



## **Furukawa Electric Co., Ltd.**

Briefing for Medium-term Management Plan 2022 ~ 2025 (25 Medium-term Plan)

May 26, 2022

[Number of Speakers] 3

Keiichi Kobayashi	President
Satoshi Miyamoto	Director and Corporate Executive Vice President, General Manager, Strategy Division
Akihiro Fukunaga	Director and Corporate Senior Vice President, General Manager, Finance & Accounting Division

Furukawa Electric Group  
Medium-term Management Plan 2022~2025  
(2025 Mid-term Plan)

***Road to Vision 2030***  
***-Transform and Challenge-***

President & CEO Keiichi Kobayashi

May 26, 2022

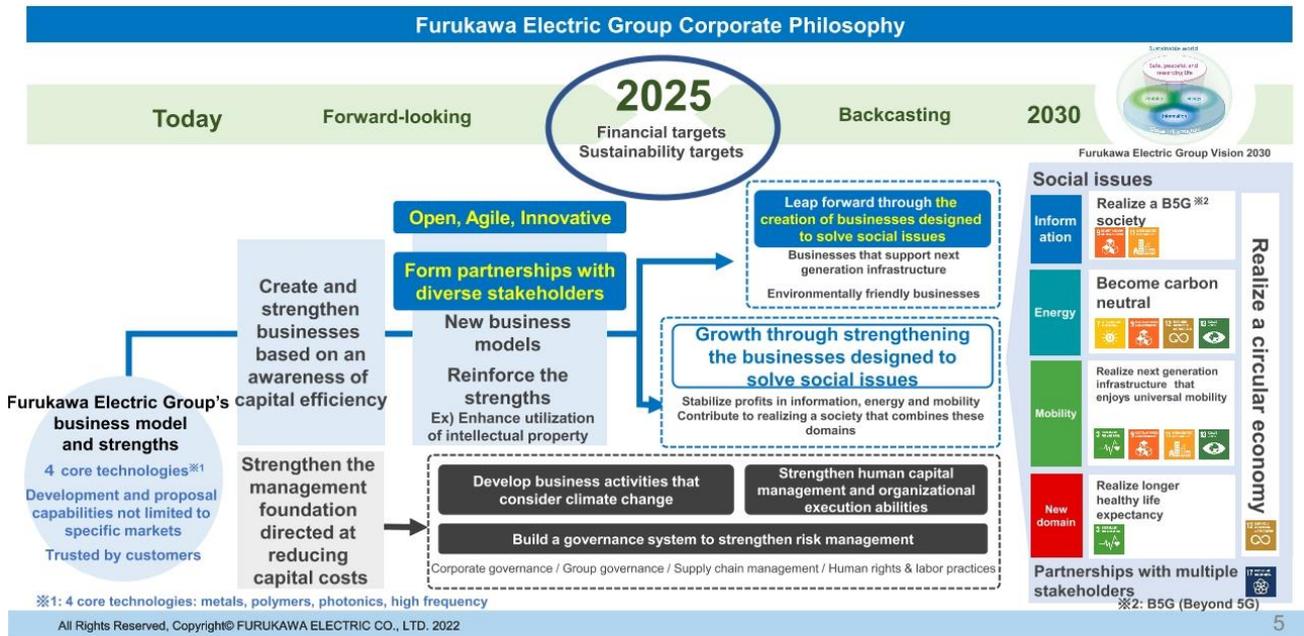
Furukawa Electric Co., Ltd.

All Rights Reserved, Copyright© FURUKAWA ELECTRIC CO., LTD. 2022

**Kobayashi:** Ladies and gentlemen, I am Kobayashi. Thank you very much for joining us at this late hour today for the presentation of our Medium-Term Management Plan.

I would now like to explain our Medium-Term Management Plan 2022 to 2025, "Road to Vision 2030 -Transform and Challenge-."

# 1. Vision 2030 and positioning of 2025 Mid-term Plan Value creation process directed at achieving Vision 2030



First, I would like to explain our Vision 2030 and positioning of 2025 Mid-term Plan.

First, before I explain the positioning of the 2025 Mid-term Plan, I would like to explain a little about the positioning of our group vision 2030 in this diagram.

As you can see on the right, when we formulated the Furukawa Electric Group Vision 2030, we envisioned the following social issues: the realization of a Beyond 5G society for information, carbon neutral for energy, next-generation infrastructure that enjoys universal mobility, and longer healthy life expectancy for the new domain.

At the same time, we have placed the realization of a circular economy as our challenge and decided what roadmap we should follow by backcasting to date.

By backcasting from the perspective, as the 2025 Mid-term Plan, we have determined what the Furukawa Electric Group should be like in 2025 when it is going to be an indispensable company in 2030, and decided our measures on forward looking toward the roadmap. In this context, we have set financial and sustainability targets.

# 1. Vision 2030 and positioning of 2025 Mid-term Plan

## Positioning of 2025 Mid-term Plan



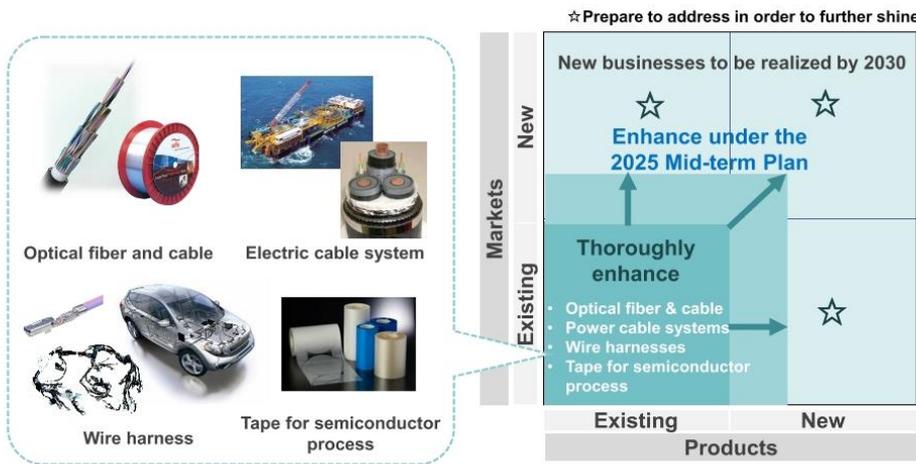
Forward-looking

Maximize profits in existing businesses through a focus on capital efficiency directed at 2025

Build a foundation for creating new businesses by 2030

Backcasting

2030



Furukawa Electric Group Vision 2030

All Rights Reserved, Copyright© FURUKAWA ELECTRIC CO., LTD, 2022

6

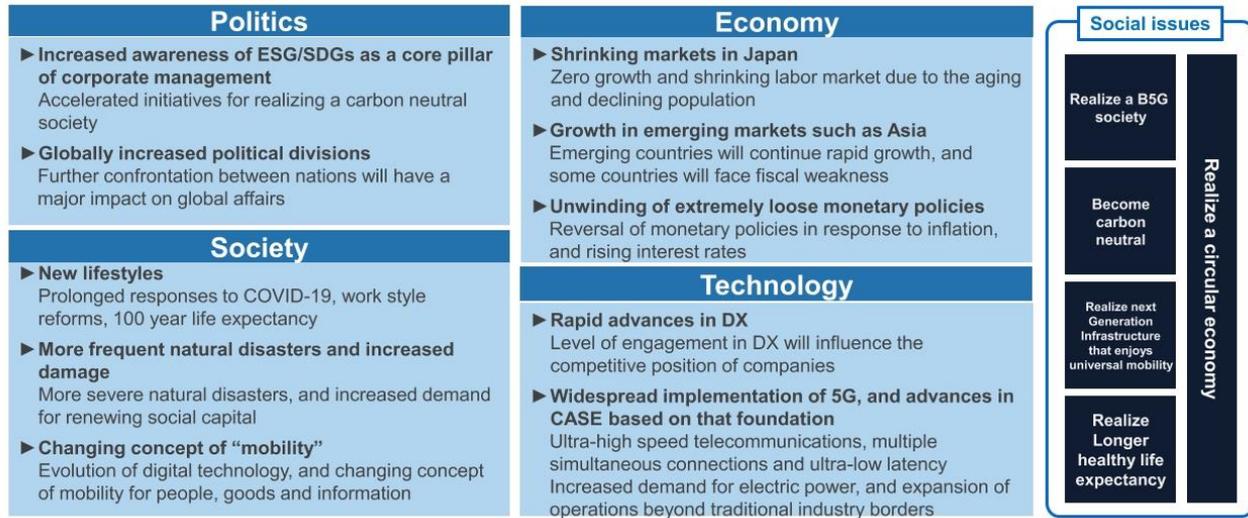
From a forward-looking perspective, this positioning is to maximize profits in existing businesses through a focus on capital efficiency directed at 2025, and in the diagram below, we will thoroughly enhance existing products in existing markets.

