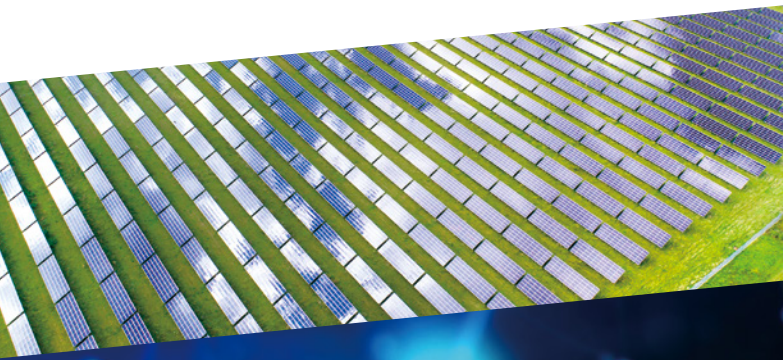




# FURUKAWA ELECTRIC GROUP INTEGRATED REPORT 2021



# Bound to Innovate

Drawing on more than a century of expertise in the development and fabrication of advanced materials, we will contribute to the realization of a sustainable society through continuous technological innovation.

## At a Glance

Founded in

**1884** 

Greenhouse gas emissions (Scope 1+2)

**64.8**  $10^4$  t-CO<sub>2</sub>e 

(FY2020)

\* Combined total amount for Furukawa Electric, 30 domestic and 58 overseas group companies

Consolidated net sales

**811.6** billion yen 

(Fiscal year ended March 31, 2021)

Renewable energy ratio (Japan and overseas)

**10.3**% 

(FY2020)

\* Combined total amount for Furukawa Electric, 30 domestic and 58 overseas group companies

Number of Group employees

**48,449** 

(As of March 31, 2021)

Number of Group companies

**123** 

(As of March 31, 2021)

\* Combined total for Furukawa Electric, 109 consolidated subsidiaries and 13 equity-method affiliates







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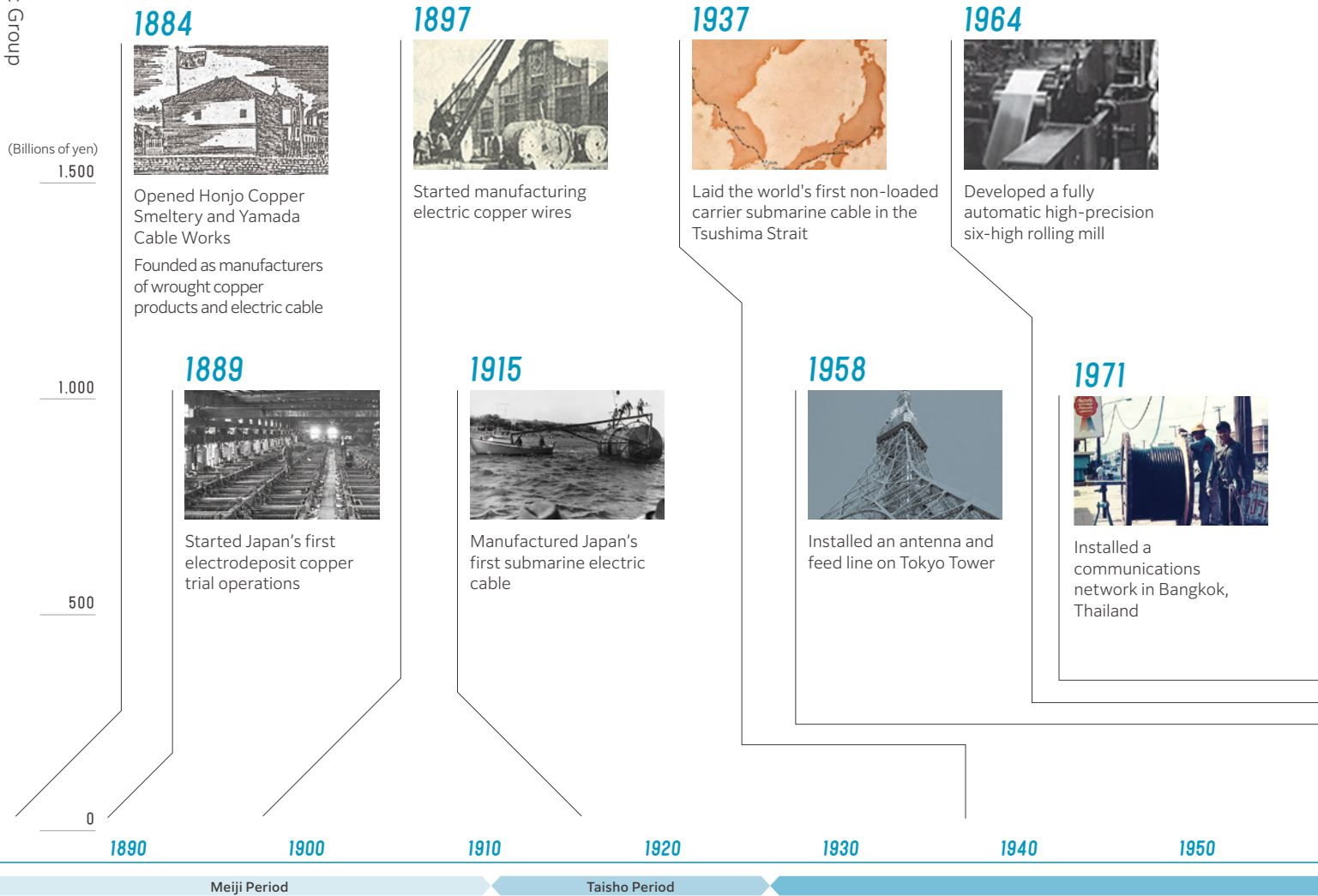
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# Innovation History of Furukawa Electric Group

## Furukawa Electric Group / HISTORY

Drawing on more than a century of expertise in the development and fabrication of advanced materials, Furukawa Electric Group has contributed to the realization of a sustainable society through continuous technological innovation since its foundation in 1884. Furukawa Electric Group has supported the establishment of Japan's social infrastructure and contributed to the global sustainable development for 137 years.



### 1884-

#### Foundation & Dawning of a New Era

The origins of our company can be traced back to 1884, when Ichibei Furukawa first smelted copper in Honjo, Tokyo and Yamada Cable Works began manufacturing electrical cables in Takashima-cho, Yokohama.

### 1900's-

#### Helping to Establish Japan's Social Infrastructure

Catering to demand for electricity and communications in the then undeveloped Japan, Furukawa Electric expanded production to include various rubber and cotton-covered wires, and in 1915 manufactured the nation's first submarine electric cable. The company continued to support the establishment of Japan's social infrastructure with its global quality technical capacity, such as by installing an antenna on Tokyo Tower, the country's largest radio tower at the time.



1974



Established company in Brazil manufacturing and selling aluminum power cables



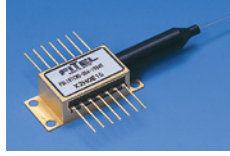
World's first successful field trial of optical fiber cable

1982



Completed large-scale power transmission line installation in Iran

2000



Contributed to the establishment of high-capacity communications based on wavelength multiplexing technology (Mass production of 1480 nm pump laser diode modules)

2001



Contributed to the construction of a global network by acquiring Lucent Technologies' optical fiber division (OFS)

2003



Received the Golden Hadron Award from CERN for superconducting wire materials

2012



Participated in the Floating Offshore Wind Farm Demonstration Project

2011



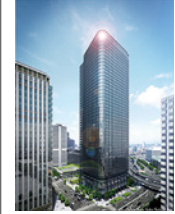
Purchased SuperPower Inc., a high-temperature superconducting materials manufacturer in the US.

2018



Established the research center in the Silicon Valley

2021



Relocate the head office to "TOKYO TORCH Tokiwabashi Tower"

### Trends in the net sales

■ Non-Consolidated ■ Consolidated

1960 1970 1980 1990 2000 2010 2020 (FY)

Showa Period

Heisei Period

Reiwa Period

## 1960's-

### Expanding Overseas

From this period, Furukawa Electric launched its full-scale efforts to enter the global market with the hope of spreading its technical strength around the world. While building up a track record in the Middle East, Southeast Asia, and elsewhere, it established manufacturing plants from Southeast Asia all the way to Brazil, laying the foundations for today's globalization.

## 2000's-

### Speeding up Global Development

The expansion of free trade areas after the end of the Cold War accelerated the globalization of the world economy, which greatly sped up Furukawa Electric's global development too. In 2001, it bought out the optical fiber solution business of Lucent Technologies in the US, jumping straight into the group of global leaders in the optical fiber market.

Global attention is on Furukawa Electric's capacity for technological development, such as its superconducting wire materials used in the European LHC particle accelerator project, the largest in the world.

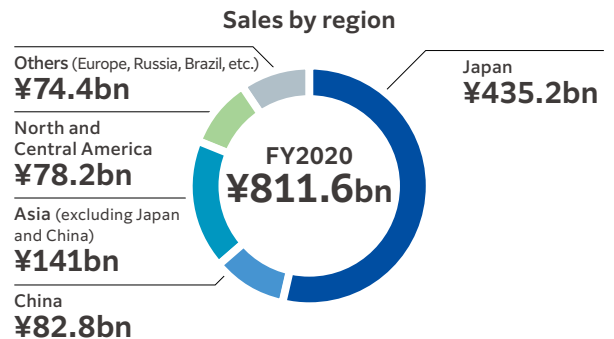
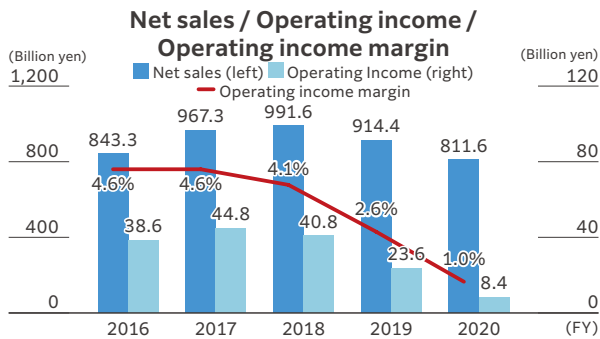
# Furukawa Electric Group at Present

## Furukawa Electric Group / At a Glance

### Overview of Performance in Fiscal 2020

In fiscal 2020, in response to the global outbreak of novel coronavirus infections (COVID-19) which significantly affected various parts of the world, and the rapidly deteriorating economic environment, Furukawa Electric Group established the Emergency Response Team to minimize the COVID-19 impact and implemented various measures, in addition to promoting measures for the Medium-term Management Plan, Furukawa G Plan 2020. However, overall sales were sluggish, including the contribution by the Communications Solutions

business. The overall Group sales decreased from the previous year partly due to the sale of the copper tube business and the reorganization of a part of the wire business (both businesses fell out of the scope of consolidation.) Profit also decreased from the previous year due to a significant impact from the stagnant global economic activities caused by COVID-19, in spite of some positive impact from efforts for cost reduction and cost control, which were mainly spearheaded by the Emergency Management Measures Team.



### Overview of the Furukawa G Plan 2020

In the Medium-term Management Plan which started in fiscal 2016, the priority measures were 1) to strengthen and transform our businesses, particularly in the infrastructure (information and communications, energy infrastructure) and automotive sectors that were positioned as focus areas; 2) to expand sales in the global market; and

3) to accelerate the creation of new businesses.

We made some progress, such as improving the financial situation, but there remained issues with regard to assuring business earnings capability. In addition, we have formulated Furukawa Electric Group Vision 2030 and started full-scale efforts for ESG management.

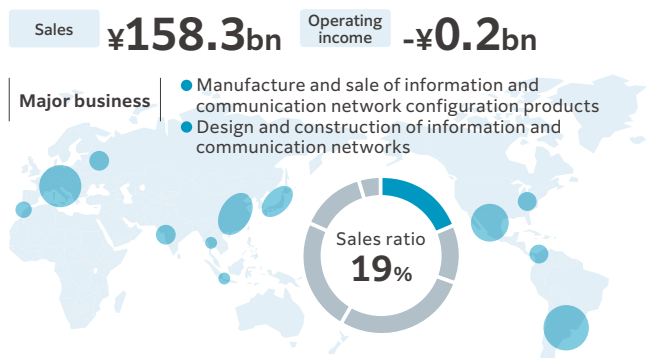
G Plan 2020 priority measures	Results	Issues/ Future actions
(1) Strengthen and transform the businesses	<ul style="list-style-type: none"> <li>Revised the business portfolio</li> <li>KPI management using return on operating assets</li> <li>Established the activities of the Transformation Division (Target businesses: Global Fiber &amp; Cable, Energy Infrastructure, Copper &amp; High Performance Material Products)</li> </ul>	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Insufficient expansion of the key businesses (Communications Solutions)</li> </ul> <p><b>Future actions</b></p> <ul style="list-style-type: none"> <li>Response to low-margin businesses &amp; sites (Continued)</li> <li>Expand the Transformation Division activities within the group</li> </ul>
(2) Expand sales in the global market	<ul style="list-style-type: none"> <li>Expanded sales and enhanced the manufacturing sites</li> <li>Created a foothold for expanding the sales area through the establishment of marketing regional headquarters (in Southeast Asia, China)</li> </ul>	<p><b>Issues</b></p> <ul style="list-style-type: none"> <li>Insufficient net sales growth overseas (FY2020 target: JPY 550 billion) (FY2019: JPY 418.8 billion, FY2020: JPY 376.4 billion)</li> </ul> <p><b>Future actions</b></p> <ul style="list-style-type: none"> <li>Expand the optical fiber and cable business</li> </ul>
(3) Accelerate the creation of new businesses	<ul style="list-style-type: none"> <li>Strengthened the frameworks for co-creation (Opened FunLab®, Established SVIL in the US)</li> <li>Strengthened the creation of new businesses (Established Future Infrastructure Technology Center, Digital Innovation Center)</li> <li>Fostered new businesses through co-creation and sowed the seeds of new businesses (Industrial lasers, bipolar storage batteries and metal encapsulated zeolite™)</li> </ul>	<p><b>Future actions</b></p> <ul style="list-style-type: none"> <li>Clarify the key domains</li> </ul> <p>Going forward, the Social Design &amp; New Business Development Department (newly established in April 2021) will be responsible for execution, and efforts will be made to accelerate the creation of products and businesses under this new organizational framework</p>



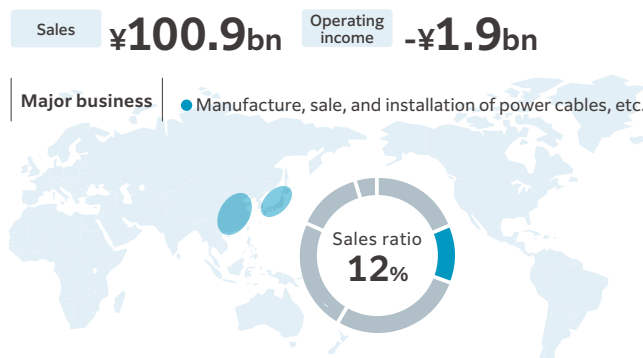
## Business Overview by Segment for Fiscal 2020

