business portfolio by deepening or withdrawing from existing businesses, investing aggressively in growth sectors, and searching for new businesses

(Image diagram)

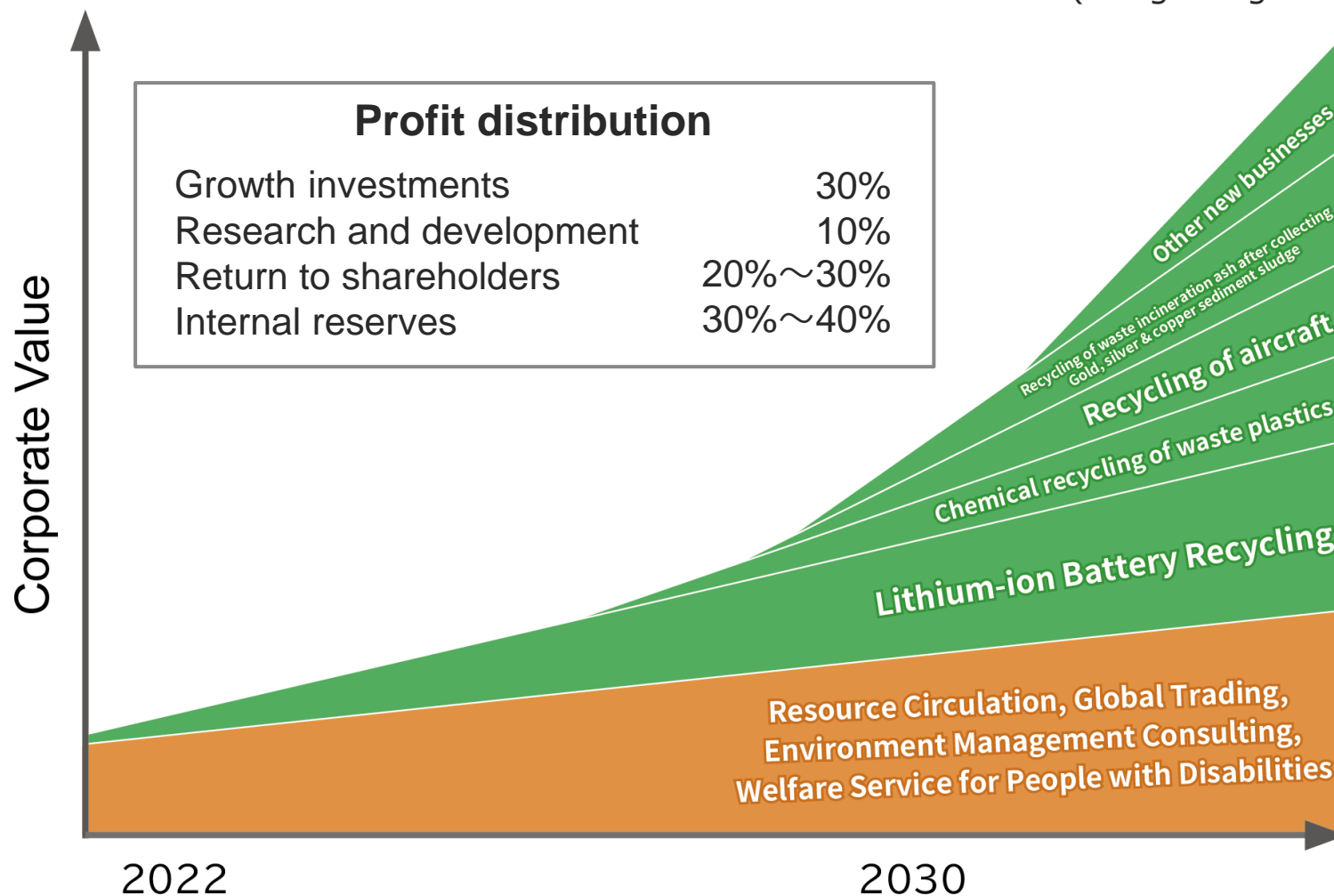
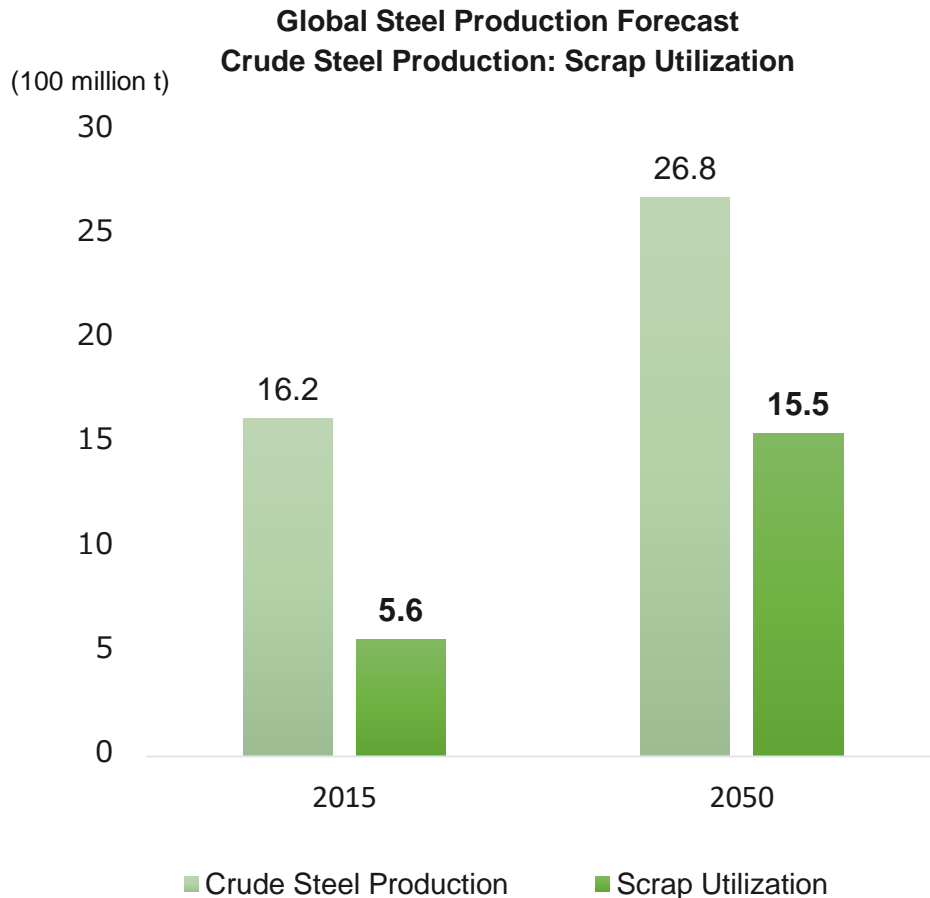