And by enhancing this under the 2025 Mid-term Plan, from a backcasting perspective as shown one line down, we will develop a foundation for creating new businesses by 2030.

# 1. Vision 2030 and positioning of 2025 Mid-term Plan

## Medium-term changes in the external environment

The external environment is rapidly changing on many fronts, and although there is increasing risk that responding incorrectly may be fatal, the range of social issues Furukawa Electric can contribute to is growing



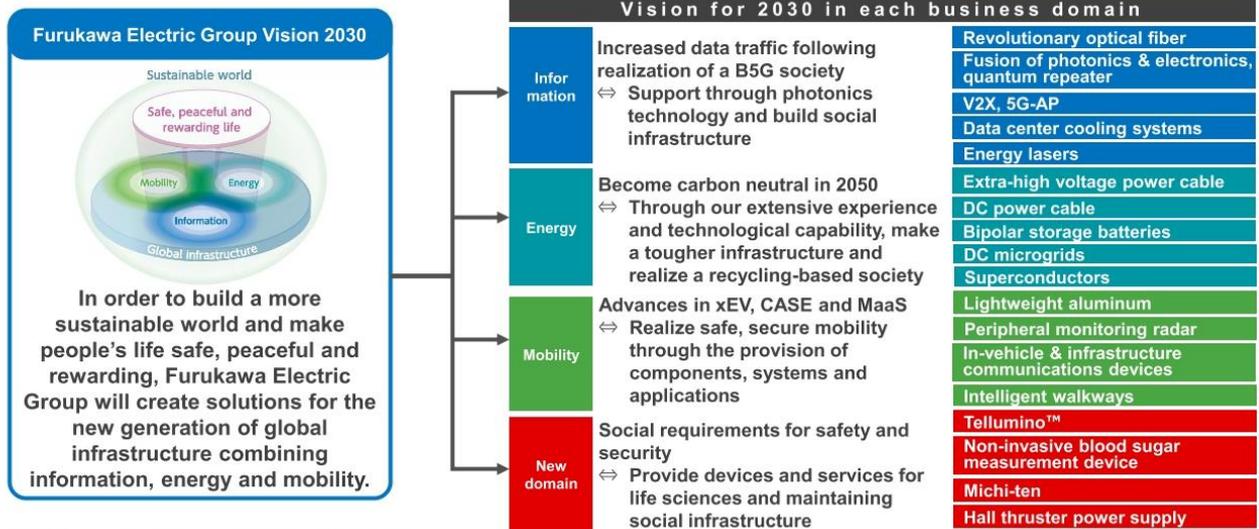
In this context, changes in the external environment over the medium to long term are very rapid. On the other hand, factors in the external environment, such as the realization of a carbon-neutral society, shrinking markets in Japan, frequent natural disasters and advances in DX and CASE, have not changed significantly since before COVID-19.

In particular, the pace of change is accelerating with the promotion of work style reforms, rapid advances in DX, and increased political divisions. In this context, we have analyzed the politics, economy, society, and technology. We believe that our opportunities to solve the issues shown on the right side are increasing.

1. Vision 2030 and positioning of 2025 Mid-term Plan  
**Vision 2030 (Each business domain)**

**Create new value with customers as partners, and solve social issues**

~ Furukawa Electric Group's technology, products and services will "support" and be "utilized by" society ~



All Rights Reserved, Copyright© FURUKAWA ELECTRIC CO., LTD, 2022

Then, this is our Vision 2030 in each business domain. The Furukawa Electric Group's technologies, products, and services will support and be utilized by society to solve the social issues I have just mentioned.

The Vision 2030 for each domain is shown on the right side of the diagram. This is a list of products and technologies that will support and be utilized for each of the social issues in the information, energy, mobility, and new domains.

**Contribute to realizing a circular economy by continuing to invest management resources in creating new value**

**Become carbon neutral throughout the supply chain**

**Realize a circular economy in concert with others**



- 3 principles of a circular economy**
1. Designed to not generate waste materials or pollution
  2. Can continue using the products and materials
  3. Restores the natural systems



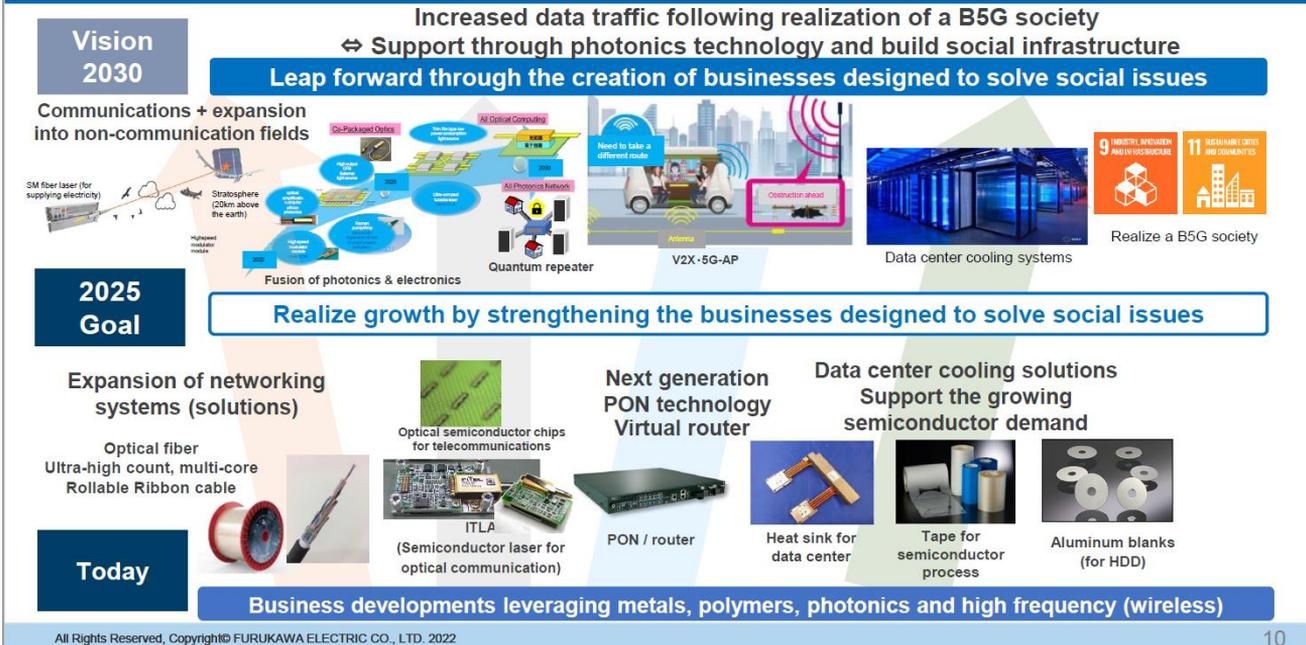
**Collaboration in concert with partners through sympathy with the ecosystem**



At the same time, we must achieve a circular economy. As for circular economy, it is of course difficult for an individual company to become carbon neutral throughout the supply chain.

However, I call this ecosystem a concert, in which companies complement each other in areas that are not closed within each company. We will collaborate in concert with partners and complement each other. We believe that if this ecosystem can concert with partners, we can co-create with our partners and realize the circular economy as a whole. We are determined to contribute to the realization of the circular economy through the concert and collaboration in this ecosystem.

# 1. Vision 2030 and positioning of 2025 Mid-term Plan Telecommunications: Realize a B5G society



All Rights Reserved, Copyright© FURUKAWA ELECTRIC CO., LTD. 2022

From here, I would like to share with you our vision to solve social issues in each domain.