### Infrastructure

#### Communications Solutions

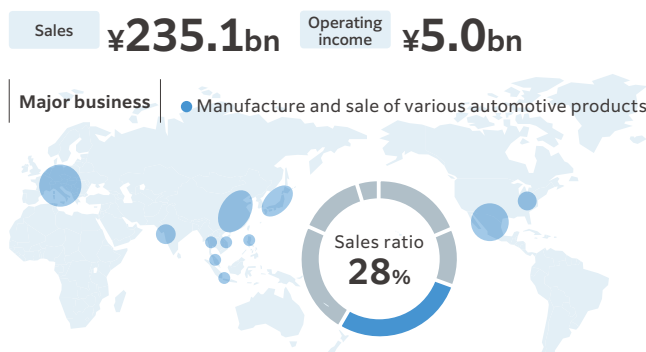


#### Energy Infrastructure

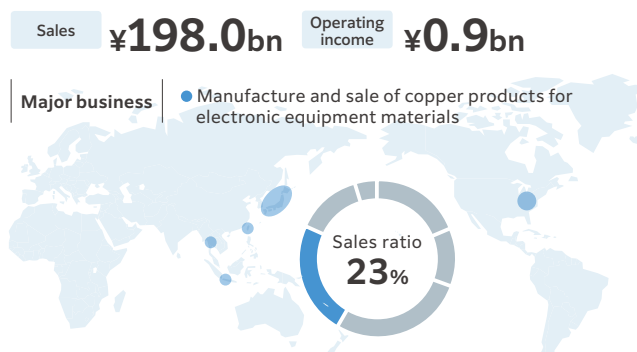


### Electronics & Automotive Systems

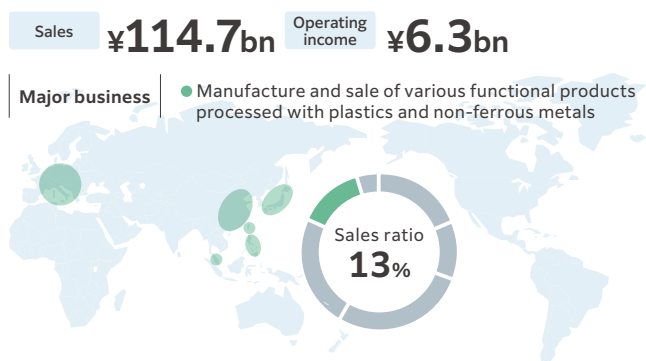
#### Automotive Products & Batteries



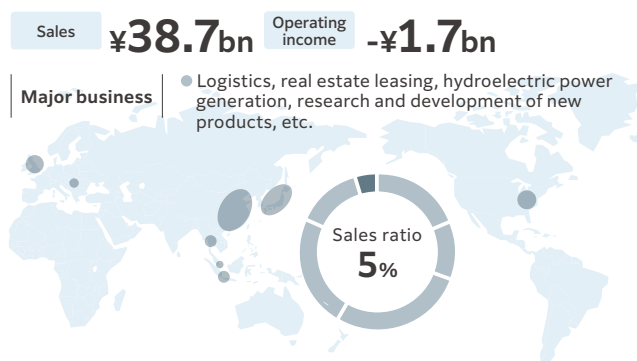
#### Electronics Component Materials



### Functional Products



### Services and Development, etc.



## FY2021 Management Policy

With respect to the next medium-term management plan which was supposed to start from FY2021, since the management environment surrounding Furukawa Electric Group significantly changed due to the COVID-19 pandemic, we suspended the formulation of the plan, and postponed the start of the plan until next year.

In FY2021, we will become a stronger company and make definite preparations for the 2025 medium-term management plan. In addition, we will implement mainly the following initiatives.

#### Transform the businesses

Strengthen the key businesses and continue to revise the business portfolio through responses to the low-margin and non-core businesses

#### Establish and foster new businesses

Create environment-friendly businesses and businesses that solve social issues

#### Strengthen management focus on capital efficiency

Evolve the "return on operating assets" used as an indicator in the 2020 medium-term management plan, and shift to target management with a focus on capital efficiency and greater awareness of "cost of capital"



## Review of Fiscal 2020 and Positioning of Fiscal 2021

In fiscal 2020, the COVID-19 pandemic depressed economic activities, which affected the overall business of Furukawa Electric Group and we could not achieve management goals set forth in the Medium-term Management Plan. Looking back at the status of our Group, we recognized that we did not have sufficient strengths, including autonomous improvement capabilities, break-through capabilities to solve problems, and overall management capabilities.

We then thought that in fiscal 2021 it is most important to build up these insufficient strengths, and resolutely secure a solid foundation that would enable us to prevail in the current difficult business environment. We have therefore decided to postpone the formulation of the next medium-term management plan, with the target year 2025, by one year, and to designate fiscal 2021 as "the zero year of the 2025 Medium-term Plan" for overcoming the deficiencies mentioned, and becoming a powerful company. Three specific measures for fiscal 2021 are 1) to transform business, 2) to establish and foster new businesses, and 3) to strengthen management focus on capital efficiency.

Basic to these three measures is the strengthening and

revision of the business portfolio, which is based on the long-term Furukawa Electric Group Vision 2030. In order to build up the needed strengths toward the achievement of this Vision 2030, we have decided to continue planting seeds toward the next harvest, namely, making R&D investments and creating new businesses, even in the challenging environment now faced.

I now recognize that some of seeds we had sowed are beginning to sprout. I am also pleased to see that many of our employees are committed to completing what they have been assigned to do, with a strong determination.

### FY2021 Management Policy

**In FY2021, we will become a stronger company and make definite preparations for the 2025 medium-term management plan. In addition, we will implement mainly the following initiatives.**

#### **Transform the businesses**

Strengthen the key businesses and continue to revise the business portfolio through responses to the low-margin and non-core businesses


#### **Establish and foster new businesses**

Create environment-friendly businesses and businesses that solve social issues

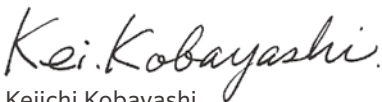
#### **Strengthen management focus on capital efficiency**

Evolve the "return on operating assets" used as an indicator in the 2020 medium-term management plan, and shift to target management with a focus on capital efficiency and greater awareness of "cost of capital"





# Positioning ESG as central to overall management, we will transform ourselves into a corporate group that is recognized by our stakeholders not only as promising but also as reliable.



Keiichi Kobayashi

President and Representative Director  
Furukawa Electric Co., Ltd.

## Efforts Toward Achieving the Vision 2030

We have identified the “creation of social issue-solving businesses” as a part of materiality for exploiting revenue opportunities toward achieving Vision 2030. In this aspect, we are not trying to address any specific issues that we can see. Rather, we will focus on smart use of our Group’s products and technologies to support solving social issues or to be directly used for solving social issues, and we will select and concentrate on issues that should be addressed by our Group. This will be in line with our important factor of “protecting the foundation and wellness of people and society, and supporting growth,” which resonates with our Corporate Philosophy: “Drawing on more than a century of expertise in the development and fabrication of advanced materials, we will contribute to the realization of a sustainable society through continuous technological innovation.”

### Three Initiatives to Achieve Carbon Neutrality

While there are many social issues before us, one of the biggest challenges for our Group is the realization of a decarbonized society, namely, the initiatives aimed at carbon neutrality. As a concrete example of the “creation of social issue-solving businesses” identified as

materiality for revenue opportunities, we have listed the “creation of environment-friendly businesses” that contribute to the realization of a decarbonized and recycling-oriented society. This also resonates with the “development of business activities that consider climate change,” which is included in materiality for risks. Concerning this risk materiality, we are undertaking three initiatives: 1) eliminate or reduce direct CO<sub>2</sub> emissions; 2) eliminate or reduce CO<sub>2</sub> emissions by customers and society in general, and 3) capture or transform CO<sub>2</sub> that is emitted.

With regard to the first initiative of our own internal efforts, we believe that our conventional efforts, such as energy conservation (i.e., improvement of yield rates), fuel conversion, improvement of recycling rate, and the use of renewable energy, are the main measures toward achieving carbon neutrality. We will continue to strengthen use of renewable energy, although our usage ratio of renewable energy is already at a high level among Japanese companies. Concerning the second initiative involving our customers and society, we will continue to contribute with our technologies and products, such as power cables that transmit renewable

energy, including energy generated offshore by wind power, and lightweight aluminum wire harnesses that improve the fuel efficiency of automobiles. We will also focus on the development of bipolar storage batteries as key devices for efficient use of renewable energy. In the third initiatives, for capturing or transforming emitted CO<sub>2</sub>, we are developing technologies such as the technology for producing LP gas from livestock excreta by use of metal encapsulated zeolite™. We consider these areas as important revenue opportunities and will continue to respond firmly.

### Furukawa Electric Group's Basic Policy for Carbon Neutrality

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

### Formulated Environmental Vision 2050 and Efforts for Environment-Conscious Products

Environmental efforts are not limited to decarbonization and carbon neutrality. In March

2021, we have announced Furukawa Electric Group Environmental Vision 2050 with the aim of contributing to the realization of a sustainable society throughout the value chain by the provision of environmentally-friendly products and services and recycling-oriented production activities. In addition to the "Contribution to a decarbonated society" that I mentioned earlier, this vision is concerned with environmental response from the perspective of "Contribution to a recycling society of water and other resources" and "Contribution to a natural symbiotic society."

A concrete example of environmentally-friendly products and services is the efforts of environment-conscious products. Environment-conscious products are defined as products and services that are comprehensively evaluated for their entire product lifecycle from being made to being disposed, thereby contributing to a reduction in environmental impact or having a positive environmental impact. For example, in the case of a conduit route for the installation of cables, we use our technology to recycle waste materials into products. We will continue to focus on our efforts, which contribute not only to decarbonization but also to a recycling-based society.





## Furukawa Electric Group Environmental Vision 2050

Contribute to the realization of a sustainable society throughout the value chain through the provision of environmentally friendly products and services and recycling-oriented production activities

Contribute to society in harmony with nature

Minimize the impact on ecosystems through value chain management that includes raw materials.



Contribute to a carbon-free society

Aim to reduce greenhouse gas emissions throughout the value chain.

Greenhouse gas emissions from business activities (Scope 1 & 2): Challenge target of zero emissions in 2050



Contribute to realizing a water & resources recycling-based society

Minimize water usage, and promote the use of recycled materials, including waste plastic, throughout the value chain.

Scope 1: Direct emissions from the Company's plants and offices Scope 2: Indirect emissions from the electrical power and heat purchased by the Company

## Investments to Support Business Transformation

In order for Furukawa Electric Group to contribute to the sustainable society as I have discussed so far, our Group's business need to be sustainable. During the 2020 Medium-term Management Plan, the "return on operating assets" has been used as one of the indicators and we have carried out various measures including structural reform and reorganization, strengthening of core businesses, and sale of low-margin businesses. Since 2019, when we started to re-acquire strengths, we have adopted a fairly tight investment discipline. These actions have begun to bring out some outcome, and we are now focusing on how to "harvest" the seeds that had been sown.

In the meantime, the return on operating assets alone is not sufficient to further develop the entire Group's management capabilities. We believe that we need indicators that take into account the relationship

with cost of capital and more strongly motivate portfolio changes. We have therefore decided to use ROIC (Return on Invested Capital) as a new indicator and FVA (Furukawa Value Added = Value added to invested capital) as an internal management indicator for the forthcoming 2025 Medium-term Management Plan, with the aim to shift to management with more awareness of capital costs and corporate value improvement than ever before.

As we are a company, we have to be evaluated by our shareholders. To do so, it is important that our own sustainability is secured. We also believe that we must be recognized by our stakeholders not only as promising but also as reliable. For this purpose, we believe that our ROIC must always exceed our WACC (Weighted Average Cost of Capital). We will therefore further promote management with greater awareness of capital costs and corporate value.

### Major Actions to Revise the Business Portfolio

**FY2018** Sold all of holding shares of a subsidiary FCM Co., Ltd.\*

\*Listed on the JASDAQ market at that time.

**FY2019** Reorganized the sales and distribution business of general-purpose power cables for the construction and wholesaler markets

Established a joint venture company with Showa Densen Holdings Co., Ltd.

**FY2020** Sold the copper tube business

Sold the business to a special purpose company of Japan Industrial Partners, Inc.

**FY2021** Reorganized part of the wire business

Established a joint venture with the Superior Essex Group

**FY2021** Concluded an agreement to sell a portion of the shares of Furukawa Logistics Co., Ltd.

Concluded a transfer agreement with SBS Holdings, Inc.

## Efforts to Strengthen the Foundation of ESG management

While ESG is central to our management in the context of achieving Vision 2030 and continuing to transform ourselves into a sustainable corporate group, we may experience a degree of unexpected unsmoothness during the transformation process. In the hope of formulating principles comparable to those in the Constitution, which will serve as the basis for judgment at such times, we have adopted a basic policy on sustainability this year. It describes the sustainable growth of the Group and its contribution to the achievement of the SDGs. In addition, a Sustainability Committee has been established to further enhance the quality and speed of sustainability discussions and implementation.

Among our efforts that placed ESG management in a position of central importance, I have already explained about our E (Environment) efforts. Concerning the response in June 2021, to climate change in light of the revised Corporate Governance Code we are working toward coping with the framework of the Task Force on Climate-related Financial Disclosure (TCFD). Our Group was selected as a TCFD subsidy project by the Ministry of the Environment in 2019 and carried out scenario analysis for the optical fiber cable and power cable businesses. In 2020 we also conducted scenario analysis for the automotive parts business. We will continue to expand the scope of such studies and conduct deeper analysis.

In fiscal 2020, we were selected as a CDP Climate Change A-listed company for the first time, based on the evaluation of our goal-setting and actions in efforts to address climate change, and transparency.

Regarding S (society), we have identified the strengthening of human resources and organizational execution as materiality, and started these efforts before the COVID-19 breakdown. The COVID-19 pandemic has made these efforts even more important and we are agile in making progress. In particular, we have formulated "Furukawa Seven" – seven principles for mindset and actions of leaders in the workplace, so that supervisors become trusted by their subordinates. Another important theme that derives from the current world situation in the field of S (society) is the response to human rights risks in the supply chain. We are committed to steadily implementing human rights due diligence (DD) in order to reduce human rights risks by checking the entire supply chain.

To achieve Vision 2030 and move on to the next step, it is critically important that all employees work vigorously and feel happy to work at our Group. In July 2021 we moved to a new head office. We had entrusted our young employees for its design and layout and they have created a wonderful head office. I am looking forward to the value of various ideas that are created from dialogues in the pleasant workplaces.

Finally, concerning G (Governance), we have strived hard to improve the independence of the Board of Directors and the Audit & Supervisory Board for some years. Based on the idea to leave corporate execution to executive officers, Furukawa Electric's Chairman is a non-executive director without the representative rights, and is dedicated to oversight and works as a neutral chairperson of the Board of

### ESG in General

April 2019	Established Corporate Sustainability Office
May 2019	Formulated Furukawa Electric Group, Vision 2030
February 2020	Signed United Nations Global Compact
August 2021	Established Furukawa Electric Group Basic Policy on Sustainability and Furukawa Electric Group Sustainability Committee

### Environment

March 2019	Environmental targets 2030 set
August 2019	Science Based Targets (SBT) certified
January 2020	Expressed support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
December 2020	Selected as CDP Climate Change A-listed company for the first time
March 2021	Formulated Furukawa Electric Group Environmental Vision 2050

### Social

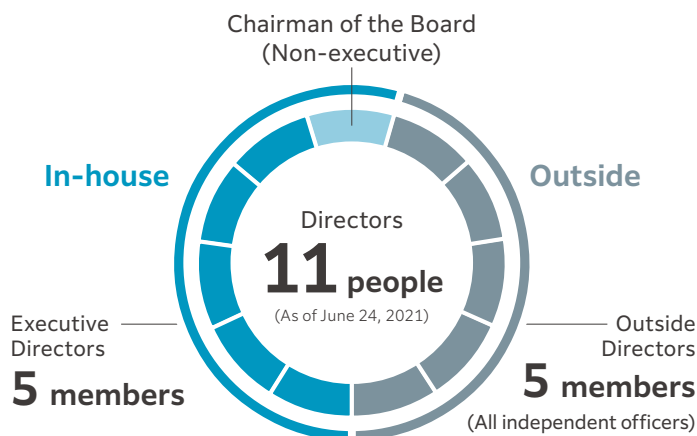
November 2018	Formulated Furukawa Electric Group Vision for Our People
January 2020	Formulated Furukawa Electric Group Human Rights Policy
July 2021	Moved head office to Tokyo Torch Tokiwabashi Tower

### Governance

June 2019	Strengthened independence of outside directors, enhanced board diversity (All five outside directors are independent and one female outside director appointed)
June 2020	Diversity of outside audit & supervisory board members (appointed one female audit & supervisory board member)
January 2021	Revised Furukawa Electric Group CSR Procurement Guidelines (3rd edition)
June 2021	Reduced one internal director



Directors. Moreover, the Board of Directors has become more independent as we reduced by one our in-house directors in 2021 and the Board is represented equally by five in-house directors and five outside directors, besides the Chairman.