Table of contents

1 . Medium-Term Management Plan

2 . Reference Data

Increasing Demand for Ferrous Scrap



Source: Excerpted from The Japan Iron and Steel Federation's "Long-term vision for climate change mitigation (Forecasts of steel stock accumulation and steel production)" published on November 19, 2018 (graph created based on excerpted figures)

Electricity, the energy source of electric furnaces which in the manufacturing process emit only a quarter of the CO₂ of blast furnaces, enables carbon neutrality to be achieved when the electricity supply is from renewable resources

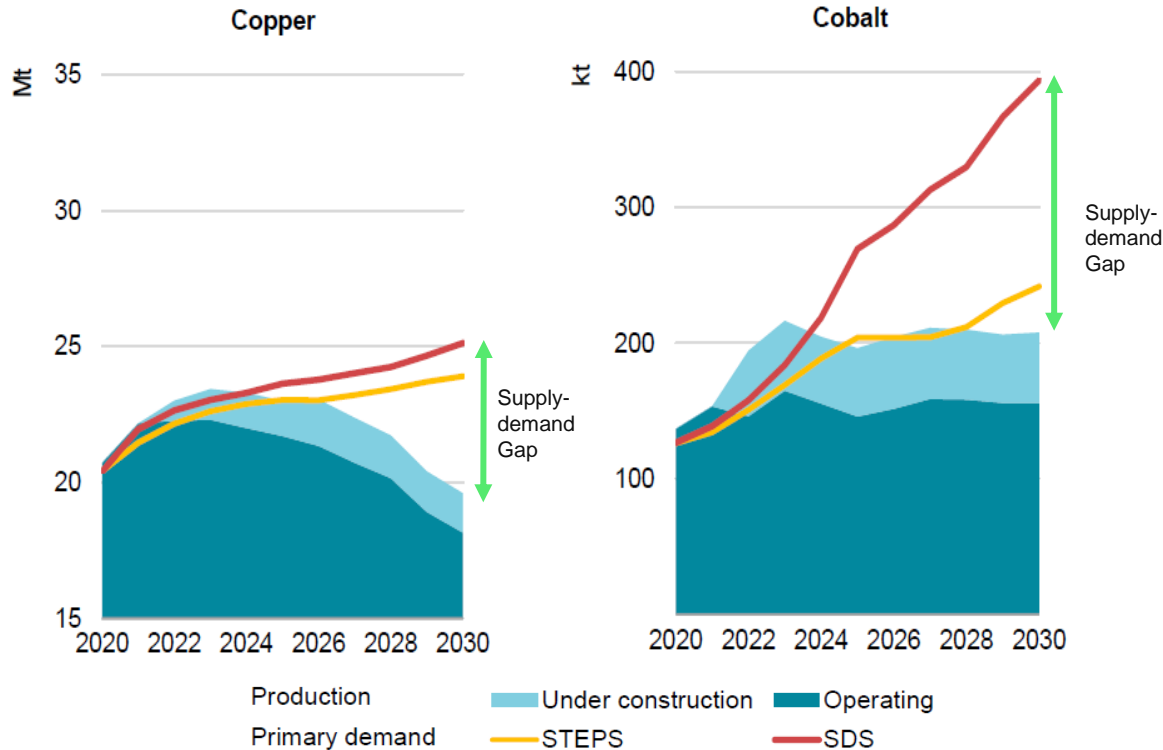
Source: Ministry of the Environment website "Minutes of the Fifth Meeting of the Subcommittee on Mid- to Long-term Roadmap"

New installation of large electric furnace facilities by blast furnace manufacturers, increase in steel scrap mixing rate in converters

In a decarbonized society, demand for ferrous scrap (green materials) is expected to increase.

Increasing Demand for Nonferrous Metals and Minor Metals

■ Supply-demand gap for nonferrous metals and minor metals due to diffusion of clean energy technologies



Supply-demand gap is expected to increase, and the value of these nonferrous metals and minor metals is likely to remain high and stable

Source: IEA World Energy Outlook Special Report, The Role of Critical Minerals in Clean Energy Transitions

The acceleration of decarbonization will further increase demand for secondary raw materials (green materials) for nonferrous metals and minor metals, from aboveground resources (urban mines).

Important notes about this material

This material is intended to provide investors with information to understand the current status of ENVIPRO HOLDINGS Inc.

Although the contents in this material are described based on generally recognized socio-economic situations, etc., and certain assumptions that our company regarded as reasonable, they may change without prior notice of any kind because of the change in the business environment.



Inquiry desk about this material and IR

Corporate Planning Department,
ENVIPRO HOLDINGS Inc.

TEL +81-544-21-3160

URL <https://envipro.jp/en/>