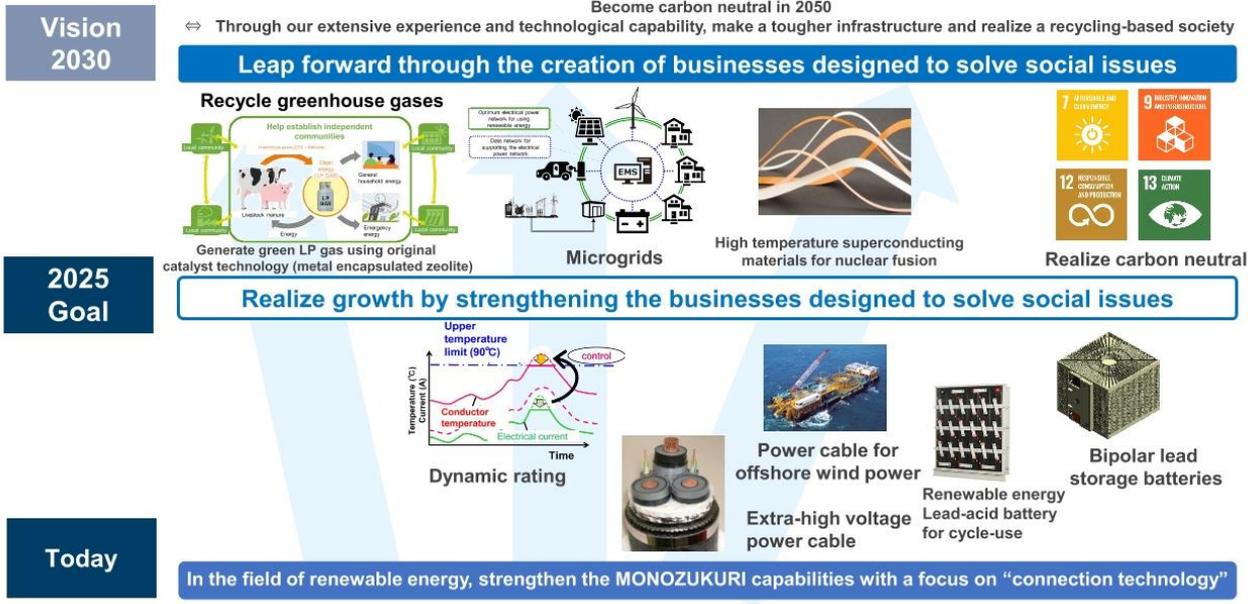
First, Telecommunications: Realize a Beyond 5G society.

And underneath is Vision 2030. Increased data traffic following realization of a Beyond 5G society. When we say increase in data traffic, we mean that in a Beyond 5G society, there will be an increase in upstream traffic from sensors, IoT, and devices that generate large volumes of distributed information, in addition to the conventional human-centered downstream traffic.

We need to achieve flexible, scalable, high-speed, high-capacity, low-latency, and low-power consumption as our social issue, and we will support this with photonics technology to build a social infrastructure, which is our Vision 2030. To this end, we will thoroughly enhance and grow our business in the 2025 Mid-term Plan, including energy lasers, fusion of photonics & electronics, quantum repeater, V2X, and so on.

At the same time, we will make these stronger from today to 2025 goal, which is shown at the bottom. We will create the next link by strengthening networking systems, optical fibers, ultra-high count, multi-core rollable ribbon cables, semiconductor lasers for optical communication such as ITLA, and next-generation PON.

# 1. Vision 2030 and positioning of 2025 Mid-term Plan Energy: Carbon neutral



Next is the Energy domain.

After all, how can we contribute to carbon neutral? We would like to establish the business of recycling of greenhouse gases through our catalyst technology based on metal encapsulated zeolite, or high-temperature superconducting wires for microgrids and nuclear fusion in 2030.

To this end, we are now firmly extending and strengthening these extra-high voltage power cables, power cables for offshore wind power, and a group of storage batteries, including bipolar lead storage batteries. In the energy domain, we will strengthen the MONOZUKURI capabilities with a focus on connection technology.

# 1. Vision 2030 and positioning of 2025 Mid-term Plan

## Mobility: Enjoy universal mobility



This is the Mobility domain.

Regarding universal mobility, our challenge is to provide the components, systems and applications involved in promoting xEV, CASE and MaaS to ensure safe and secure mobility. In this sense, V2X telecommunications, wireless power transmission and next-generation urban planning need to be firmly commercialized. To this end, we are still enhancing components such as aluminum wire harnesses, peripheral monitoring radar and BSS.

2. Create and strengthen businesses designed to solve social issues  
 (1) Maximize profits in existing businesses through a focus on capital efficiency directed at 2025

	Approach to solving the issues	Main products and services
<b>Communications Solutions</b>	<ul style="list-style-type: none"> <li>High value added optical fiber and cable</li> <li>Build optical network infrastructure and provide robust solutions</li> <li>High output, high efficiency, concentrated light sources</li> </ul>	<ul style="list-style-type: none"> <li>RR cable ·Submarine / specialty fibers ·Fusion splicer</li> <li>Networking system (solutions business)</li> <li>Semiconductor lasers for optical communication</li> <li>High output fiber lasers for industrial use</li> </ul>
<b>Energy Infrastructure</b>	<ul style="list-style-type: none"> <li>Power cable systems for renewable energy</li> <li>Develop next generation infrastructure for the aging society</li> <li>Build a tough social infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Submarine and underground power cable for renewable energy</li> <li>Extra-high voltage underground power cable (reduce project time and manpower)</li> <li>Aluminum conductor CV cable ·Plug-in connectors</li> </ul>
<b>Automotive Products &amp; Batteries</b>	<ul style="list-style-type: none"> <li>Environmentally friendly products for vehicle electrification, lighter weight and energy management</li> <li>Advances in danger detection</li> </ul>	<ul style="list-style-type: none"> <li>Aluminum wire harnesses ·BSS®</li> <li>High voltage harnesses and wiring components</li> <li>Lead-acid batteries</li> <li>SRC ·Peripheral monitoring radar</li> </ul>
<b>Electronics Component Materials</b>	<ul style="list-style-type: none"> <li>Products with excellent thermal properties, and products that decrease vehicle weight and increase fuel efficiency</li> <li>Materials for supporting electric vehicles, ADAS equipped vehicles and next generation telecommunications networks</li> </ul>	<ul style="list-style-type: none"> <li>Copper alloy strips for connectors</li> <li>Aluminum alloy wire for harnesses</li> <li>Bondable wire for in-vehicle ECUs</li> <li>Thin diameter magnet wire for inductors used in telecommunications infrastructure</li> </ul>
<b>Functional Products</b>	<ul style="list-style-type: none"> <li>Products for building high speed, high capacity, low latency telecommunications networks</li> <li>Products that contribute to efficient energy use</li> </ul>	<ul style="list-style-type: none"> <li>Tape for semiconductor process</li> <li>Heat dissipation / cooling products</li> <li>Aluminum blanks for HDD</li> <li>Electrolytic copper foil for printed wiring boards / batteries</li> </ul>

Now, I will talk a little more about strengthening and creating the businesses designed to solve social issues and maximizing profits in existing businesses through a focus on capital efficiency directed at 2025.

This is a matrix of maximizing profits in existing businesses through a focus on capital efficiency directed at 2025. For each business, the approach to solving problems and the main products and services used in that approach are described. The following is an explanation of the major items.

**[Optical fiber and cable]**

**Increase sales of high value added products and accelerate the expansion of the networking systems business**



First is optical fiber and cable.

The left side of the diagram shows the business environment, the center shows our business strategy based on that business environment, and the right side shows the initiatives for realizing the strategy. As for optical fiber and cable, medium- to long-term growth of optical fiber demand is expected to continue in the business environment. And customer requirements are diversifying.

In North America, where we are based, there are negative factors such as rising wages due to a decline in the unemployment rate. However, our strategy in this situation is to triple sales of rollable ribbon cables, and we will firmly aim to increase sales of this high value-added product.

We also have another strength in our business model that we have developed in Latin America. We will expand this networking system business and focus on the US, Europe, and Asia to increase sales by 30%. On the right side are initiatives for realizing these strategies. First, we will continue to increase productivity and reduce costs.

More details will be given at the June business meeting, but as for productivity, which has been the subject of much concern, we have shown the state of our capacity as of March, as I mentioned at the recent financial results meeting. Furthermore, the same ability was also present in April. Further improvement is important here. At the same time, we will promote sales expansion of specialty fibers. In addition, we need to strengthen collaboration within the Group in order to expand our networking system, and we will continue to work on this.



**[Wire harness]**

**Expand the business, increase profitability and promote redundancies / resilience in the supply chain**



Realize next generation infrastructure that enjoys universal mobility

**Business environment**

- **Increased customer needs for lighter weight**
  - Accelerated shift to EV in response to the trend toward carbon neutral
- **Demand assumption: CAGR of +4 - 5%** (Estimate by Furukawa Electric)
  - Impact of the semiconductor shortage is expected to remain ongoing until FY23
- **Continued supply chain issues**
  - Further BCM related requirements from customers
  - Soaring transportation expenses will remain prolonged



**Business strategy**

**Maintain superiority in aluminum harnesses**  
**Expand the harness business and increase profitability**  
 Reap the benefits from the investments in increased production

Aluminum wire harness use  
 Expand from 56 models of 6 manufacturers in the end of FY21 to 100 models of 8 manufacturers in FY25



**Promote redundancies/ resilience in the supply chain**  
**Enhance the supplemental production systems at multiple sites**  
 Bridge production, optimized production network  
 Secure "strategic space"  
**Reduce required manpower and space through automation**

**Initiatives for realizing the strategy**

**Secure orders and make α terminals the defacto standard**

Promote awareness of the superiority and reliability

- Integrated production from the aluminum casting to cable manufacturing and laser machining of the terminals
- High corrosion resistance of the α terminals



**Prepare a response for next generation wiring systems (from FY25)**

**Logistics response**  
 Secure multiple logistics routes and containers

**Appropriate inventory response**  
 Consider BCM and reestablish appropriate inventory levels in partnership with customers

This is related to wire harnesses.