## Management Aspirations to Achieve Vision 2030

We have formulated Group Vision 2030 with strong determination. In order to contribute to the achievement of the SDGs at the same time as this Vision 2030, we know that group-wide concerted efforts on materiality are critically important. The next medium-term management plan, for 2025, is to be announced in 2022 and will be the core of the initiatives.

Through the medium-term plan for 2025, we will strive to transform ourselves to be recognized by our stakeholders not only as promising but also as reliable. Positioning ESG in the center of our management, we will continue to transform ourselves into a sustainable corporate group. We appreciate your continued support for Furukawa Electric Group.





## Review of FY2020 Results

In fiscal 2020, we were significantly affected by the economic stagnation caused by the COVID-19 pandemic, and decreased sales and profit compared with the previous fiscal year.

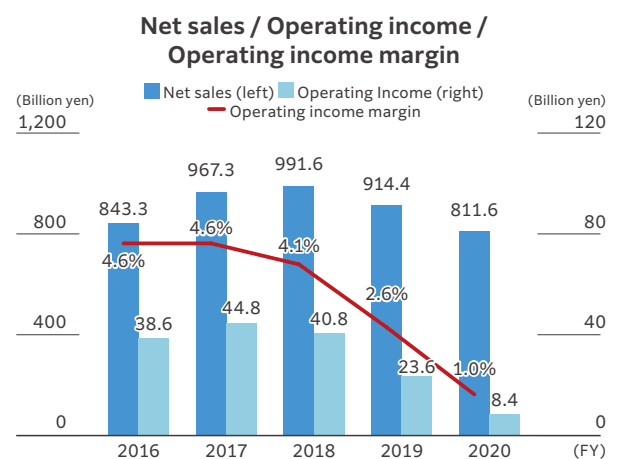
As a part of our response to the severe economic environment, we established the Emergency Response Team, and that led us to achieve a little less than 12 billion yen in annual cost reductions and cost containment. We recognize that the combination of these efforts and our Group transformation efforts accumulated from the past has enabled us to reduce the breakeven point by about 5% from a level exceeding 800 billion yen to a level below that amount.

In the process of reducing expenses, we assigned an order of priority to capital investments and R&D expenses, rather than simply restraining them, and tried to balance offensive measures and defensive measures. This was quite difficult.

In order to achieve the long-term Furukawa Electric Group Vision 2030, we must also steadily implement investments for the future. Therefore, from the viewpoint of investing what is needed at the time it is needed, we have again thoroughly scrutinized each project and have reduced capital

investment by about 15% from the initial plan for the fiscal year.

In addition, R&D projects and themes have been reexamined and ranked in priority, while we have improved efficiency and other operating parameters by smart adoption of remote work and use of the worldwide web, all the while keeping in mind what we anticipate for the future.





# We will increase our cash generation capability and improve corporate value by generating a steady return on growth investments and improving asset efficiency.

Akihiro Fukunaga

Director and Corporate Vice President,  
General Manager of the Finance & Global Management Division

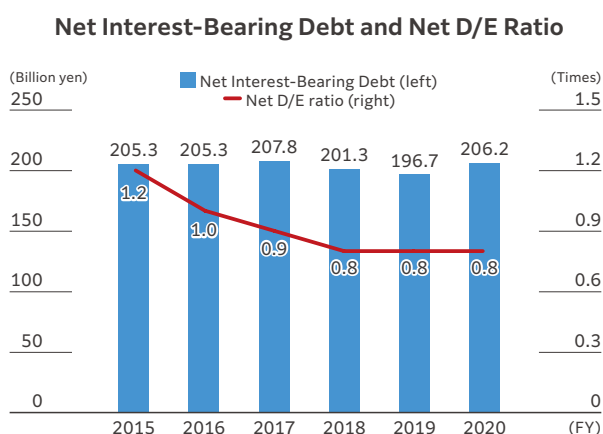
## Establishing a Stable Financial Base

Despite the severe business environment that was partly due to COVID-19 pandemic, the Rating and Investment Information, Inc. (R&I) upgraded Furukawa Electric to “A-” in March 2021 for the first time in the 19 years since it was downgraded to “BBB+” in June 2002.

We believe that this upgrade has been a result of the evaluation not only of the efforts of the past year, but also for many years of our persistent efforts to improve the financial structure, particularly by cash generation and the improvement of interest-bearing debt and the net D/E ratio, which had been a major challenge.

During the latter three years of the 2020 Mid-term Management Plan (fiscal 2018 to fiscal 2020), we generated free cash flows of 21.9 billion yen, which far exceeded our target of 10-15 billion yen. This resulted from the promotion of future investments (i.e., capital investment), and the measures taken in the past few years from the viewpoint of improving capital efficiency (i.e., sale of policy-holding shares and of real estate assets which were not used for business operation). I believe that our commitment to cash flow was fully understood by the credit rating agency.

While our net D/E ratio as of March 31, 2021 improved to a level below 0.8, we recognize that this level is not yet sufficient to demonstrate financial stability. In addition to raising our equity capital ratio, we will further strengthen our financial position by keeping interest-bearing debt to cash flow-generating capacity, or ratio of interest-bearing debt to EBITDA, to a level less than the present three times.



## Aiming to Strengthen Management with a Focus on Capital Efficiency

In the 2020 Mid-term Management Plan, we strengthened the key businesses and revised the business portfolio through changes related to the low-margin and non-core businesses. During this process, we used the “return on operating assets” as a management indicator for low-margin business. This indicator is the ratio of operating income to operating assets (inventories + tangible and intangible fixed assets). Use of this approach has enabled us to improve working capital by optimizing inventories.

One shortcoming of this “return on operating assets,” especially from the viewpoint of the cash conversion cycle, is that use of this indicator can lead to a focus only on operating income and business assets and to not cover all items of the balance sheet, such as working capital or investments.

In addition, as we had uniformly set the target of 10% for return on operating assets for all businesses, we could not make our people become sufficiently aware of cost of capital and that made it difficult to appropriately review the business portfolio in retrospect.

Currently, we are developing the next medium-term management plan, for which we are

considering to shift the management target to focus on capital efficiency with greater awareness of cost of capital, and to introduce ROIC (Return on Invested Capital) and FVA (Furukawa Value Added = Value added to invested capital) as new management indicators in order to speed up business transformation.

With the introduction of the new indicators, we hope to further strengthen the mindset of our people to pay attention to not only operating income but also the final net income, that is, the generation of real cash.

This is anticipated to lead us to resolve the long-standing problem of canceling operating income and ordinary income, that have been properly accumulated, by extraordinary losses.

In addition, since some of our businesses generate stable profits, while others are highly volatile, we need to consider the appropriate cost of capital separately for each business.

Addition of ESG elements is also being considered.

We will set up an appropriate cost of capital target for each business, and will actively review our business portfolio based on the progress achieved.

## Strengthening Financial Management to Sustain Business Growth

With the aim of business transformation, we also emphasize the establishment and fostering of new businesses, in addition to reviewing low-margin, non-core businesses.

For this purpose, it is important to continue to steadily proceed with the sale of those policy-holding shares and real estate assets which we have determined as being underutilized or generating insufficient returns, and to use the proceeds for growth investments for new businesses.

There is also an operating issue in that the Communications Solutions Business, which is one of our core businesses, has not generated sufficient profit for the past few years. There can be no step forward unless our focused businesses generate profit. We will therefore address the present issues and then move to the next step of fully focusing on new businesses.

Concerning growth through the creation of businesses that solve social issues, as stated for achieving Vision 2030, some upfront investment will be needed. We also need to be more aware of the investment needed for developing business activities that take into account climate change. I think I will be required more than ever before to

make agile judgments as CFO, while keeping in mind the importance of an adequate balance between growth investment and investment discipline.

While we need to keep planting seeds for promising businesses, we have to continuously generate returns that justify investments. This is indispensable for business growth. With our stronger awareness of the cost of capital, we are determined to achieve both “the improvement of our core businesses and the creation of new business.”

### Investment Committee\*

<b>Committee chair:</b>	General Manager, Finance & Global Management Division
<b>Committee members:</b>	General managers, etc.
<b>Organizers:</b>	Finance & Accounting Dept. and Corporate Management Dept.

\* An advisory body concerned with improving the probability of achieving plans by enhancing pre-examination and post-assessment of potential risks, important assumptions, priority measures, investment recovery calculations, etc., with respect to decision-making of investments.

## As CFO of Furukawa Electric Group

While we have made some progress in improving financial indicators, our priority task for fiscal 2021 is to achieve our targets in operating income, net income, and the financial indicators. Although the external environment has been rapidly changing and events that were out of control have been occurring, we need to generate results by our own efforts even under these circumstances. We will certainly take immediate measures and actions to mitigate the impacts, rather than passively succumb to adverse or unpredictable changes in the external environment. I believe that we need to take external changes as our own issues and take action without blaming the environment. I further think that it is my challenge to share my strong determination with

others in the Company, change their mindset, and inspire them to take actions.

My persistence on cash creation derives from my experience as CFO at OFS Fitel in the United States when the country was still striving to emerge from the global financial crisis of 2008. I went to work telling myself that “WE have to achieve results. WE will make money, and then invest, repay debts, and produce business growth. WE’ve got to do it.” I continue to hold this persistence in mind even as CFO of Furukawa Electric Group, and aim to continue to improve capital efficiency, increase cash generation capability, and increase corporate value for achieving Vision 2030.





# Furukawa Electric Group's Values

## Furukawa Electric Group / PHILOSOPHY

### The Founder's Thoughts

Mr. Ichibei Furukawa, the founder of Furukawa Group, said, based on his wish to "brighten Japan," that "we must

**value employees,  
value customers,  
value new technology, and  
contribute to society."**

Since its foundation in 1884, Furukawa Electric has inherited these words in its DNA and has grown.

We are determined to receive and pass on these three valuable things and contribute to the realization of a sustainable society as members of society who forge the future.

### Furukawa Electric Group Philosophy

#### Corporate Philosophy

Drawing on more than a century of expertise in the development and fabrication of advanced materials, we will contribute to the realization of a sustainable society through continuous technological innovation.

#### Management Philosophy

With an eye to the future, the Furukawa Electric Group management team pledges to:

- Live up to the expectations and trust invested in us by society, with fairness and integrity.
- Apply the sum total of our expertise to satisfy our customers and grow with them.
- Continuously strive to achieve world-class technological innovation, and transform ourselves in every area of endeavor.
- Nurture human resources at every level, so that we can become a more diverse and creative organization.

#### Core Value



#### Furukawa Electric Group, Vision 2030

In order to build a sustainable world and make people's life safe, peaceful and rewarding, Furukawa Electric Group will create solutions for the new generation of global infrastructure combining information, energy and mobility.



<p><b>1. Human rights</b></p> <p>1-1. Respect the human rights/ Prohibit discrimination                  1-2. Prohibit harassment                  1-3. Prohibit child labor and forced labor                  1-4. Respect the basic rights of employees                  1-5. Promotion of diversity and inclusion (securing and acceptance of diversity)</p>	<p><b>6. Fair competition</b></p> <p>6-1. Prohibit impediment to free competition                  6-2. Prohibit abuse of superior positions</p>
<p><b>2. Labor practices</b></p> <p>2-1. Ensure appropriate working conditions and working hours                  2-2. Ensure safe, hygienic, and motivated working environments                  2-3. Creation of rewarding workplaces</p>	<p><b>7. Relations with customers, partners, and society</b></p> <p>7-1. Prohibit bribes                  7-2. Prohibit excessive gifts and entertainment                  7-3. Have fair relations with politics                  7-4. Cut off all relations with antisocial forces                  7-5. Request legal compliance to partners                  7-6. Contribute to society</p>
<p><b>3. Environment</b></p> <p>3-1. Comply with environmental laws and regulations                  3-2. Ensure environmental preservation                  3-3. Contribution to society coexisting with nature</p>	<p><b>8. Management and preservation of Company assets</b></p> <p>8-1. Prohibit the improper use of Company assets                  8-2. Protect intellectual property                  8-3. Manage confidential information                  8-4. Protect personal data                  8-5. Use information system appropriately</p>
<p><b>4. Products and services</b></p> <p>4-1. Ensure products safety and reliability                  4-2. Provide high-quality products and services                  4-3. Understanding and observance of rules concerning quality</p>	<p><b>9. Disclosure of information</b></p> <p>9-1. Disclose information in a timely manner                  9-2. Achieve reliable financial reporting                  9-3. Securing of the appropriateness of tax declarations                  9-4. Prohibit insider trading</p>
<p><b>5. International businesses and transactions</b></p> <p>5-1. Comply with laws and respect international norms of behavior                  5-2. Observe laws and regulations governing imports and exports</p>	<p><b>10. Duties and obligations of senior management and employees</b></p> <p>10-1. Act in accordance with legal and ethical compliance                  10-2. Fulfill the responsibilities of senior management                  10-3. Prohibit conflicting actions with the interests of the company                  10-4. Report illegal and improper conducts                  10-5. Cooperate with company investigations and prevent recurrence                  10-6. Crisis management and business continuity plans</p>

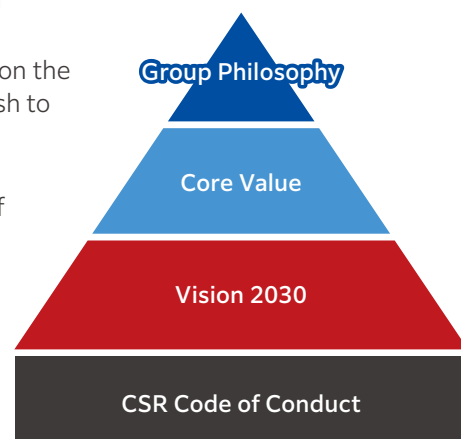
**The Founder's Thoughts** are the wishes of the founder Mr. Ichibei Furukawa to contribute to society as members of society who forge the future, based on the "three valuable things" that have been inherited in its DNA from the birth of the Group in 1884.

**Furukawa Electric Group Philosophy** is a clear statement of what we have aimed to become from the time the firm was created to the present and will continue to be the basic to the Group in the future, through Corporate Philosophy and Management Philosophy.

For the achievement of the sustainable growth of the Group based on the Group Philosophy, the **Core Value** shows the five values that we wish to particularly emphasize and enhance even more.

**Furukawa Electric Group Vision 2030** is a visionary outlook of the Group, with the time frame set to 2030, based on our conception of broad aspects of the future society and the Group's Corporate Philosophy.

In conducting corporate activities based on the Furukawa Electric Group Philosophy and Core Value, the **Furukawa Electric Group CSR Code of Conduct** defines fundamental rules of behavior that Furukawa Electric Group executives and employees should follow from the perspective of corporate social responsibility.





# Changes in the external environments concerning sustainability and the social issues surrounding Furukawa Electric Group

## Analysis of the External Environments in FY2020

In fiscal 2020, the global economy was significantly affected by the COVID-19 pandemic and the economic environment deteriorated rapidly. In the United States, the government's major measures against the COVID-19 pandemic supported its economy but the pace of economic recovery was moderate. In Europe, the stay-at-home measures implemented in the UK and other countries significantly restricted individual consumption and corporate production activities, and economic activities have been substantially reduced. In China, the economy significantly contracted temporarily but has then been recovering, despite the uncertain economic environment, partly driven by the

heightened political tensions with various countries including the United States and Europe.

In Japan, a state of emergency was declared due to the spread of COVID-19, and the economic activities were greatly affected. In the second half of the year, the spread of infections tapered, but spiked in January 2021, increasing uncertainty about the economic outlook.

Meanwhile, prompted by the COVID-19 pandemic, digitalization accelerated across society, interest in ESG and SDGs increased, and the global supply chains were reviewed. These were among the changes newly important for looking beyond the post-COVID-19 world.