In the business environment, customers' needs for lightweight products continue to increase. We will further accelerate our efforts. Furthermore, as a demand assumption, we expect an average annual improvement of 4% to 5%, although it is very difficult at this time. On the other hand, due to the impact of COVID-19 and other factors, we believe that the supply chain continues to be a challenge, and that further improvements are needed.

Our strategy in such an environment is, above all, to maintain the superiority of this aluminum wire harness. Jumping a little to the right, a major feature among the superiority of our aluminum wire harness is the alpha terminals. The high corrosion resistance of the alpha terminals maintains its superiority, and as a result of its further evolution, as shown in the middle, the number of models will increase from 56 models from six manufacturers at the end of 2021 to 100 models from eight manufacturers by 2025.

Naturally, in order to ensure the delivery of these products, it is also necessary to promote redundancies and resilience in the supply chain, as shown below. To address this issue, we will enhance the supplemental production systems at multiple sites, and reduce required manpower and space through automation.

At the same time, as you can see on the right side, we are considering logistics response, not a single route, but multiple routes, and we will also promote appropriate inventory response in cooperation with our customers.

**[Bipolar lead storage batteries]**  
 Contribute through safe, long-life, low cost, recyclable batteries



Realize a carbon-free society

Realize tougher infrastructure

Realize a recycling-based society



**Bipolar lead storage batteries.**

In this business environment, the market for storage batteries for power storage is expanding rapidly, and the issues that the market is seeking are safety, longer life and recyclability, as well as minimizing total costs.

Our business strategy is to promote the strengths of our bipolar products in terms of safety, longer life, low costs and recyclability, and to play a leading role in the renewable energy and long-period markets.

We have been talking about starting sample production in 2021 and mass production in 2022 for some time. We are firmly following this path and are proceeding with the launch of samples and mass production. In particular, as I have already explained, we are participating in a project with Kyushu Electric Power Company in Saga Prefecture.

In addition, we will promote sales. We are working on the creation of products that incorporate customer feedback in the renewable energy market.

In this way, we will advance into the area of "KOTOZUKURI" by expanding the business domains to include systems for realizing the stable use of renewable energy and maintenance and service.

**【Tape for semiconductor process】**

**Secure a stable supply network and continue to provide high performance/ well differentiated products**

Business environment	Business strategy	Initiatives for realizing the strategy								
<p>□ Medium to long-term demand growth in the semiconductor market</p> <p>□ Increased requirements for lower environmental impact</p> <p>Global semiconductor market (Billion \$)</p> <table border="1"> <tr><th>Year</th><th>Market Size (Billion \$)</th></tr> <tr><td>2021</td><td>~550</td></tr> <tr><td>2025</td><td>~750</td></tr> <tr><td>2030</td><td>~1,100</td></tr> </table> <p>※Estimate by Furukawa Electric</p> <p>【Market changes and technology issues】</p> <ul style="list-style-type: none"> <li>• More heat generated from the wiring due to higher densities</li> <li>• Thinner wafers as a result of 3D stacking in response to increased data volume</li> </ul>	Year	Market Size (Billion \$)	2021	~550	2025	~750	2030	~1,100	<p><b>Continued semiconductor demand growth</b>                  ⇒ <b>Secure a stable supply network</b></p> <p><b>Increase sales 1.8 times</b></p> <p>FY21      FY25</p> <p><b>Device &amp; process advancements</b>                  Enhance the strengths in technology &amp; MONOZUKURI</p> <p>⇒ <b>Continue to provide high performance / well differentiated products</b></p> <p>Adhesive, thermal conduction, base film design</p>	<p><b>Expand production capacity</b>                  CAPEX: Approx. JPY 7.0 bil. (FY22-FY25)                  Start construction in Sept. 2022 with mass production planned to start in April 2025</p> <p>※Implement measures to reduce environmental impact</p> <ul style="list-style-type: none"> <li>• Waste heat collection</li> <li>• Solar power</li> </ul> <p>New building and manufacturing line at the Mie Works</p> <p><b>Response to technology issues</b></p> <p>Response to heat generation</p> <ul style="list-style-type: none"> <li>• Increase heat dissipation using adhesive film with high thermal conductivity</li> </ul> <p>Response to thinner wafers</p> <ul style="list-style-type: none"> <li>• Optimize through the base film and adhesion control</li> </ul>
Year	Market Size (Billion \$)									
2021	~550									
2025	~750									
2030	~1,100									

9 ENERGY RELATED ACTIVITIES  
 11 GREENHOUSE GAS EMISSIONS

Realize a B5G society

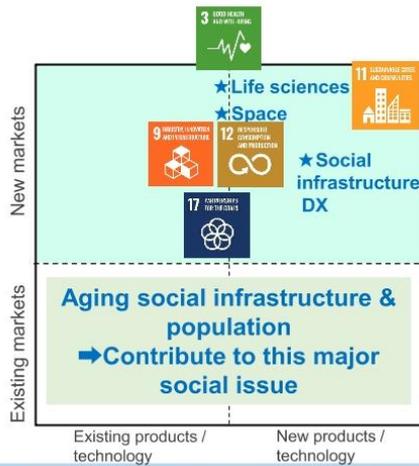
**Tapes for semiconductor process.**

The business environment is characterized by medium- to long-term demand growth in the semiconductor market and increased requirements for lower environmental impact. In this context, there is a high demand for our tapes, and our business strategy is, first and foremost, to ensure a stable supply system, and as I have already explained, we will continue to enhance our production capacity with a capital investment of JPY7.0 billion shown on the right.

Furthermore, we have heard of many technical challenges in this market. One is the issue of heat generation, and the other is the issue of making wafers as thin as possible. In response to this, as described in the middle of the page, we will continue to provide high performance and well differentiated products by responding to heat generation and thinner wafers, as shown on the right.

From new businesses to businesses that contribute to maintaining social infrastructure and increasing healthy life expectancy

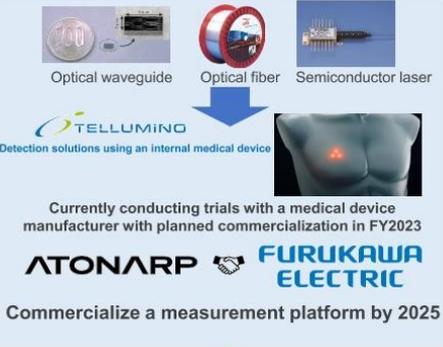
Use an Ansoff growth matrix to define the new businesses and identify new business domains



Social infrastructure DX  
 Create a database of various data including position data and imaging



Life sciences  
 Photonics technology + proposal capability that anticipates medical practitioners' jobs



Accelerate the growth of new businesses

Strategic investment Agile implementation

Next, new businesses that contribute to maintaining social infrastructure and increasing healthy life expectancy.

On the right is the social infrastructure DX. We have already started commercialization for the national & local governments, construction consultants and highway corporations. We will further expand the projects.

In the life sciences area, we are currently conducting trials with a medical device manufacturer with planned commercialization in FY2023.

In order to accelerate the growth of these new businesses, we will implement flexible strategic investments and other measures, depending on the situation.

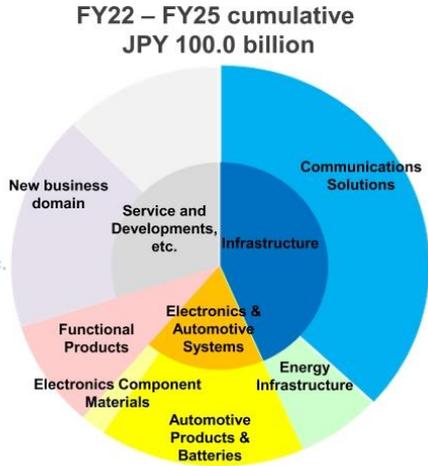
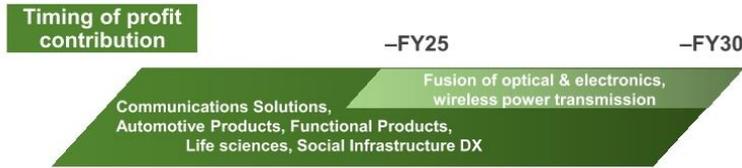
**R&D  
expenses**

**Focus on R&D activities with an emphasis on profit creation  
 Within the 2025 MTMP period, contribute to the new domains where  
 businesses have been established**

[Priority domains]

- Communications Solutions: RR cable, optical devices, networking systems
- Automotive Products: Wire harnesses, SRC, peripheral monitoring radar
- Functional Products: Data center products
- New businesses: [New domains] Life sciences, social infrastructure DX

[Information/energy/mobility] Fusion of optical / electronics, hybrid  
 lasers, wireless power transmission, etc.

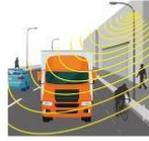


The R&D activities that I have mentioned so far, which are focused on profit generation, are being carried out in the priority domains below that.

As you can see in the pie chart on the right, we will spend JPY100.0 billion from 2022 to 2025 on communications solutions, energy infrastructure, automotive products & batteries, and functional products businesses.

**Based on the group’s core technologies, contribute to the realization of next generation networks as an IOWN partner**

Utilizing photonics and wireless technology, “support simultaneous realization and be a valued partner”



Create photonics products that will solve the social issues in 2030

<b>2022</b>	 Excitation light source for Raman amplifiers	 Semiconductor optical amplifier for silicon photonics	 High speed modulator	 High output DFB external light source	 Ultra-small tunable laser	 Optical fiber with new functions	<b>2030</b>
-------------	---	--	---	--	--	---	-------------

In April 2022, launched the “Project for the creation of next generation photonics businesses” reporting directly to the president

Next, building a foundation for creating new businesses by 2030.

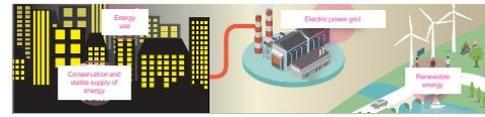
First of all, we have the great task of contributing to the realization of next generation networks as an IOWN partner, based on the Group’s core technologies. Our role is to support simultaneous realization and be a valued partner utilizing photonics and wireless technology.

Below is a list of our current products. Various products are listed from 2022. Our mission is to further evolve these products, to create the next model, and to create products that will solve social issues in 2030. This is why, in April, we launched the “project for the creation of next generation photonics businesses” reporting directly to the President.

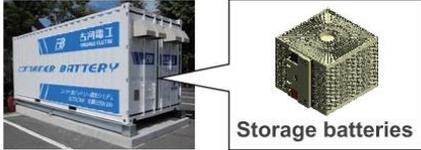
2. Create and strengthen businesses designed to solve social issues  
**(2) Build a foundation for creating new businesses by 2030**

**Become carbon neutral together with the local communities through increased local independence and “local production, consumption & succession”<sup>※</sup> of energy**

- ① Eliminate or reduce direct CO<sub>2</sub> emissions
- ② Eliminate or reduce CO<sub>2</sub> emissions by society
- ③ Capture or transform the CO<sub>2</sub> that is emitted

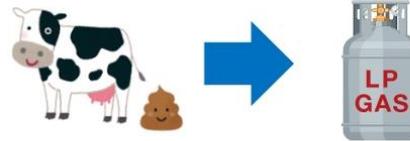


**Store energy**

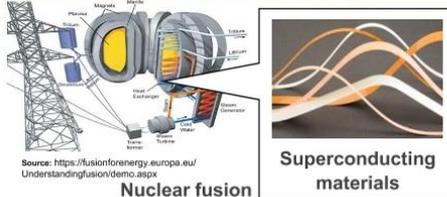


Storage batteries

**Generate green LP gas from manure**



**Create clean energy**

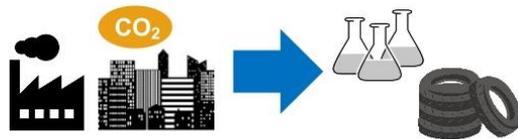


Source: <https://fusionforenergy.europa.eu/Understandingfusion/demo.aspx>

Nuclear fusion

Superconducting materials

**Transform CO<sub>2</sub> into chemical products**



※Local production, consumption and succession: In addition to local consumption of local production, pass down the local resources and culture to future generations

Another is to become carbon neutral together with the local communities through increased local independence and local production, consumption & succession of energy.

As shown here, our approach to carbon neutral is to ①eliminate or reduce direct CO<sub>2</sub> emissions, ②eliminate or reduce CO<sub>2</sub> emissions by society and ③capture or transform the CO<sub>2</sub> that is emitted.

Another key word is local independence. In terms of local independence, it is important to develop various technologies and turn them into businesses.

In this context, our approach includes storage batteries in the sense of storing energy, and superconducting materials in the sense of creating clean energy. And as we recently announced with Tochigi Prefecture, we have taken the first step in our business by developing technologies to generate green LP gas from manure and to transform CO<sub>2</sub> into chemical products. We need to enhance these businesses and make them solid businesses for 2030.

**R&D  
expenses**

**Increase profits in new domains and create new businesses that solve social issues in the domains that combine information, energy and mobility**

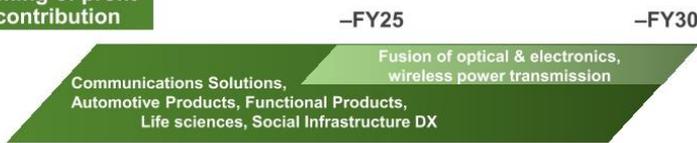
**[Priority domains]**

- Communications Solutions: RR cable, optical devices, networking systems
- Automotive Products: Wire harnesses, SRC, peripheral monitoring radar
- Functional Products: Data center products
- **New businesses: [New domains] Life sciences, social infrastructure DX**

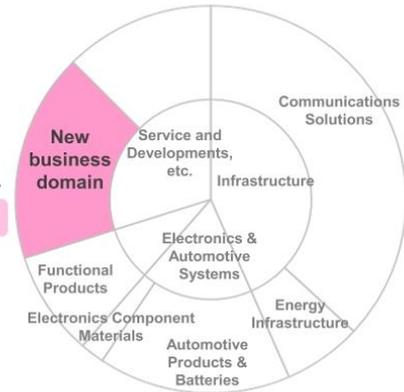
**[Information/energy/mobility] Fusion of optical / electronics, hybrid lasers, wireless power transmission, etc.**

R&D expense growth rate for new businesses: 125% (FY25 sustainability indicator\* (compared to FY21))

**Timing of profit contribution**



**FY22 – FY25 cumulative  
JPY 100.0 billion**



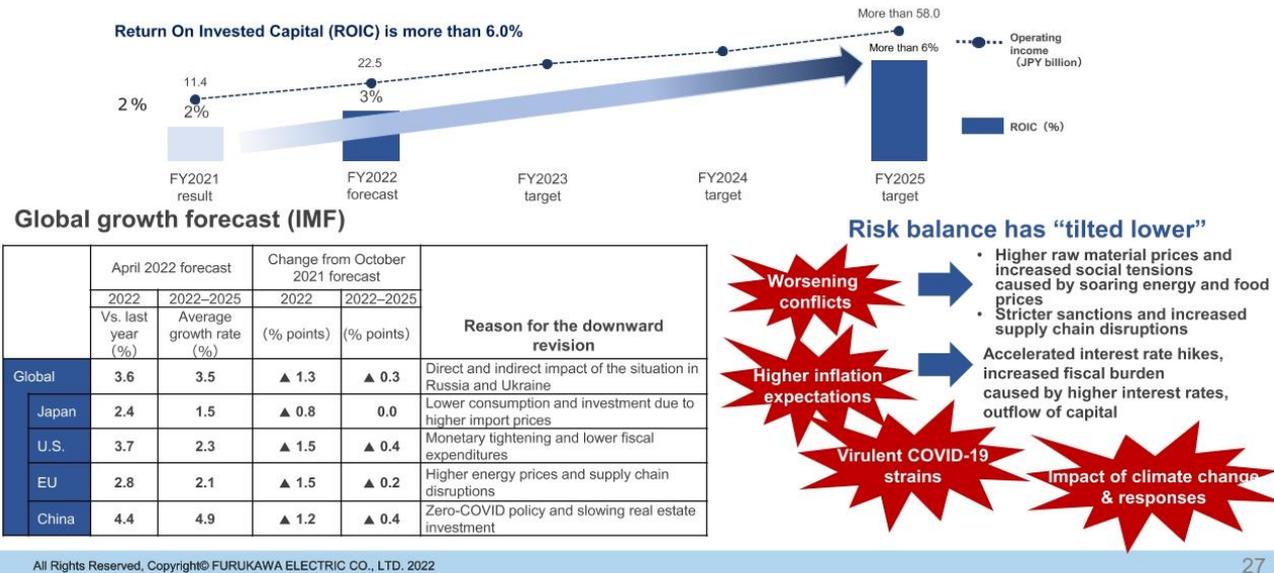
※Sustainability Indicators (reference P43 Appendix)

R&D expenses used in increasing profits in new domains and creating new businesses that solve social issues in the domains that combine information, energy and mobility are shown as new business domain in the pie chart on the right. The rate of increase is 125% compared to FY2021. We believe it is important to conduct a thorough study.