### Current social issues (Awareness from pre-COVID-19)

- Era of VUCA (Volatility, Uncertainty, Complexity, Ambiguity)
- Advancements in low carbon/carbon free and renewable energy
- Spread of smart cities and 5G
- Advancements in CASE and changes in the mobility market
- Appearance of new markets utilizing DX
- Increased awareness of disaster prevention and mitigation
- Market growth in Asia and other regions, and increased trade friction between the US and China
- Shrinking existing markets and difficulty securing personnel in Japan
- Importance of risk management throughout the supply chain

### Changes to the environment following COVID-19

- Increase in VUCA, and accelerating management speed
- Further awareness of ESG/SDGs, and accelerated selection within the markets
- Japanese government's declaration to reduce greenhouse gas emissions to net zero by 2050
- Increased communications traffic, and accelerated preparation of telecommunications infrastructure and 5G/B5G\*
- Acceleration of CASE (EV), and accelerated changes in the mobility business
- Further awareness of various disasters and risks
- Realization of the risk of supply chain disruptions
- Changes in the concept of mobility, and changed awareness towards work styles and workplaces

\* B5G: Beyond 5G

## The social issues surrounding Furukawa Electric Group and



Realize a carbon-free society



Realize a resource recycling-based society



Advances in 5G/B5G, increased communications traffic



Realize tougher infrastructure



# The Future that Furukawa Electric is Envisioning and Furukawa Electric Group Vision 2030

## The Founder's Thoughts

Value employees  
Value customers  
Value new technology  
and  
Contribute to society



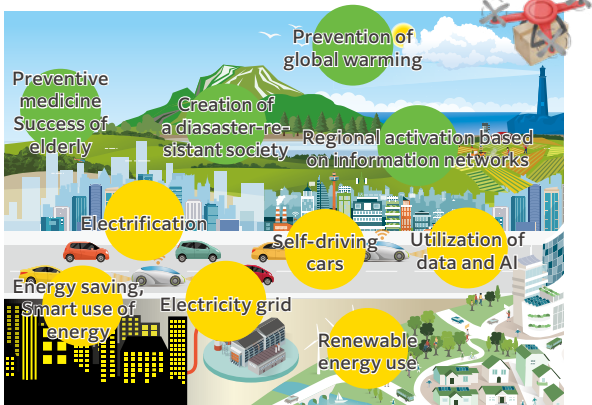
## Sustainable Development Goals (SDGs)

### SUSTAINABLE DEVELOPMENT GOALS



## The future image of society in 2030 drawn by Furukawa Electric and what we want to be

### The future society image of Vision 2030



Furukawa Electric Group's employees, mainly in the generation that will lead management in around 2030 in Japan and overseas, carried out numerous discussions, exhaustively projected the future, and put together Furukawa Electric Group Vision 2030.

### Becoming a corporate group that can provide value

We are committed to **becoming a corporate group that can provide value** in society, which is being integrated by advanced information associated with progress in ICT technology. We intend to achieve this goal by expressing our specific target timeframe and areas aimed at by the Group, sharing the vision throughout the entire Group, and bringing together our strengths.

### Becoming a corporate group that proactively innovates itself

We are committed to **becoming a corporate group that proactively innovates itself**. We intend to achieve this goal by imagining how the world changes and how our group can help solve social issues, while inheriting our founders' thoughts and valuing our everlasting values stated in our group philosophy and Core Value.

## Promotion of ESG management, directed at achieving Furukawa Electric Group Vision 2030

Directed at achieving Furukawa Electric Group Vision 2030, Furukawa Electric is openly, agilely and innovatively promoting management aimed at medium to long-term improvement in corporate value based on ESG (environment, social and governance).

## SDGs highly relevant to the social issues to be solved in 2030



Acceleration of vehicle CASE (EV)



Realize tougher traffic infrastructure



Town planning for mitigating disasters



Regional revitalization & stimulate the rural economy

# Furukawa Electric Group's Sustainability

## The Group's Basic Concept of Sustainability

The mission of Furukawa Electric Group is to “contribute to the realization of a sustainable society,” as outlined in its Corporate Philosophy and we aim to ensure that the environment, society, and economy continue to sustain over the medium- to long-term, and that our Group will make sustainable

growth. In response to the recent rapid changes in the business environment surrounding our Group, we have established Furukawa Electric Group Basic Policy on Sustainability, as a basic idea for our Group to achieve sustainable growth.

### Furukawa Electric Group Basic Policy on Sustainability (Established in August 2021)

Furukawa Electric Group will:

- in line with its mission of contributing to the realization of a truly affluent and sustainable society, tackle important management issues (materiality) from the perspectives of both revenue opportunities and risks, while focusing on the future of people and the planet.
- in order to have sustainable growth and contribute to the achievement of SDGs (sustainable development goals), strengthen and create businesses that solve social issues, while focusing on capital efficiency and continuing to transform its business through continuous technological innovation centered on material technologies and collaboration with various stakeholders.
- contribute to the sustainable development of society by maintaining and improving sound and positive relationships with all stakeholders through appropriate information disclosure and active communication, while complying with laws, regulations, social norms and ethics in Japan and overseas.

## Sustainability Promotion Framework

Recently, the interest in corporate sustainability increases as a material issue to achieve sustainable growth and increase corporate value over the medium-to-long term. Therefore, companies must be able to respond positively to sustainability-related issues, and they are also increasingly required to disclose information on sustainability issues and countermeasures.

From this kind of circumstance, the “Furukawa Electric Group Sustainability Committee” (hereinafter, “Sustainability Committee”) was established to consolidate discussions on sustainability within Furukawa Electric Group and further enhance the quality and speed of implementation thereof.

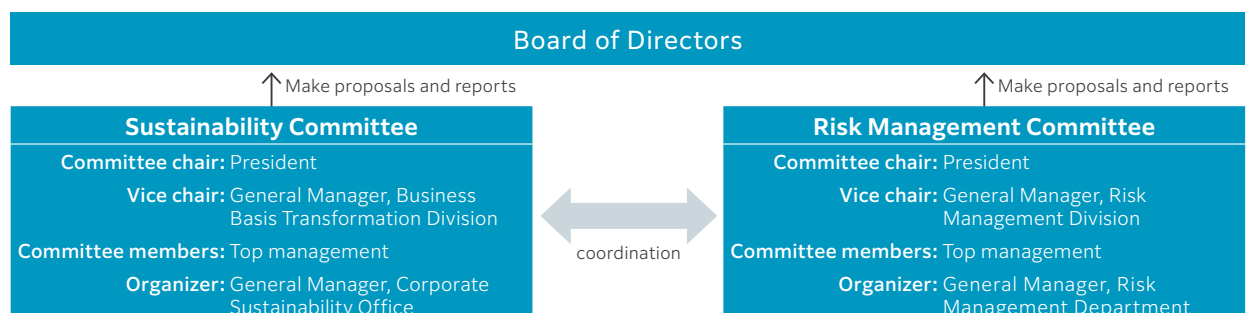
The committee is chaired by the President, vice-chaired by the General Manager of the Business Basis Transformation Division, and composed of members of

top management. It meets to discuss sustainability issues that concern Furukawa Electric Group and makes proposals and reports to the Board of Directors.

The Corporate Sustainability Office serves as the secretariat, and the committee will generally meet twice a year.

- the Sustainability Policy
- basic matters and current progress on materiality related to revenue opportunities and risks
- disclosure of basic information related to sustainability
- SDG activities and community/social activities
- other important sustainability issues

Additionally, as risk materiality matters are closely related to risk items concerning management of the Group, they are therefore handled in coordination with the Risk Management Committee.



(As of September 2021)

## Furukawa Electric Group's ESG Management and Materiality

In order to achieve the "Furukawa Electric Group Vision 2030," we are promoting ESG management, which aims sustainable growth of the Group and medium- to long-term growth of corporate value.

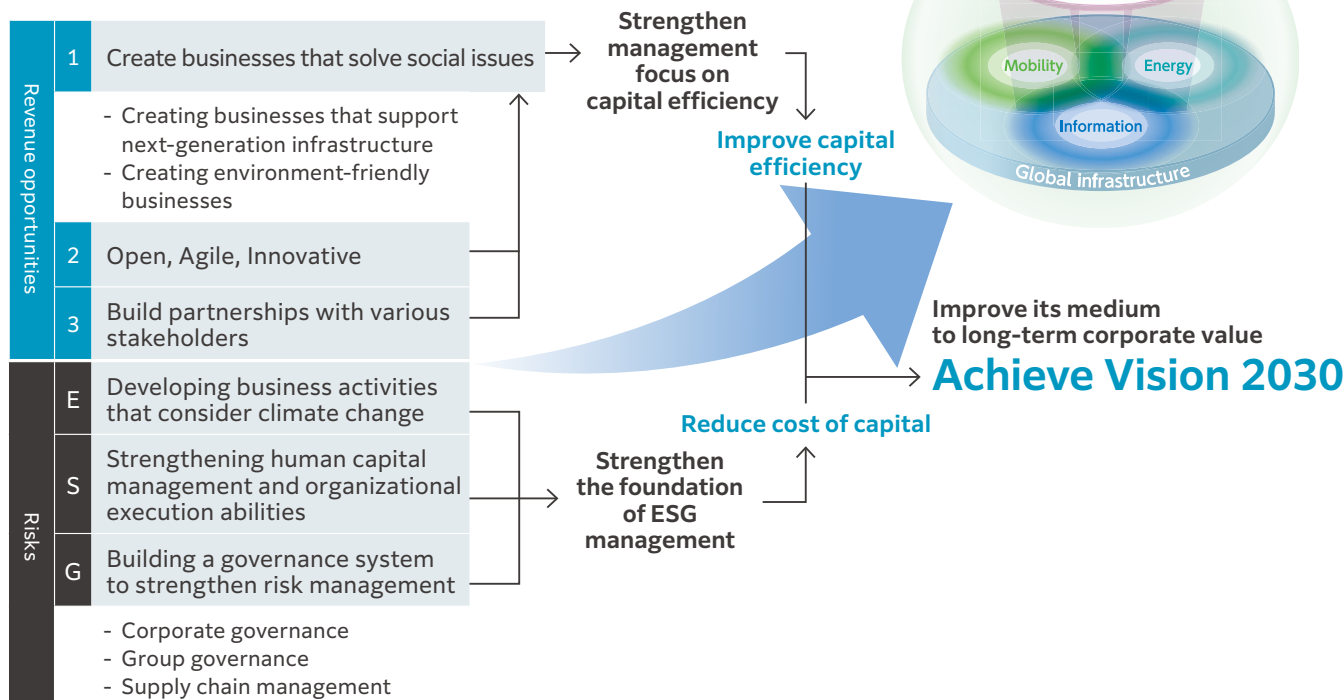
We have defined "materiality" as important management issues that the Group should address in order to achieve Vision 2030, and we defined materiality in terms of both revenue opportunities and risks, in accordance with the process of identifying important management issues. By working on the materiality, we will achieve Vision 2030 and contribute to the achievement of the SDGs.

From the perspective of revenue opportunities, in order to help solve various social issues through the business activities of the Group, we found it indispensable to devise a transformation from the conventional "Product-Out" approach to "Outside-In" approach and identified the "creation of businesses that solve social issues" as materiality. Examples of these include the "creation of businesses that support the next generation infrastructure," which will serve as the foundation of the society anticipated in Vision 2030, and the

"creation of environmentally friendly businesses," which contribute to the realization of a decarbonized society and a recycling-based society. We also accelerate the "creation of social issue-solving businesses" through the slogan "Open, Agile, Innovative," which reflects the desire to become a company that actively transforms itself, and the "Building partnerships with various stakeholders," focusing on co-creation with others. We will also work on improving capital efficiency, including cost of capital.

On the other hand, from a risk perspective, in order to achieve sustainable growth, it is essential that companies develop business activities that take into account climate change, and we see this as materiality. In addition, in order to become a company that actively transforms itself, we will strengthen the foundation of ESG management and reduce the cost of capital by focusing on the materiality of "strengthening human capital management and organizational execution abilities" and "building a governance system for strengthening risk management" including corporate governance.

### Relationship between the materiality of both revenue opportunities and risks, and the medium- to long-term corporate value



\* With regard to SDGs highly relevant to the materiality of revenue opportunities and risks, see "Participation in initiatives" on page 82 of this report.



# Process of Identifying Materiality

## Step 1

### Understanding and organizing social issues

In identifying materiality, we identified social issues by referring to "external factors" and "internal factors," adjusted duplicate items, and created a list of 29 items.

#### External factors

- 17 SDG goals and 169 targets
- FTSE, MSCI and DJSI ESG evaluation items, etc.

#### Internal factors

- Important measures of Furukawa G Plan 2020
- Values of Furukawa Electric Group
- Important Companywide risks, etc.

## Step 2

### Materiality map evaluation

The two axes of "importance to shareholders and investors" and "importance to achieving Vision 2030" are evaluated for importance (high, medium, low) and prioritized.

#### Importance to shareholders and investors

- Interviews with institutional investors
- Impact on ESG rating assessment

#### Importance to achieving Vision 2030

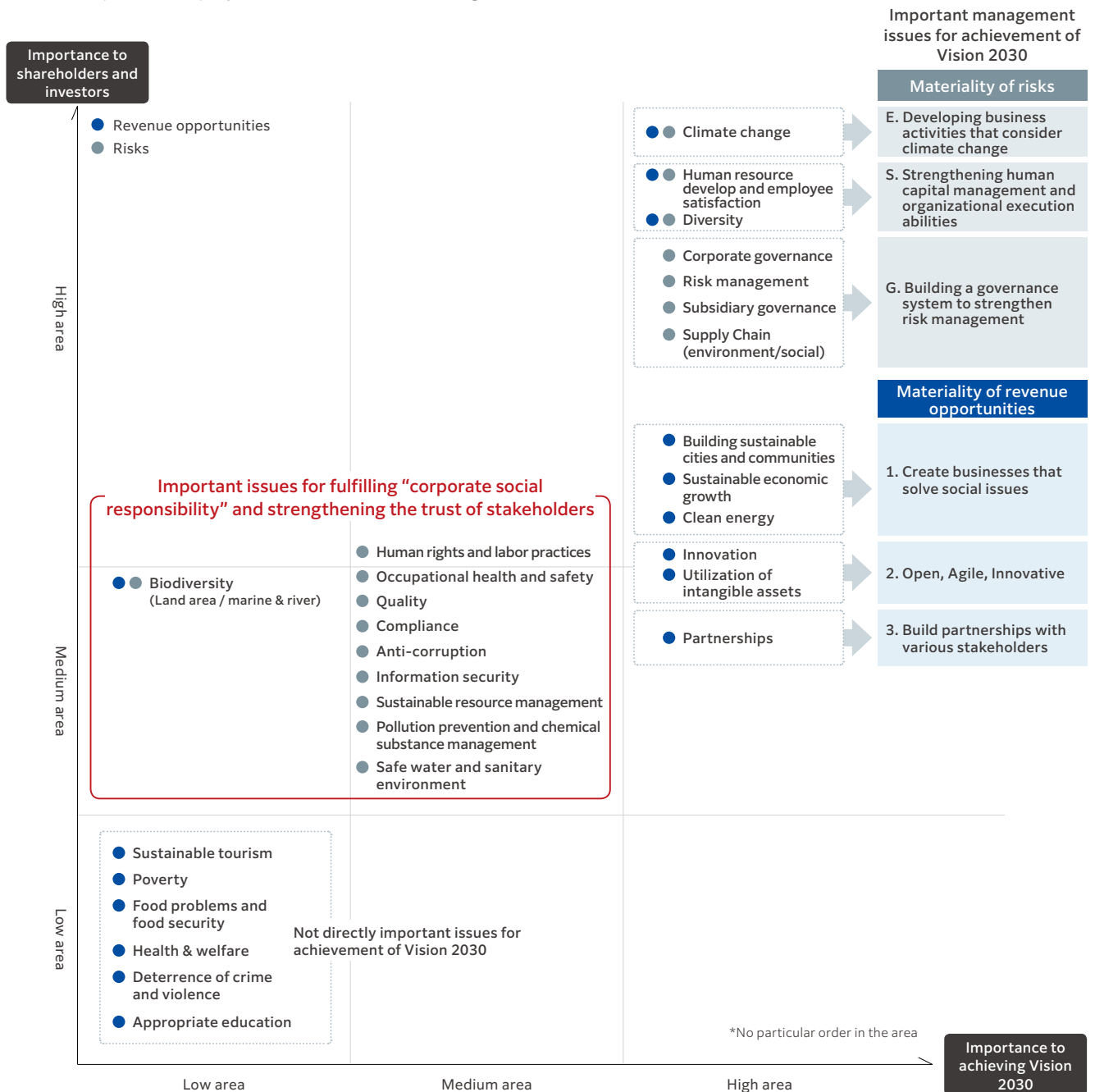
- Management and executive officers gather together regularly to discuss materialization of Vision 2030
- Discussions of CSR and Risk Management Committee reflected

## Step 3

### Identification of materiality

High-priority items are categorized by revenue opportunity and risk aspects and identified as materiality items.

The identified materiality items are categorized and rearranged as important issues for achieving Vision 2030, and expressed as the materiality of three revenue opportunities and the materiality of the E, S, and G risks.



\* With regard to materiality, we distinguish between important issues for achieving Vision 2030 and important issues for fulfilling corporate social responsibility and strengthening the trust of stakeholders.

# Value Creation Process

Furukawa Electric Group has developed capabilities for development and making proposals, without being limited to specific markets and with its four core technologies—metals, polymers, photonics, and high frequency—centered on capabilities to handle materials. Through these capabilities, we have gained the trust of customers.

Our Group at present is engaged in a wide range of products and services of focused businesses of communications solutions, energy infrastructure, and automotive parts, as well as of electronics component materials and functional products that support these focused businesses. In many business areas of the electronics market, including IT, energy, automobiles, and semiconductors that support them, we contribute to solving social problems.

Going forward, for achieving sustainable growth of the Group and medium- to long-term growth of corporate value, we will strengthen and create social issue-solving businesses.

First, in order to strengthen social issue-solving businesses, we will strengthen and transform businesses with an awareness of capital efficiency, including cost of capital, and do what is necessary to stabilize earnings in information, energy, and mobility sectors. As a result, we will contribute to a changed information-, energy-, and mobility-based society through high-speed, high-capacity information transmission infrastructure businesses, renewable energy-related businesses, and automotive-related businesses that support the progress of Connected, Autonomous, Shared, and Electric (CASE) mobility.

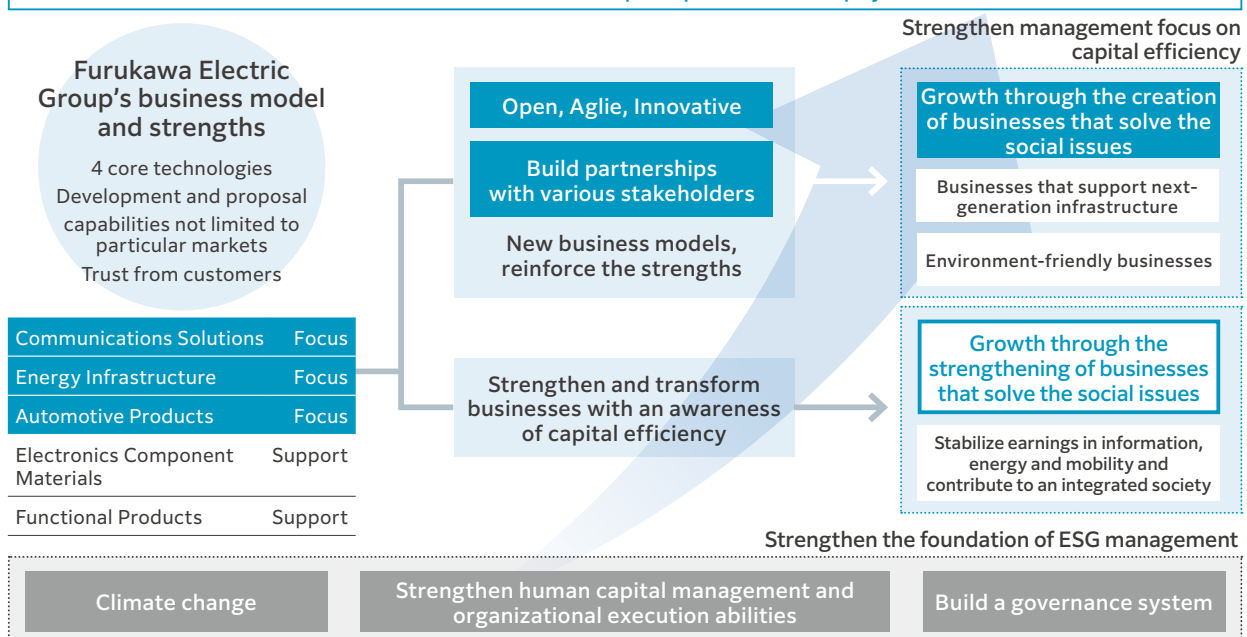
Next, in order to create businesses that solve social

issues, we will enhance our strengths and build a new business model through open innovation and co-creation with our partners. Examples of what we foresee to be done include the “creation of businesses that support the next generation infrastructure,” which would serve as the foundation of the integrated society of Vision 2030, and the “creation of environmentally friendly businesses,” which contributes to the realization of a decarbonized society and a recycling-based society.

To mention an example of a business that supports next-generation infrastructure, we have developed a next-generation bipolar storage battery that can contribute to the stable supply of electricity generated by renewable energy by integrating our metal and polymer technologies with the battery technology of Furukawa Battery Co. We expect to start shipping them soon. Through joint development with our partners, we aim to create businesses that support the next-generation infrastructure that combines favorable effects regarding energy and mobility, contributing to the realization of a decarbonized society and a recycling-oriented society.

As an example of an environmentally friendly business there is the Blue-IR hybrid laser BRACE®, that we developed. This combines the fiber laser manufactured by Furukawa with a high-brightness blue laser oscillator, which integrates Nichia's world-leading GaN laser diode with Furukawa's laser module assembly technology. Going forward, in collaboration with Nichia Corporation, we will provide new copper processing solutions using this hybrid laser for key parts of electric mobility, contributing to demand growth for that through accelerated decarbonization.

## Furukawa Electric Group Corporate Philosophy



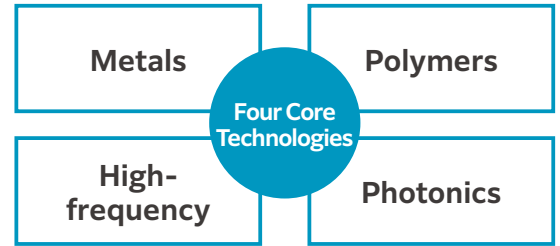
# Research & Development

## R&D Vision

The Furukawa Electric Group will mobilize its abilities and contribute to society with its material technology based around the theme of “using technology acquired through our material capabilities to help realize a comfortable, pleasant society for people.”

## Four Core Technologies

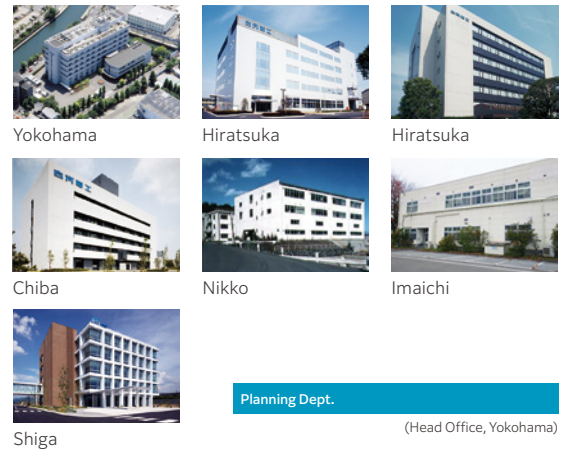
Since its foundation in 1884, Furukawa Electric Group has accumulated material technologies by expanding from copper smelting and electrical cables to a wider range of areas. By adding high-frequency electronics technology to materials technology, we currently have four core technologies—metals, polymers, photonics, and high-frequency. Along with the development of products and services in the three Segments of Infrastructure, Electronics & Automotive Systems and Functional Products, we are committed to contributing to a sustainable society through new businesses and new products.



## R&D Organization

With the aim of creating and developing new businesses via new products and new technologies, Furukawa Electric Group is actively engaged in R&D activities through its R&D organization that is centered on Furukawa Electric’s laboratories in Japan as well as OFS Laboratories, LLC, Furukawa Electric Institute of Technology Ltd. (FETI), SuperPower Inc., Silicon Valley Innovation Laboratories, Furukawa Electric (SVIL) outside Japan.

### Locations in Japan



### Locations in Overseas



**OFS Laboratories**  
(USA: optical fibers)



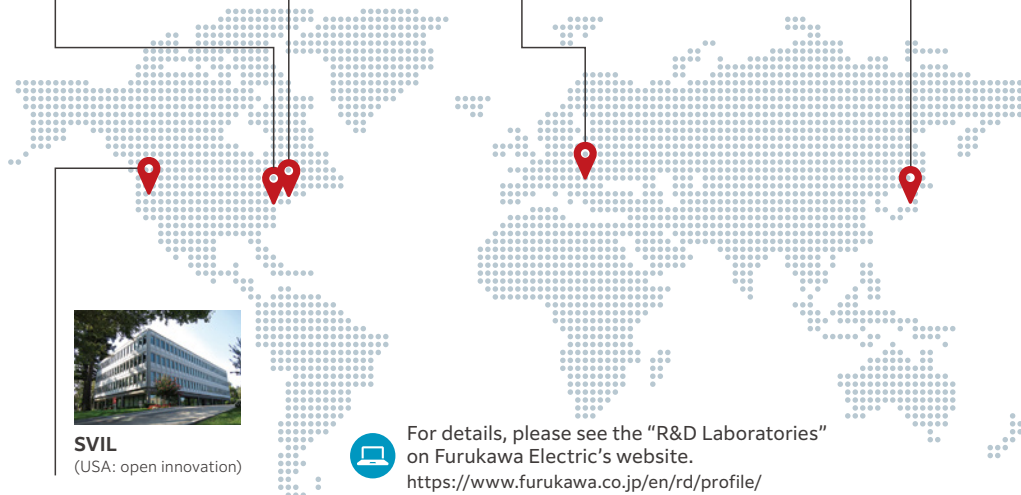
**SuperPower Inc.**  
(USA: superconductivity)



**FETI**  
(Hungary: analysis)



**SVIL**  
(USA: open innovation)




For details, please see the “R&D Laboratories” on Furukawa Electric’s website.  
<https://www.furukawa.co.jp/en/rd/profile/>

- Planning Dept.  
(Head Office, Yokohama)
- Sustainable Technology Laboratory  
(Yokohama, Nikko and Hiratsuka)
- Automotive Products & Electronics Laboratories  
(Hiratsuka, Nikko, Shiga and Imaichi)
- Telecommunications & Energy Laboratories  
(Chiba and Hiratsuka)
- Incubator Dept.
  - Future Infrastructure Technology Center  
(Hiratsuka)
  - Superconducting Products Department  
(Nikko)
  - Advanced Laser Development Project Team  
(Chiba)
- Digital Innovation Center  
(Yokohama)
- Intellectual Property Dept.  
(Yokohama, Chiba, Hiratsuka and Shiga)

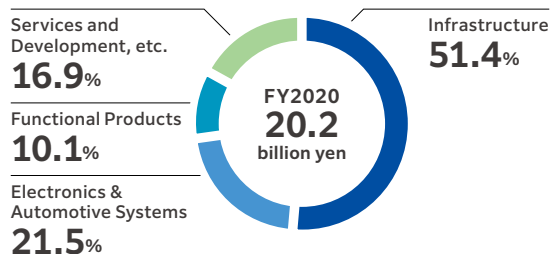


## R&D Investment

In fiscal 2020, R&D expenses decreased by 6.6% from the previous year to 20,217 million yen for developing new products and new businesses in each segment, with the aim of enhancing focused areas and creating new businesses.

 For details on R&D activities by segment, please see "R&D activities" on pages 24-26 of the 199th Securities Report. [https://www.furukawa.co.jp/ir/library/sr/pdf/199\\_04.pdf](https://www.furukawa.co.jp/ir/library/sr/pdf/199_04.pdf) (Only Available in Japanese)

Furukawa Electric Group's R&D investment by segment




## R&D Activities Aimed at Achieving Vision 2030

In order to build a sustainable world and make people's lives safe, peaceful and rewarding, Furukawa Electric Group is engaged in R&D activities aimed at the creation of social infrastructure that combines the areas of information, energy and mobility. We established

Fun Lab® as a base for open innovation in Yokohama Works in 2016. Then, for the achievement of Vision 2030, we opened the Digital Innovation Center in 2020, and the Sustainable Technology Laboratory and the Incubator Department in 2021.

### Digital Innovation Center (April 2020)


As the core of Furukawa Electric Group, we will strengthen digital technologies and promote DX (digital transformation). Then, we aim for the achievement of the SDGs and the resolution of social issues. Concerning the Digital Innovation Center's efforts for DX, see "Digital Transformation (DX)" on page 32 of this report.

 For details, please see the "Digital Innovation Center" on Furukawa Electric's website. <https://www.furukawa.co.jp/en/rd/profile/digital.html>

- MONOZUKURI strengthening and innovation: Improvement of the productivity of Production Department and the passing on of technology based on digital technology
- New business creation in integrated areas: The creation of KOTOZUKURI business using AI
- The development of AI / IoT human resources: The standardization of digital environments, and the securing, development and education of human resources

### Sustainable Technology Laboratory (April 2021)


The laboratory integrates the search for themes directed at resolving environmental and social issues and the further advancement of the core technologies, as well as creates and fosters the seeds of new businesses aimed at realizing sustainable social infrastructure.

 For details, please see the "Sustainable Technology Laboratory" on Furukawa Electric's website. <https://www.furukawa.co.jp/rd/profile/sustainable-technology.html> (Only Available in Japanese)

- Advanced technology
- Analysis and reliability technology
- Metals technology
- Polymer technology
- High frequency electronics technology

### Incubator Department (April 2021)

The department oversees the commercialization projects (future infrastructure, superconductors, advanced lasers) of the Research & Development Division, as well as creates new value and incubates new businesses together with customers and business partners.

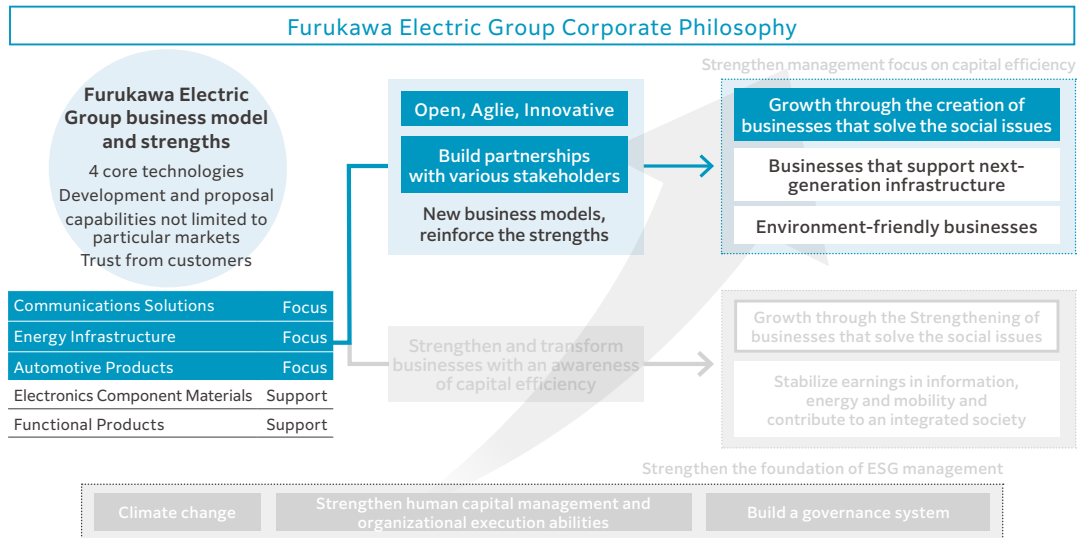
 For details, please see the "Incubator Department" on Furukawa Electric's website. <https://www.furukawa.co.jp/rd/profile/incubator/index.html> (Only Available in Japanese)

# Creating businesses that solve social issues

Furukawa Electric Group aims to achieve sustainable growth and contribute to the achievement of the SDGs by utilizing its core technologies in metals, polymers, photonics, and high frequency, which have been cultivated over many years with material capabilities at the core, and by creating social-issue solving businesses through open innovation and collaboration with partners.