With Vision 2030 in place, we have been able to create various roadmaps. Even under very difficult circumstances, as a result of our efforts not to limit our research expenses and to focus on new technologies and new products, which we believe are the muscle of our company, we have been able to sprout several new businesses. To further grow these business is an important issue for us.

### 3. Numerical management targets and allocation of management resources Financial goals (formulating 25 Mid-term Plan)

While incorporating the business risks with consideration for the external environment, realize “increased capital efficiency” through business growth and cost cutting



I will now explain our numerical management targets and allocation of management resources.

As you can see below, the outlook for the global economy is not optimistic. Furthermore, as you can see on the right, there are various risks, and the risk balance has tilted lower. We have factored in several risks shown on the right side of the arrows.

Under these circumstances, we have set a minimum target of 6% or more for ROIC and JPY58.0 billion or more for operating income by realizing increased capital efficiency through business growth and cost cutting.

### 3. Numerical management targets and allocation of management resources

#### Financial goals

	FY2021 result	FY2022 forecast		FY2025 target
<b>ROIC (after tax)</b>	2.0%	3%	▶	<b>More than 6%</b>
<b>ROE</b>	3.7%	5%	▶	<b>More than 11%</b>
<b>Net D/E ratio</b>	1.0	1.0	▶	<b>Less than 0.8</b>
<b>Capital ratio</b>	29.8%	30%	▶	<b>More than 35%</b>
<b>Sales</b>	JPY 930.5 billion	JPY 1,050.0 billion	▶	<b>JPY 1,100.0 billion</b>
<b>Operating income</b>	JPY 11.4 billion	JPY 22.5 billion	▶	<b>More than JPY 58.0 billion</b>
<b>Net income attributable to owners of the parent</b>	JPY 10.1 billion	JPY 14.0 billion	▶	<b>More than JPY 37.0 billion</b>
<b>Average copper price (JPY/Kg)</b>	1,136	1,260		<b>1,085</b>
<b>Average exchange rate (JPY/dollar)</b>	112	120		<b>110</b>

All Rights Reserved, Copyright© FURUKAWA ELECTRIC CO., LTD. 2022

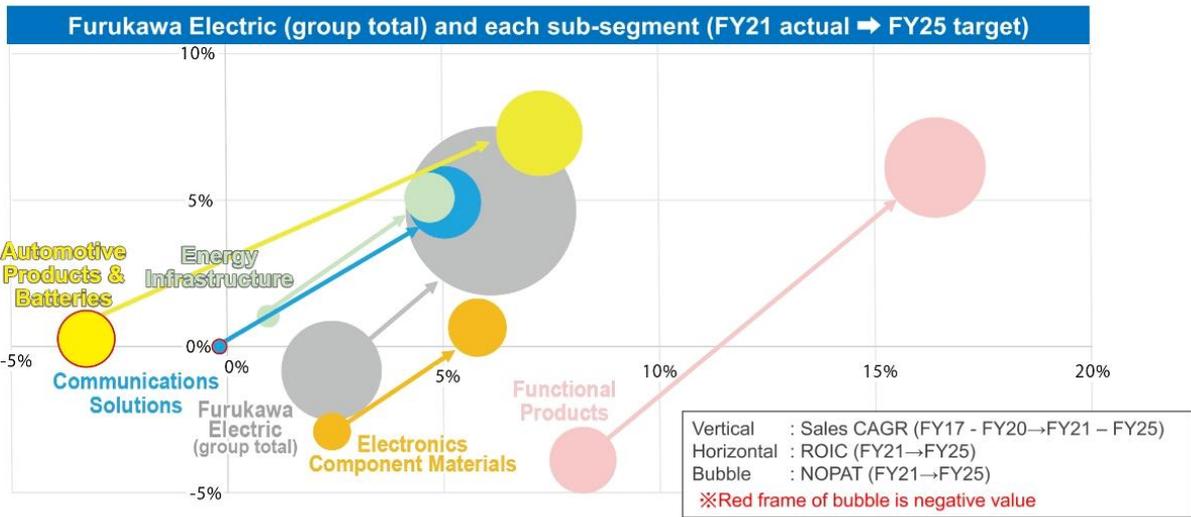
28

The entire table is shown here.

Please note that our ROIC is after-tax. In pre-tax figures, this is more than 9%. We have set targets as ROE of more than 11%, net D/E ratio of less than 0.8, capital ratio of more than 35%, net sales of JPY1.1 trillion, operating income of more than JPY58.0 billion and net income of more than JPY37.0 billion.

At this time, average copper price is JPY1,085 per kilogram, and the average exchange rate is JPY110 per US dollar. We will aim for both business growth, improved profitability and capital efficiency, ROIC and ROE. We will never be in a diminishing equilibrium thinking.

**Steadily optimize the business portfolio, and aim to achieve ROIC of at least 6% by FY2025**



In this figure, the vertical axis is sales CAGR. The horizontal axis is ROIC. For each bubble, the root side is FY2021, the arrow side is FY2025, and the bubble size shows NOPAT.

Unfortunately, as shown by the red frame of bubble, there were some negative values in FY2021. However, by eliminating these problems and putting the Company on a growth trajectory, we are aiming for ROIC of 6% or more for the Group total, as shown on the right-hand side.

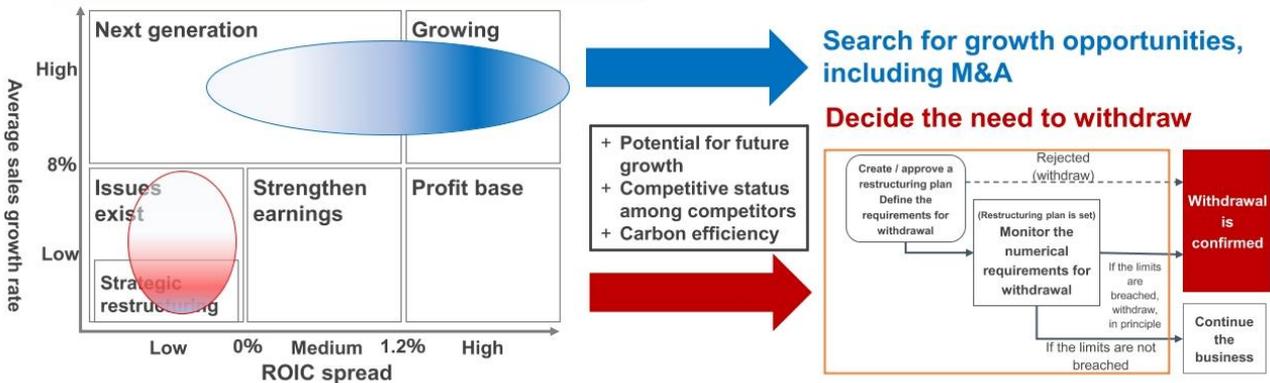
We are aware of the spread. In order for us to make profits with compound interest at all times, we want to set a spread of 1% or more at all costs.

By making the position of each business visible and optimizing the investment allocation based on that positioning, transform management and the decision making process so it will have increased awareness of capital costs