As part of our efforts to become carbon neutral in order to realize a decarbonized society, which is one of the social issues, we will explain the development of bipolar storage batteries, the development of the Blue-IR Hybrid Laser "BRACE®", and the development of LP gas generation technology using the Ramune Catalyst™.

## Value Creation Process Aimed at Creation of Social-Issue Solving Businesses



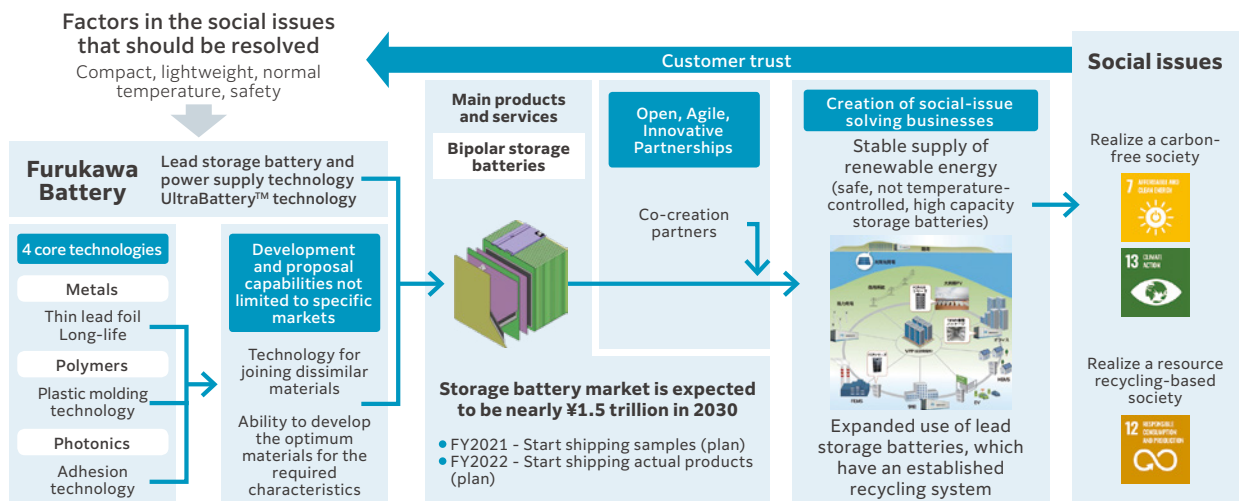
## Development of bipolar storage batteries that contribute to utilization of renewable energy

By combining our metal and polymer technologies with the battery technology of The Furukawa Battery Co., we have jointly developed a next-generation bipolar storage battery, which has long been considered difficult to commercialize.

Bipolar storage batteries have a simple structure that enables high battery capacity, and they also do not require temperature control when operating, making them highly economical and reducing the total cost to less than half that of lithium-ion storage

batteries for power storage. This product can contribute to the stable supply of power generated by renewable energy.

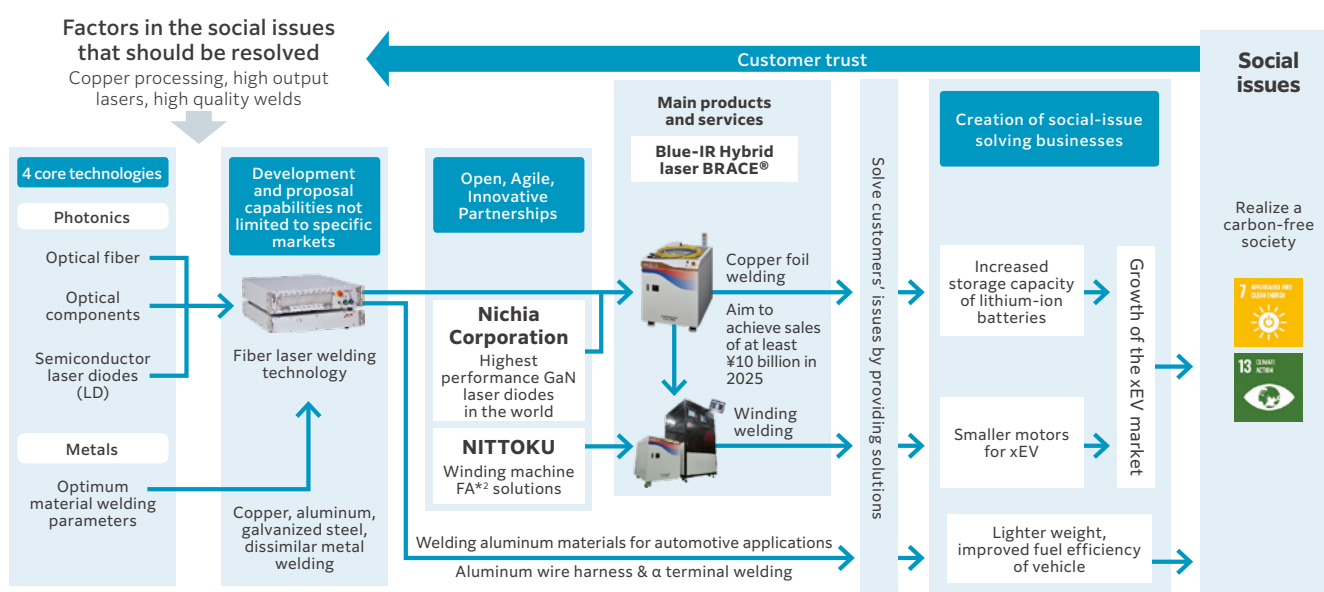
Through the launch of this product and collaboration with our partners, we aim to create businesses that support next-generation infrastructure that integrates energy and mobility, and we will contribute to the realization of a decarbonized society and a sound material-cycle society with the Group's technological capabilities.



## Development of Blue-IR hybrid laser “BRACE®” that contributes to the electrification of mobility

As the global trend toward decarbonization is accelerating, demand for the electrification of mobility is expected to grow further. Furukawa Electric has developed the Blue-IR Hybrid laser<sup>1</sup> BRACE® equipped with a high-brightness blue laser diode module with Nichia Corporation. This product can contribute to the improvement of productivity (quality and processing speed) in the process of welding copper, which is a conductor in lithium-ion batteries, motors, inverters, and other components that are key

components for electric mobility, as well as labor saving in the manufacturing process. In the past, pure copper, with its extremely high optical reflectance, was considered a difficult material to process, but this product achieves a high level of quality, depth, and processing speed in copper processing. By providing new copper processing solutions with this product, we will be able to solve the problems of our customers and contribute to the expansion of demand for electric mobility due to the acceleration of decarbonization.



1. Blue-IR Hybrid Laser: A hybrid laser combining a high-power blue oscillator featuring the world's highest-performance GaN laser diode (LD) from Nichia Corporation with a high-brightness blue laser diode module that combines Furukawa Electric's laser module assembly technology with a near-infrared (IR) single-mode fiber laser
2. FA: Factory automation

Please see details on our website page “Industrial Lasers”.  
<https://www.furukawa.co.jp/fiber-laser/en/>

### Topics

#### Publication of Furukawa Electric Review No. 140 "Special Feature: Laser Processing of Copper" (July 2021)

Furukawa Electric has published Issue No. 140 (Special Feature: Laser Processing of Copper) of the Furukawa Electric Review, a technical and research journal that introduces the results of the Group's research and development, as well as its technologies and new products. As one of the materiality of revenue opportunities to achieve Vision 2030, the Group has set forth “Building partnerships with various stakeholders.” In this issue, we received two contributions from outside the Group, the first such case for the Furukawa Electric Review. Each of them is a strong partner who has mastered the art of “laser processing of copper” and shares in the success of the business.

For more information on each of the papers in the “Laser Processing of Copper” section, including these contributions, please visit our website page “Furukawa Review”.  
<https://www.furukawa.co.jp/en/rd/review/>



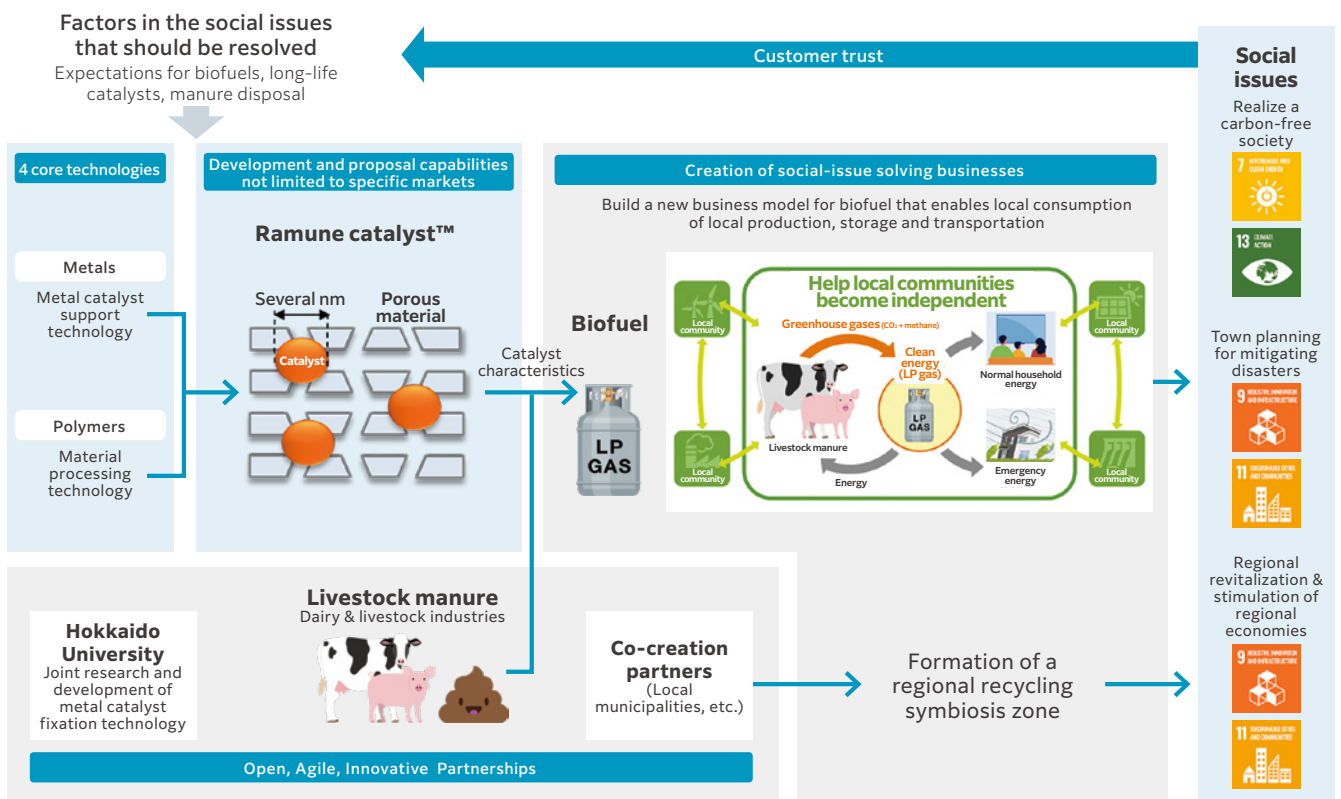


## Technology for Producing LPG with Ramune Catalyst™

With the aim of realizing a decarbonized society, we have succeeded in developing a technology to convert biogas into LP gas by applying metal catalyst fixation technology developed through joint research with Hokkaido University. In this development, we focused on the biogas obtained from livestock manure in the livestock industry and used the Ramune Catalyst™\* that we developed as a technology that can be recycled with high efficiency. As a result, the reaction, which previously had low activity and lasted only a short time, has been greatly improved.

In addition, by using this technology to create LP gas from carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) obtained from livestock manure, which can be easily

stored and transported, the LP gas can be used as energy in homes, dairy farms, and other industrial sites, as well as energy for disaster relief. In addition to contributing to the realization of a decarbonized society, this technology will enable the local production and local consumption of energy and contribute to the formation of a regional recycling symbiosis zone as part of a new social infrastructure for local communities. Rather than acting independently, it is essential for us to build a new ecosystem with many partners. In the future, we aim to conduct research and development and then commercialization through collaboration with a wide range of stakeholders, including Hokkaido University and local municipalities.



\*Ramune catalyst™: Furukawa Electric has succeeded in fixing a metal catalyst inside a porous material. This catalyst has flocculation and coking resistance, which has been an issue with conventional catalysts, and is highly active and long-lived in dry reforming reactions where synthesis gas is obtained from biogas. We named the catalyst Ramune Catalyst™ because the way the catalyst is fixed inside the porous material resembles a bottle of ramune (a Japanese carbonated soft drink).

## Commercialization and Practical Application Roadmap Aimed at Creation of Businesses that Solve Social Issues

Products and services	FY2021	FY2022	FY2023	FY2024	FY2025	...	FY2030
<b>Bipolar storage batteries</b>	Sample shipments started	Product shipments started					
<b>Blue-IR hybrid laser BRACER®</b>	BRACE™-1 commercialized	Higher power output	Further advancement		Sales target: At least ¥10bn		
<b>Technology for producing LPG with Ramune Catalyst™</b>			Demonstration by small test machine		Field demonstration tests		Practical use

# Open, Agile, Innovative Partnerships

## Fun Lab®, a space to create new open innovation

The Fun Lab, which Furukawa Electric established within the Yokohama Laboratory in 2016, is a place to promote open innovation and to create new value via COMPREHENSION, COOPERATION and COLLABORATION with visitors. Through creative, stimulative communication with visitors from

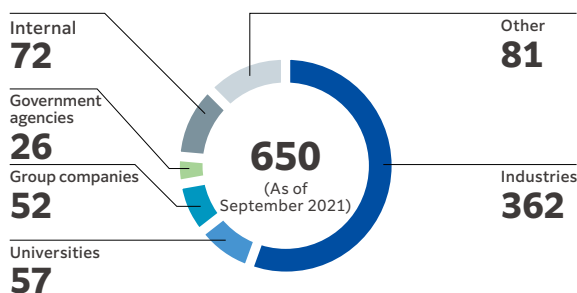
industries, government agencies, schools, etc., we want to create innovation and help realize a sustainable society. Since the renewal in June 2019, the Fun Lab has been continuing efforts to promote open innovation.



Inside the renovated Fun Lab

For details, please see our corporate website "Fun Lab, a new space for generating open innovation."  
<https://www.furukawa.co.jp/funlab/en/>

### Fun Lab visitor groups in the first five years by type



## Topics

### Started a Fun Lab® virtual tour using VR technology (April 2021) Encouraging the creation of open innovation opportunities through online experiences

Fun Lab® has welcomed many visitors from industries, government, academia, and group companies to promote discussions on co-creation of new products and businesses. However, due to the spread of COVID-19, it has become difficult to welcome a large number of visitors. In order to create opportunities for open innovation and co-creation in the Fun Lab® even in such an environment, we have opened a dedicated virtual tour website using virtual reality (VR) content production software developed by Spacely, Inc. Spacely's VR content creation software does not require extensive filming or programming, and users can update the virtual tour content as new exhibits are built or replaced. In addition, it does not require any special equipment and can be viewed not only on PCs and tablets but also on smartphones, so it can be used at any time and place.



For further details please see our website "Fun Lab® Virtual Tour dedicated website. You can experience Fun Lab® in VR."  
<https://www.furukawa.co.jp/funlab/virtual/> (Only available in Japanese)

### Registered as a "Kanagawa SDGs Partner" for the 5th term (May 2021)

Furukawa Electric was registered as a "Kanagawa SDGs Partner" in May 2021.

The "Kanagawa SDGs Partners" program is a program in which the prefecture solicits, registers, and disseminates examples of initiatives by companies, organizations, and other entities that are developing projects that contribute to the promotion of the SDGs in Kanagawa Prefecture, and in which the prefecture and companies, organizations, and other entities work together to promote the SDGs.

As a member partner of this program, we have registered as one of the initiatives the promotion of open innovation and partnerships based in Fun Lab® (in our Yokohama Laboratory), which was established in Kanagawa Prefecture, one of the places where Furukawa Electric was founded. We will continue to actively contribute to the achievement of the SDGs.



# Intellectual Property

## Intellectual Property Strategy of Furukawa Electric Group

The Furukawa Electric Group's basic policy is to consider intellectual property an important management resource and to make use of it. It promotes group and global intellectual property

activities by integrating business, R&D, and intellectual property.

The basic policy consists of the following three pillars:

(1)	<b>Utilizing intellectual property with Open &amp; Closed strategies</b>	Run a cycle that starts from utilization of intellectual property (utilization, creation, and then protection)*, and formulate and implement Open and Closed strategies to enhance business strategies.
(2)	<b>Strengthening management and business strategy planning capabilities by IP Landscaping</b>	Strengthen management and business strategy planning capabilities by IP Landscaping that analyzes and utilizes intellectual property information by incorporating it into strategy planning processes.
(3)	<b>Stabilizing business by reducing intellectual property risks</b>	Identify four categories of risks, which are infringement risk, technology outflow risk, contract risk, and counterfeit risk, as frequent risks with a significant impact, and continuously reduce such risks to stabilize business.

\*The basic concept of promoting intellectual property management: In order to enhance our business, we implement intellectual property strategies for our unique differentiating technologies and run a cycle starting from the utilization of intellectual property.

Based on (1) to (3) above, we are working from the following two major perspectives to realize Furukawa Electric Group Vision 2030 and achieve the SDGs.

### (1) Risk minimization

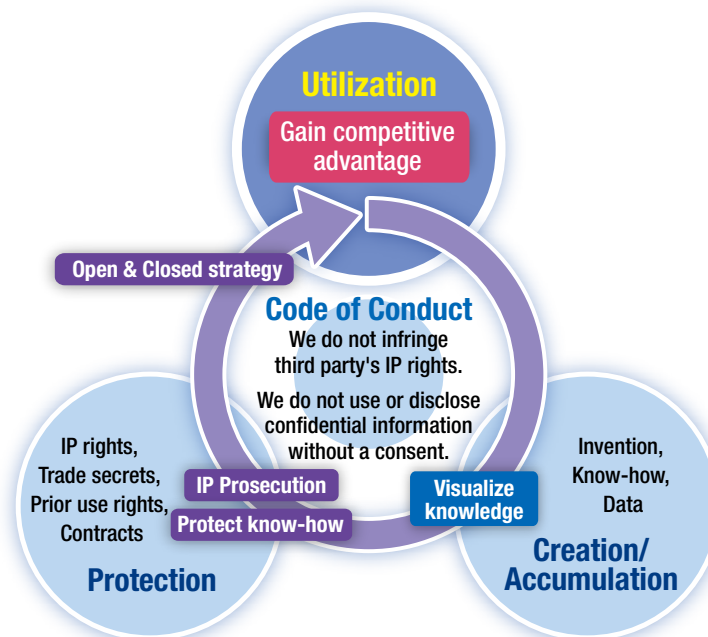
Minimize business risks by protecting our unique technologies that differentiate our products from others with intellectual property rights and technical know-how.

Specifically, in the fields of information, energy, and mobility, which we focus on, we ensure to develop and use intellectual property portfolios on the basis of detailed competitor analysis in order to support stable revenue.

### (2) Chance Maximization

Seek new business fields and business models by IP Landscaping, which analyzes competitive environment and market environment including intellectual property information of our own and other companies.

Specifically, we support creating businesses that solve social issues by focusing on businesses that support next-generation infrastructures and environmentally friendly businesses.





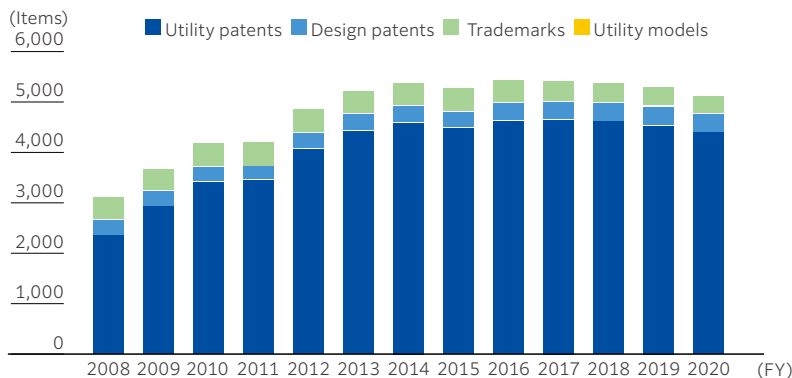
## Intellectual property portfolio

In order to strengthen its business competitiveness through intellectual property, the number of rights held by Furukawa Electric has exceeded 5,000 in Japan in the past

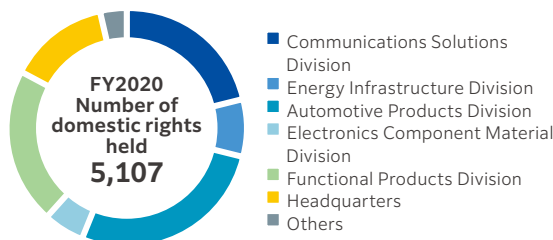
seven to eight years, including fiscal 2021. With the expansion of sales in global markets, the number of overseas rights in the US, Europe and China has increased.

### Rights held by Furukawa Electric over the years and breakdown of rights by division in fiscal 2020

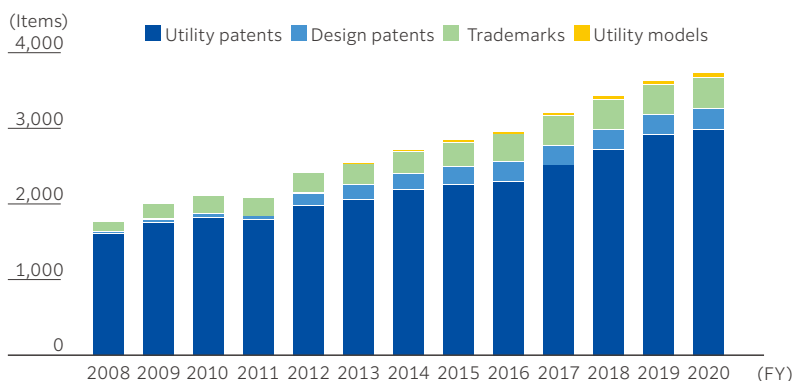
#### Number of domestic rights held by Furukawa Electric



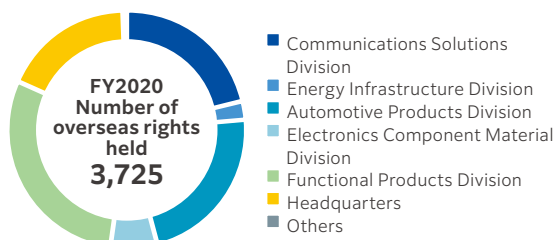
#### Breakdown of rights by division



#### Number of overseas rights held by Furukawa Electric



#### Breakdown of rights by division



## Intellectual property data

		Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Furukawa Electric	Number of domestic patents held	patents	4,619	4,644	4,605	4,523	4,388
	Number of overseas patents held	patents	2,289	2,507	2,712	2,910	2,976

For details, please see the "Intellectual Property Report" on Furukawa Electric's website. <https://www.furukawa.co.jp/en/rd/ip-report/>

### Topics

#### Received the "Derwent Top 100 Global Innovators 2021 Award"

(February 2020)

We were chosen among the "Top 100 Global Innovators 2021" by Clarivate Analytics, a global information service company. This is the sixth award and the fourth-consecutive award from 2018 for Furukawa Electric.

Top 100  
Global  
Innovator  
2021



For further details, please see our corporate website. [https://www.furukawa.co.jp/release/2021/kei\\_20210224.html](https://www.furukawa.co.jp/release/2021/kei_20210224.html) (Only available in Japanese)

# Digital Transformation (DX) of Furukawa Electric Group

## The Basic Concept of the Digital Transformation (DX) Strategy

Furukawa Electric Group will plan and formulate a DX strategy based on the following ideas, referring to the Ministry of Economy, Trade and Industry's

“Guidelines for Promotion of Digital Transformations (DX Promotion Guidelines)” Ver. 1.0 and other guidelines.

- (1) **Position DX as a top-down management strategy in the medium-term plan, and create and share the vision and policy across the entire company.**
- (2) **Provide an overall picture of the target areas, and for each area, organize and present targets for achieving a competitive advantage by 2030.**
- (3) **Formulate a plan for human resource development and recruitment by clarifying the image and goals of the required human resources.**
- (4) **In order to optimize the entire process using digital technology, develop data infrastructure that spans the entire process, as well as data infrastructure that spans manufacturing, sales, and logistics by product unit.**

## Major Initiatives in Response to Materiality

### Digital Innovation Center established

#### Open, Agile, Innovative

As part of our commitment to quality and reliability, we have been working on statistical analysis technology for a long time, and in the 2010s, we also introduced technologies such as big data analysis and deep learning. With these technologies as elemental technologies, we set up the Digital Innovation Center in April 2020 in order to establish digital technologies, represented by AI/IoT, as fundamental technologies that support the entire company.

The Digital Innovation Center will serve as the core of our group, with the aim of strengthening digital technology to achieve the SDGs and solve social issues. We are working to create high added value by leveraging AI and manufacturing

innovation based on digital technology. As a core organization for digital technology that cuts across corporate divisions and marketing, we will promote the development of digital software infrastructure through activities that integrate R&D, manufacturing, ICT, and marketing.

In 2030, we envision that digital technology will differentiate our core technologies and become a source of competitiveness for our products. To that end, we are conducting research and development with the following matters in mind:

- As a specialized department, we must continue to develop and strengthen our sharp skills.
- As an internal organization, the Center should be closely and safely used by business units.

### DX Human Resource Development

#### Strengthening human capital management and organizational execution abilities

Many companies are promoting the use of DX and AI, and as part of these efforts, the development of DX human resources is attracting attention in a wide range of fields, regardless of job classifications or occupations, such as executives, managers, and technicians. As shown on the right, we are working to strengthen our DX human resources.

- We are actively engaged in career hiring and new employee hiring to strengthen our workforce of AI engineers and software engineers with immediate capabilities.
- The Digital Innovation Center and other internal personnel in R&D, manufacturing, ICT, and marketing are being trained and strengthened as DX personnel.
- In particular, with regard to the "AI Planner" part, which identifies AI issues, business issues and domain knowledge are important, and we are strengthening our internal DX training.

### Topics

#### Furukawa Electric and Aidemy Conclude Capital and Business Alliance

Joint realization spanning DX human resource development to new business development (June 2021)

In June 2021, Furukawa Electric entered into a capital and business alliance with Aidemy, Inc., in order to jointly realize activities ranging from DX human resource development to new business development. In the future, while promoting DX human resource development within the company, we will aim for further business development of both companies, including new business exploration, through joint development of AI/machine learning systems and co-creation with Aidemy based on the concept of open innovation.



For further details, please see our corporate website.  
[https://www.furukawa.co.jp/release/2021/kei\\_20210622.html](https://www.furukawa.co.jp/release/2021/kei_20210622.html) (Only available in Japanese)

# Strengthen the Foundation of ESG Management

Concerning initiatives to build stronger operating foundations in the “Furukawa G Plan 2020,” we have set the dissemination of the Group Philosophy, corporate governance enhancement, and workstyle reform and diversity & inclusion promotion as themes. In line with these themes, we recognize climate change as a critical

managerial issue for the sustainable growth of the Group and have been strengthening our response to this issue. Continuously, we recognize these themes as materialities that are important management issues for achievement of Vision 2030, and we have been strengthening the foundation of ESG management.

	-2015	2016	2017	2018	2019	2020	2021	
<b>ESG management in general</b>								
Values	▶ Formulated Furukawa Electric Group (FEG) Philosophy (2007)							
	▶ Formulated the Core Value (2015)							
						▶ Formulated the FEG Vision 2030		
Basic policy	▶ Revised the FEG CSR Code of Conduct (March, 2011)*1					▶ Partially revised the FEG CSR Code of Conduct		
	▶ Signed the United Nations Global Compact							
	▶ Revised the FEG CSR Basic Policy (March, 2011)					▶ Formulated the FEG Basic Policy on Sustainability		
						▶ Established the Corporate Sustainability Office		
	▶ Established the FEG Sustainability Committee							
<b>Corporate governance, group governance and supply chain management</b>								
Basic policy	▶ Established the Guideline on Corporate Governance (2015)							
	▶ Established the Independence Standards for the Outside Officers (2015)							
Separation of supervision and execution	▶ Introduced the executive officers system (2003)							
	▶ The Chairman became the Director without the representative right of the Board of Directors*2							
Board of Directors, Audit & Supervisory Board	▶ Increased the number of the Outside Directors (2008-)		▶ Increased the number of the Outside Directors to five as at present					
	▶ Strengthened the independency of Outside Directors							
	▶ A female Outside Director was appointed.							
	▶ A female outside Audit & Supervisory Board member was appointed.							
Evaluation of the effectiveness of the Board of Directors	▶ Started the evaluation of the effectiveness of the Board of Directors from 2015, and the summary of the result was published every year.							
	▶ As a process to evaluate the effectiveness of the Board of Directors, the Chairman conducted the interviews every year.							
Nominating/Compensation Committee	▶ Established the Nominating/Compensation Committee(2015)		▶ An outside director became chairman of the Nominating/Compensation Committee					
			▶ Revised the directors' compensation scheme*3		▶ Partially revised the directors'compensation scheme*4			
Group Governance, risk management	▶ Established the CSR Department (2007) and the Administration & CSR Division (2013)					▶ Established the Risk Management Division and the Risk Management Department		
	▶ Established the CSR and Risk Management Committee (2007)					▶ Renamed the Risk Management Committee		
Supply Chain, human rights	▶ Formulated the Furukawa Electric CSR Deployment Guidelines for Business Partners (2010)					▶ Revised the FEG CSR Procurement Guideline 3rd edition		
	▶ Formulated the FEG Human Rights Policy							
<b>Human capital management and organizational execution abilities</b>								
Basic policy	▶ Formulated the FEG Vision for Our People							
	▶ Established the Work Style Reform Project Team(2015)				▶ Reorganized the Organization & Work Style Reform Team		▶ Established the HR & Organizational Development Department	
	▶ Established the Diversity Promotion Section (2014)							
Human resource development, organizational execution abilities	▶ Started the global human resources training (2006-)							
	▶ Started the activities to transform leaderships “Furukawa Seven”							
Diversity & inclusion promotion	▶ Appointed two non-Japanese corporate vice presidents (2013)		▶ Increased the number of the non-Japanese corporate vice presidents to four		▶ Structured the non-Japanese corporate vice presidents to 3 people at present			
	▶ Appointed a female-Japanese corporate vice president (2015)					▶ Increased the number of the female-Japanese corporate vice president to two as at present		
	▶ Set FY2025 targets to support the success of women in the workplace							
Occupational Health and Safety	▶ Established the FEG Occupational Health and Safety Committee (2013)							
	▶ Announced the FEG Health Management Declaration							
<b>Environment and climate change</b>								
Basic policy	▶ Formulated the FEG Basic Environmental Policy (2008)							
	▶ Established the FEG Environment Committee (2013)							
						▶ Set the environmental targets 2030		
						▶ Formulated the FEG Environmental Vision 2050		
Climate change, information disclosure	▶ Started to answer to CDP climate change inquiries (2008-)							
	▶ Started to answer to CDP water security inquiries (2013-)							
						▶ Acquired an SBT(Science Based Targets) initiative certification		
					▶ Expressed support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)			

\*1. Combined the FEG Action Guidelines (fomulated in 2004) with the CSR Code of Conduct

\*2. Aimed for supervising execution by the management, including the President, from a non-executive position

\*3. Consisted of the basic remuneration, short-term performance-linked remuneration, and mid- to long-term performance-linked remuneration

\*4. Aimed at strengthening incentives



# Infrastructure Communications Solutions









**Hideya Morihira**  
Corporate Executive Vice President  
and General Manager of  
Communication Solutions Division

## Basic Policy for FY2021 (Zero year of FY2025 medium-term plan) (with Vision 2030 in mind)

The Communications Solutions Division will further evolve the long-cultivated communication element technology and create solutions with it. That is how the Division will contribute to make people's life safe, peaceful, and rewarding in a society that combines information, energy, and mobility.