1. Make the current status and positioning visible

2. Decide the allocation of management resources (investment)

3. Reorganize the business portfolio

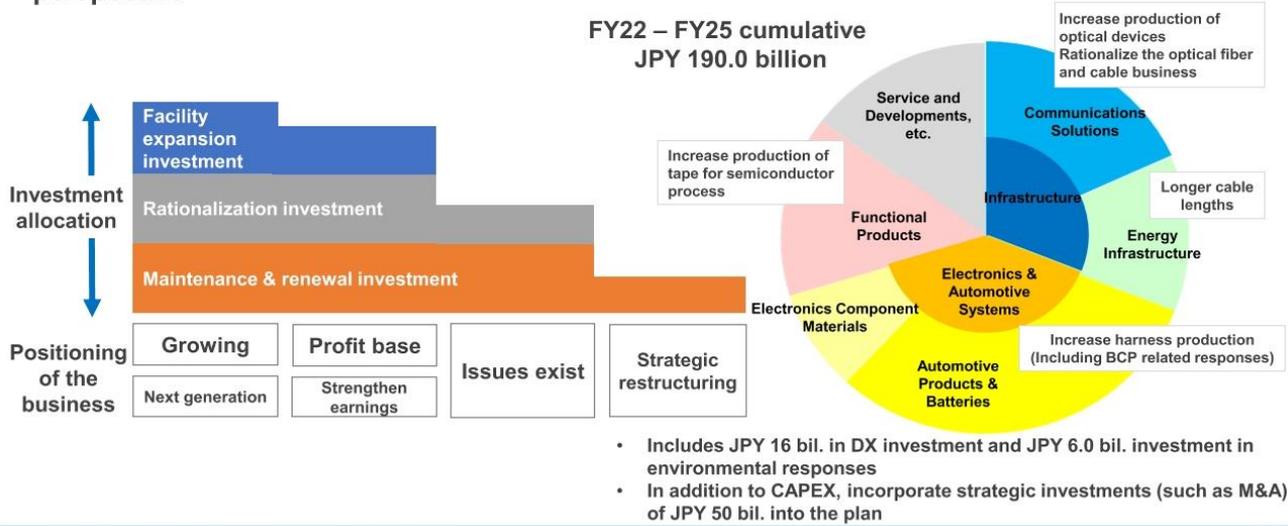


How do we use these visuals? We have been using our business assets and operating income to make decisions on various businesses, selling to other companies or downsizing those that we are not the best owner of at this time. At the same time, in order to raise each business to the ground for making decisions on these matters, we have improved our product mix or others and made them stronger.

As a result, how do we use these visuals? As shown in the figure below, the vertical axis is the average sales growth rate and the horizontal axis is the ROIC spread. We have positioned each business as next-generation, growing, issue exist, strategic restructuring, strengthen earnings and profit base, and will promote various improvement activities in each business.

Where this is located, as well as future growth potential, our competitiveness, and carbon efficiency are taken into account. For example, the blue bubble area shown above is to search for growth opportunities, including M&A. The red area is to decide the need to withdraw. We will make these decisions decisively and proceed with them.

Based on the positioning of the business, implement controlled execution of well-defined investments, and make investments in DX and environmental responses from a companywide perspective



In this sense, we have already begun to implement well balanced investment controls according to the positioning of the business.

As you can see below, depending on the positioning of the business, we decide on whether we can invest only in maintenance and renewal, only up to rationalization, or even facility expansion, and we are proceeding based on these judgments.

### 3. Numerical management targets and allocation of management resources Capital and cash allocation policy

Through investment in growth domains and securing a financial foundation for achieving growth, aim to sustainably increase corporate value

<b>Well-defined investments and controlled execution</b>	<p><b>CAPEX allocation based on the positioning of the business</b>  <b>Actively invest in businesses that will drive growth</b>            Transform the business structure of the overall group            Set a framework for strategic investments</p>
<b>Secure a healthy financial foundation</b>	<p><b>Management focused on capital efficiency</b>            Stabilize financial health            Maintain and improve the credit rating</p> <p><b>Healthy capital / debt structure</b>            Procure capital through interest-bearing debt based on consideration for the balance with earnings capability (EBITDA)</p>
<b>Clarify the policy for shareholder returns</b>	<p><b>Set a quantitative target for the dividend payout ratio</b>            Payout ratio of 30%</p>



This is the capital and cash allocation policy.

Through investment in growth domains and securing a financial foundation for achieving growth, we aim to sustainably increase our corporate value. We will then implement well-defined investments and controlled execution, secure a healthy financial foundation, and clarify the policy for shareholder returns.

### 3. Numerical management targets and allocation of management resources

#### Shareholder returns

#### Basic policy:

During the 2025 Medium-term Management Plan (fiscal year ending March 2023 – March 2026), along with working to increase corporate value through profit growth and focused investments in growth domains, Furukawa Electric has designated stable and ongoing shareholder returns as a basic policy and will issue a performance linked dividend based on a payout ratio of about 30% of consolidated net income attributable to owners of the parent company.

Annual dividend per share (JPY)



All Rights Reserved, Copyright© FURUKAWA ELECTRIC CO., LTD. 2022

33

#### Shareholder return policy.

In the past, we have always promised stable dividends. During the 2025 Medium-term Management Plan from the fiscal year ending March 2023 to the fiscal year ending March 2026, along with working to increase corporate value through profit growth and focused investments in growth domains, we have designated stable and ongoing shareholder returns as a basic policy, and will issue a performance-linked dividend based on a payout ratio of about 30% of consolidated net income attributable to owners of the parent.

4. Strengthen the foundation for ESG management

Strengthen the corporate functions that support business growth

Priority “materiality” directed at achieving Vision 2030

Opportunities	1	<p>Create businesses that solve social issues</p> <p>Create businesses that support next-generation infrastructure Create environment-friendly businesses</p>
	2	Open, Agile, Innovative
	3	Build partnerships with various stakeholders
Risks	E	Develop business activities that consider climate change
	S	Strengthen human capital management and organizational execution abilities
	G	Build a governance system to strengthen risk management
		<p>Corporate governance    Supply chain management</p> <p>Group governance        Human rights &amp; labor practices</p>

Set “sustainability indicators and targets” to be achieved during the 2025 Mid-term plan

**GHG emissions reductions** (Scope1, 2)  
(Compared to FY17) **28% reduction**

**Ratio of renewable energy use to total consumption**  
(FY17: 8%) Global **13%**

**Ratio of female managers**  
(at Furukawa Electric) **7%**  
(FY21: 3.8%)

**Implementation of training on human rights risks**  
(Start from Japan in FY22) **100%**  
All managerial positions globally

※Refer to the Appendix for the other sustainability indicators and targets

Finally, we will strengthen the foundation for ESG management.

We have set out priority “materialities” directed at achieving Vision 2030. Materialities for revenue opportunities include: Create businesses that solve social issues; Open, Agile, Innovative; and Build partnerships with various stakeholders. Materialities for risks include: Develop business activities that consider climate change; Strengthen human capital management and organizational execution abilities; and Build a governance system to strengthen risk management.



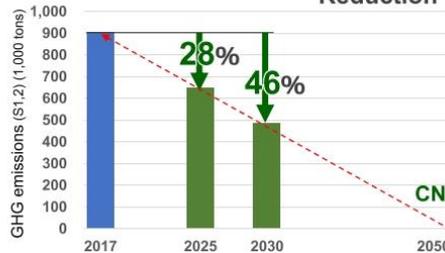
**Become carbon neutral in 2050 (Scope 1, 2)**

**1. Eliminate or reduce direct CO<sub>2</sub> emissions**

Energy saving, switch fuels, increase recycling rate, use renewable energy

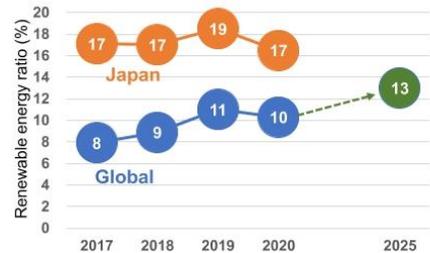
**GHG emissions reduction rate (Scope 1, 2) (Compared to FY17)**

**FY25 28% Reduction**



**Ratio of renewable energy use to total consumption**

**FY25 13%**



**2. Eliminate or reduce CO<sub>2</sub> emissions by society**

Aluminum wire harnesses, power cable for offshore wind power, bipolar storage batteries

**3. Capture or transform the CO<sub>2</sub> that is emitted**

Generate green LP gas using original catalyst technology (metal encapsulated zeolite)

We have declared that we will become carbon neutral in 2050.

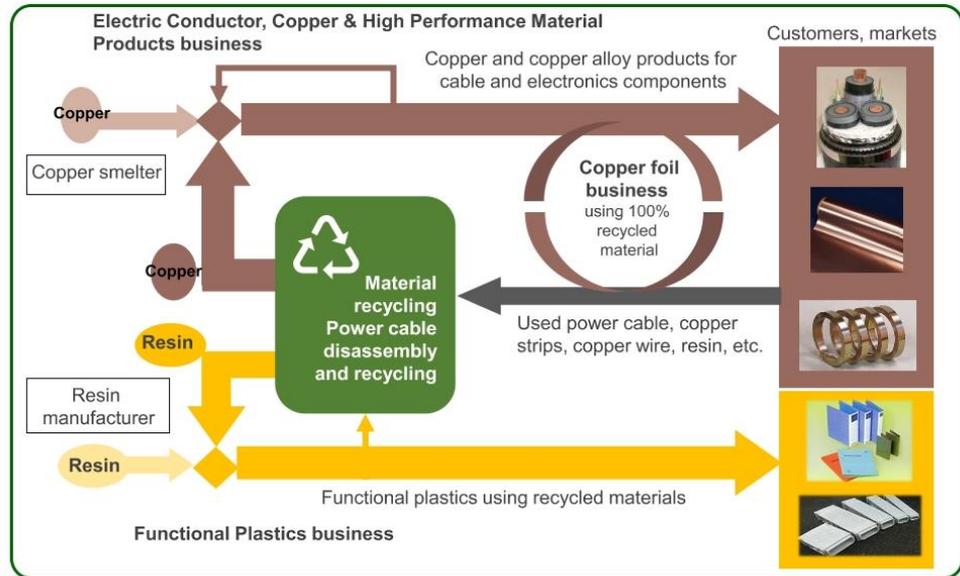
In particular, with regard to climate change, we have set a target GHG emissions reduction rate of 28% in 2025 compared to the FY2017 level, as the first of our measures to eliminate or reduce direct CO<sub>2</sub> emissions.

As for the ratio of renewable energy use to total consumption, we have a hydroelectric power plant in Nikko, and the renewable energy ratio in Japan is 17% in FY2020. However, from a global perspective, it was 8% in 2017, which will be raised to 13%, and we will promote this globally, using hydroelectric power, solar power, wind power, and geothermal power, among others.

4. Strengthen the foundation for ESG management  
**Strengthen the corporate functions that support business growth**



**Initiatives for  
establishing closed-  
loop production**



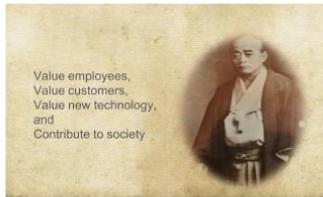
Initiatives for establishing closed-loop production are also important. As represented by closed-loop recycling, how to use the raw materials well is important. We have a very strong advantage in this area.

Conversely, Furukawa Electric does not have a smelting business. Since 1988, when the smelting business stopped producing electrolytic copper through electrolysis, we have been thoroughly developing technologies to use the return scraps in the market or scraps generated in our own processes, which would conventionally be sent to the smelting process, in our own plants.

I don't mean to blow my own trumpet, but I am an engineer for this. In this process, we are making copper and copper alloy products for cable and electronics components by using these market scraps and scrap from our own production processes. In addition, by making good use of scraps that could not be covered by our own processes alone, we have realized a copper foil business using 100% recycled materials. This is a great strength for us, and we intend to expand it further.

At the same time, we use recycled resin and make products using recycled materials. In addition to the initiatives for establishing closed-loop production, we are showing further development in the collaboration in concert with partners through sympathy with the ecosystem, as mentioned earlier. We will proceed this firmly.

**Founder's beliefs**



**Furukawa Electric Group  
 People Vision**

The people of Furukawa Electric Group are our greatest value. We recognize that investment in the development of our people will enable sustainable long-term success of our Group.

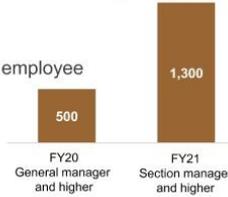
**Create a corporate culture of "following through as a team"**

**Individuals**

New challenges and growth  
 Independent career formation  
 Work satisfaction & engagement



Course participants



**Superiors**

Support the growth of each employee  
 Build good teams  
 Achieve results as a team

**Basic stance**

Secure diversity  
 Cultivate an open, agile, innovative organizational culture



**Employee engagement score**

FY22: Start measuring  
 → FY23: Set targets

**Ratio of female managers**

(FY21: 3.8%)  
 (at Furukawa Electric)

FY25 **7%**

**Ratio of career track hiring among total staff hiring**

(FY21: 37%)  
 (at Furukawa Electric)

FY25 **30%**

This is regarding human capital management and organizational execution abilities.

These are our founder's beliefs: "Value employees, value customers, value new technology, and contribute to society." Based on this, in order to create a corporate culture of "following through as a team," we created our People Vision and "Furukawa Seven," Furukawa Electric's seven principles for supervisors. We expanded the principles to department heads and above first, and in FY2021, to section heads and above, and we are all working together.

If supervisors who have learned this Furukawa Seven take a firm leadership role, it will truly improve wellbeing. In that sense, we have started measuring the employee engagement score this year and set a target in FY2023.

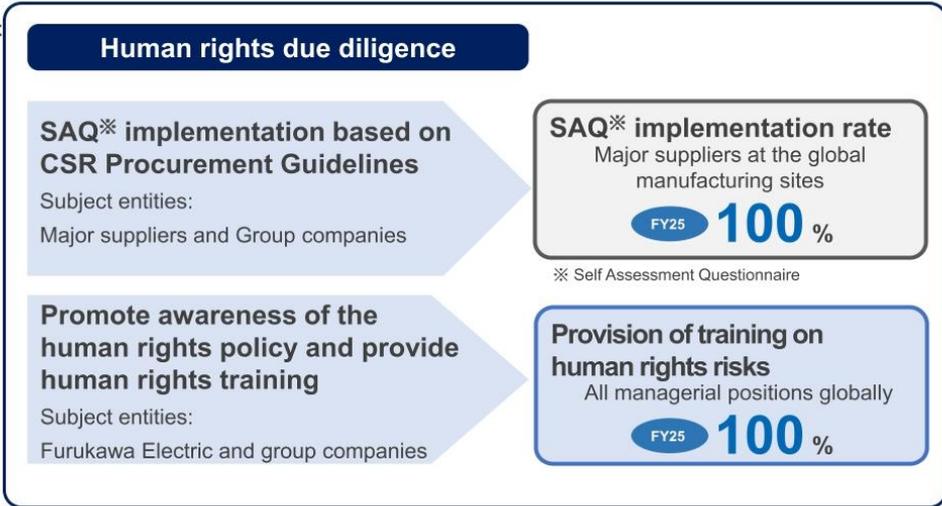
The ratio of female managers is still low. We will improve this to 7% in FY2025. The ratio of career track hiring among total staff hiring is still 37%, but we will continue to work toward our goal of always above 30%.

**Promote in accordance with the UN's Guiding Principles on Business and Human Rights**

Revise the CSR Procurement Guidelines (Ver. 3)



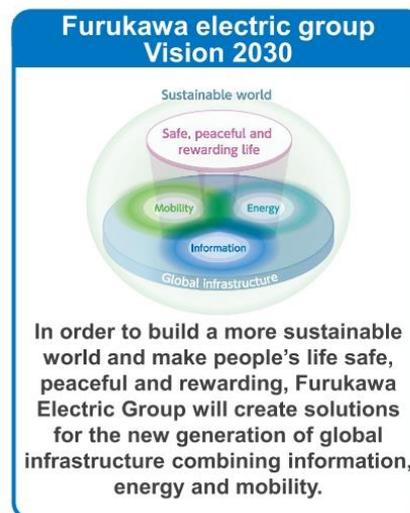
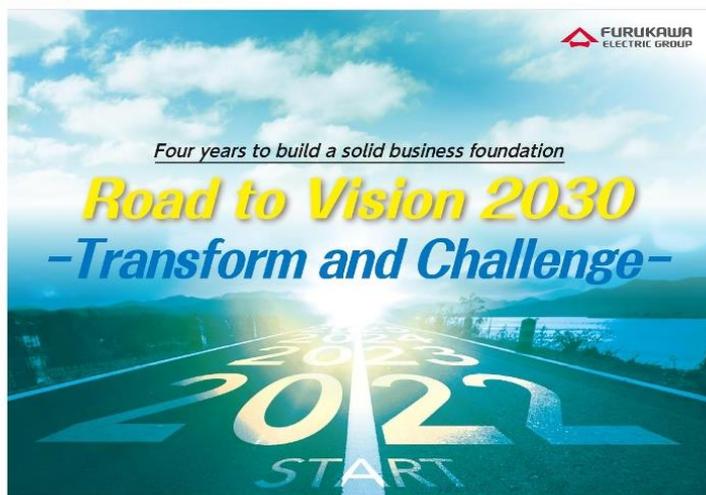
Set a human rights policy



**Human rights & labor practices.**

We will promote in accordance with the UN's Guiding Principles on Business and Human Rights. For human rights due diligence, we have set a target SAQ implementation rate at major suppliers at the global manufacturing sites at 100% in FY2025. As for the provision of training on human rights risks, our target for all managerial positions globally is set at 100% in FY2025.

## Create new value together with customers and solve the social issues



All Rights Reserved, Copyright© FURUKAWA ELECTRIC CO., LTD, 2022

40

We have positioned the 2025 Mid-term Plan as a four-year period in which we will lay a solid foundation to achieve our Vision 2030.

As I mentioned at the beginning, it is precisely because of the Vision 2030 visions that we have been able to move forward to this point without hesitation. We will continue to create new value together with our customers and solve social issues through "Road to Vision 2030 -Transform and Challenge-" by realizing the perspective we have created for 2025.

This concludes my explanation. Thank you for your attention.