## Business Overview / Introduction of Products

The Communications Solutions Division is made up of the Optical Fiber and Cable products Division, FITEL products Division and Broadband Solutions Business Division, and it is involved in the manufacture and sale of products for telecommunications infrastructure and the design, installation and service of telecommunications networks.

	Optical Fiber and Cable Products		FITEL Products		Broadband Solutions Business						
											
<b>Main products</b>	<ul style="list-style-type: none"> <li>Low loss fibers</li> <li>Low bending loss fibers for building/residential applications</li> <li>Special fibers</li> </ul>	<ul style="list-style-type: none"> <li>Optical cables in general (including rollable ribbon cables)</li> <li>Optical connection products</li> </ul>	<ul style="list-style-type: none"> <li>Variable wavelength laser modules (ITLA*)</li> <li>Light sources for signal optical amplification</li> </ul>	<ul style="list-style-type: none"> <li>Industrial lasers</li> </ul>	<ul style="list-style-type: none"> <li>FTTH system devices (including high-definition images and low-latency transmission systems)</li> </ul>	<ul style="list-style-type: none"> <li>Network routers</li> </ul>					
<b>Main applications</b>	<ul style="list-style-type: none"> <li>Telecommunications</li> <li>Video broadcasts</li> <li>Data centers</li> </ul>	<ul style="list-style-type: none"> <li>Telecommunications</li> <li>Video broadcasts</li> <li>Data centers</li> </ul>	<ul style="list-style-type: none"> <li>Signal sources (including digital coherent communication)</li> <li>Signal optical amplification</li> </ul>	<ul style="list-style-type: none"> <li>Cutting, welding, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Telecommunication and broadcast services</li> <li>Design and construction of transmission systems and networks</li> </ul>	<ul style="list-style-type: none"> <li>High speed, high capacity telecommunication service</li> <li>VPN construction</li> </ul>					
<b>Main customers</b>	<ul style="list-style-type: none"> <li>Telecommunications providers</li> <li>OTT</li> </ul>		<ul style="list-style-type: none"> <li>System vendors</li> <li>Transmission device manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>Industrial processing manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>Telecommunications providers (CATV providers)</li> <li>Municipalities</li> </ul>	<ul style="list-style-type: none"> <li>Telecommunication providers</li> <li>General companies</li> </ul>					

\* ITLA: Integrable Tunable Laser Assembly

## Overview of FY2020

While demand for fiber in North America was strong, the prices of optical fiber remained at low levels worldwide and the optical cable business environment continued to be competitive. Due to the COVID-19 pandemic, the reduction in construction starts and customer investment resulted in a decrease in product sales, while vacancies in staffing at some of the Group's manufacturing bases deteriorated productivity, and the currency exchange rates affected our business in South America. As a result, the Communications Solutions Division decreased sales and profits compared to FY2019.

Main Topic

## Development of laser light source products for broadband optical communications

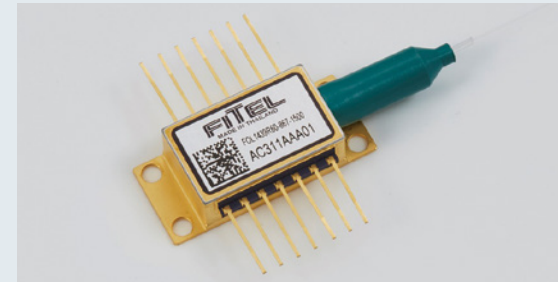
Contributing to the construction of medium- and long-range optical communication networks supporting widespread use of 5G

As laser light source products used for the broadband development of optical communications, we have developed a Micro Integrable Tunable Laser Assembly (Micro-ITLA; wavelength variable light source) for the Super C and Super L bands and the corresponding laser diode module for Raman amplifier excitation that extends the specified wavelength range.

In addition to contributing to the construction of medium- and long-range optical communication networks that support the widespread use of 5G, it is also expected to become the foundation technology that will support the all-photonics network, as included in the IOWN concept\*.



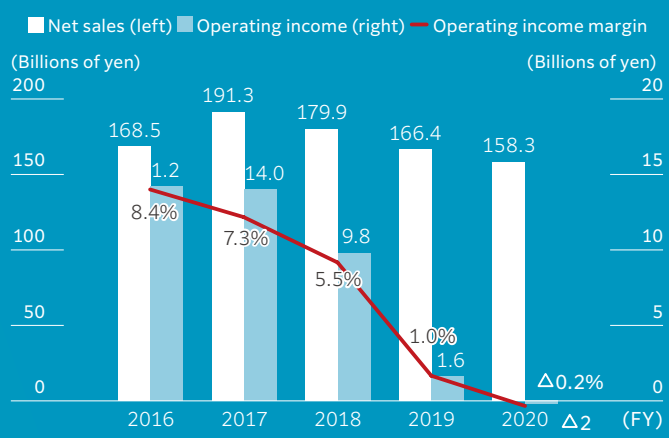
Multi-channel Micro-ITLA



Laser diode module for Raman amplifier excitation  
[https://www.furukawa.co.jp/release/2021/comm\\_20210607.html](https://www.furukawa.co.jp/release/2021/comm_20210607.html)

\* The Innovative Optical and Wireless Network (IOWN) concept is a hypothetical network and information processing infrastructure anticipated for future establishment. It would include terminals capable of providing high-speed, high-capacity communications and massive computational resources that exceed the limitations of the infrastructure to date, by utilizing innovative technologies centered on light.

### Net sales / Operating income / Operating income margin



## Strengths and Challenges

**Strengths of the Division**

- Global production bases that extend into the growing markets
- Differentiation by utilizing high-performance products and technologies (optical fiber, cable, digital coherent related, network technologies, etc.)

**Challenges and Efforts**

- Cost reduction through increased productivity
- Development of next-generation products that meet customer needs and leverage the strengths of the Group

**External Environment Key Opportunities**

- Increase in global communications traffic
- Advancement of 5G and IoT
- Changes in the social environment, driven by the COVID-19 pandemic

**External Environment Major Risks**

- Trade friction between the United States and China
- Difficulty in procurement of raw materials (semiconductor shortage, price rise, and transportation volume increase)

## Future Prospects

5G society requires high-speed, high-capacity, low latency, and simultaneous connection of multiple devices. We will develop and expand sales of products and services that meet these social needs.



# Infrastructure Energy Infrastructure



**Takamitsu Kozuka**  
Corporate Executive Vice President and  
General Manager of Energy Infrastructure Division

## Basic Policy for FY2021 (Zero year of FY2025 medium-term plan) (with Vision 2030 in mind)

As one of the core businesses of Furukawa Electric Group, the Infrastructure / Energy Infrastructure Division will strengthen SDGs-aware business development, particularly in renewable energy-related businesses, in order to secure profits for continued growth and realize businesses that contribute to society.

## Business Overview / Introduction of Products

The Energy Infrastructure Division is made up of the Power Cable Division and Industrial Cable & Power Cable Accessories Division, and it is involved in the manufacture, sale and installation of ultra-high voltage, high voltage and medium to low voltage power cable and equipment. The Power Cable Division was newly established following the reorganization in October 2016 and has steadily been developing its business base.

	Electric Power		Industrial Wires and Equipment	
<b>Main products</b>	<ul style="list-style-type: none"> <li>Ultra high voltage (220kV and higher) and high voltage (66kV and higher) underground transmission cables, accessories and installation</li> </ul>	<ul style="list-style-type: none"> <li>Submarine transmission cables and installation</li> </ul>	<ul style="list-style-type: none"> <li>Low to medium voltage power cables</li> </ul>	<ul style="list-style-type: none"> <li>Electric power distribution accessories and overhead transmission line accessories</li> </ul>
<b>Main applications</b>	<ul style="list-style-type: none"> <li>Underground power lines between power plants substations - large factories</li> <li>Renewable energy power station related (interconnections)</li> </ul>	<ul style="list-style-type: none"> <li>Submarine power cable from renewable energy power stations such as offshore wind power stations (new business domain)</li> <li>Interconnections between regions and to islands</li> </ul>	<ul style="list-style-type: none"> <li>Indoor wiring in factories, buildings.</li> <li>Wiring of the distribution board / control panel for factory facilities / equipment</li> <li>Wiring of mobile equipment</li> <li>Solar power systems</li> <li>Wiring of ship's onboard electrical equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Electrical materials for distribution lines</li> <li>Direct and branch cable connections</li> <li>Insulation and protection for connectors</li> <li>Electric power supply to railroad cars</li> </ul>
<b>Main customers</b>	<ul style="list-style-type: none"> <li>Electric power (distribution) companies, large factories</li> <li>Renewable energy source electric power companies (SPC)</li> </ul>	<ul style="list-style-type: none"> <li>Renewable energy source electric power companies (SPC)</li> <li>Electric power (distribution) companies</li> </ul>	<ul style="list-style-type: none"> <li>Construction contractors</li> <li>Electronic appliance manufacturers</li> <li>Railroad companies</li> <li>Shipbuilding companies</li> </ul>	<ul style="list-style-type: none"> <li>Electric power companies</li> <li>Construction contractors</li> <li>Railroad companies</li> </ul>

## Overview of FY2020

Sales and profits of domestic renewable energy-related projects and domestic and overseas underground line projects were strong. However, due to the COVID-19 pandemic, the domestic market environment of general-purpose lines in the construction and electronic sales market was severe, and the Chinese subsidiary experienced delays in construction work commencement, due to travel regulations and disruption in distribution systems. As a result, the Division recorded decrease in sales and profit compared to FY2019.

## Main Topic

### Accelerating efforts in the renewable energy field, contributing to achieve carbon neutrality in 2050

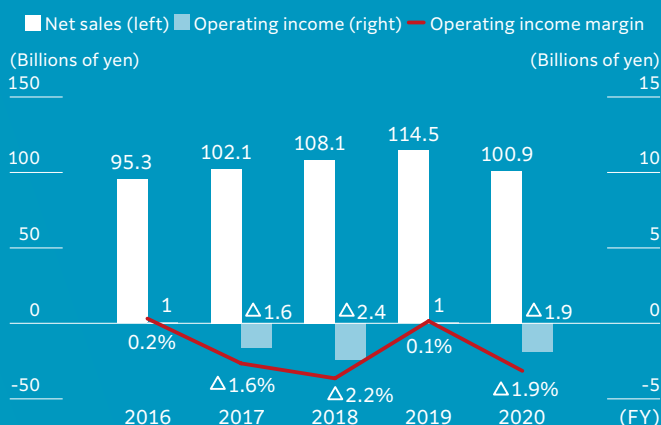
Partly boosted by the Japanese Government's Green Growth Strategy Through Achieving Carbon Neutrality in 2050, renewable energy, mainly offshore and land wind power generation, is expected to be increasingly adopted in the future. These power supply locations tend to be far away from demand areas, and the need for long-distance, high-capacity power cables to be laid on the seafloor or land for the transportation of power generation is expected to increase.

We are steadily promoting the development of DC cable systems suitable for long-distance, large-capacity transmission, including participation in the two projects of the New Energy and Industrial Technology Development Organization (NEDO): Development of Fundamental Technologies for Multi-Use Multi-Terminal DC Transmission Systems and Research and Development of Technologies for Low-Cost Floating-Type Offshore Wind Power Generation, thereby contributing to future energy mix conversion.

Note: Presentation on Furukawa's efforts at the Study Group for the Development of Long-Haul Submarine Direct Current Transmission sponsored by the Agency for Natural Resources and Energy (in Japanese only).  
[https://www.furukawa.co.jp/release/2021/ene\\_20210430\\_2.html](https://www.furukawa.co.jp/release/2021/ene_20210430_2.html)



## Net sales / Operating income / Operating income margin



## Strengths and Challenges

### Strengths of the Division

- An abundant track record of ultra-high-voltage submarine cables in Japan and overseas
- Technology development centered on the submarine cables
- High-value-added power cables utilizing polymer development technology
- High-value-added components based on polymer and metal material technology

### Challenges and Efforts

#### Short term

- Steady order receipt for renewable energy (offshore wind power) projects
- Profit improvement in the low- to medium-voltage power cable business

#### Medium to long term

- Strengthening of sale of product with services for the development of DC (wide-area interconnection) business

### External Environment Key Opportunities

- Rapid expansion in demand, particularly for renewable energy projects
- Increase in demand for products that are easy to install due to labor shortage

### External Environment Major Risks

- Delay in securing personnel necessary for business expansion
- Change in customers' timing of implementation of large-scale projects
- Supply disruption of major materials

## Future Prospects

The expanded use of renewable energy is essential for decarbonization. We will actively participate in building a more robust energy infrastructure, such as by strengthening the main lines for diversified power sources in Japan, so as to contribute to converting the future energy mix.



# Electronics & Automotive Systems

# Automotive Products & Batteries



**Shigenobu Abe**

Corporate Senior Vice President and  
General Manager of Automotive Products Division







\* The batteries business is conducted by a listed subsidiary The Furukawa Battery Co., Ltd.

## Basic Policy for FY2021 (Zero year of FY2025 medium-term plan) (with Vision 2030 in mind)

There is an increase in the number of parts used for autonomous driving and vehicle electrification in response to the technological revolution known as "CASE" (Connected, Autonomous, Shared, and Electric). In such an environment, Furukawa's Automotive Products & Batteries Division will augment customers' efforts at contributing to achievement of SDGs by building technological advantage through development of next-generation products and services, and contribute to the safety of vehicles and to the advancement of autonomous driving. In addition, from fiscal 2021 onwards, we intend to steadily generate returns on our investment in increased production, and to accumulate profit.

## Business Overview / Introduction of Products

The Automotive Products & Batteries Division is comprised of the wire harness business, the automotive products business (e.g., steering roll connectors, lead battery state detection sensors), and the battery business conducted by the listed subsidiary Furukawa Battery Co.

	Energy Infrastructure					
						
Safety	●	●	●	●		
Light weight			●	●	●	
Electrification			●		●	●
CN*	●	●	●	●	●	●
Key products	● Quasi-millimeter wave radar	● Steering roll connector (SRC)	● Lead battery state detection sensor (BSS)	● Products using flat cable	● Aluminum harnesses ● Corrosion-proof terminal (α terminal)	● High voltage products
Main applications	● Advanced driver assistance systems (ADAS)	● Connector for airbags	● Vehicle power source management	● Electricity supply and signal transmission for sliding doors and long slide seats	● Reduce the weight of vehicle wiring (W/H)	● Wiring for electric vehicles
Main customers	● Japanese automobile manufacturers	● Tier1	● Japanese automobile manufacturers	● Automobile manufacturers	● Japanese automobile manufacturers	● Japanese automobile manufacturers

\*CN: Carbon neutral

## Overview of FY2020

In the first half of fiscal 2020, we were significantly affected by the COVID-19 pandemic, through such conditions as overseas subsidiaries' temporary suspension of operations and sluggish operating rates after the resumption, and we recorded a decline in sales and profit. However, since the second half of the year, the recovery in the automotive market resulted in a recovery of profits to a level higher than expected for the entire business, including wiring harnesses.

**Main Topic**

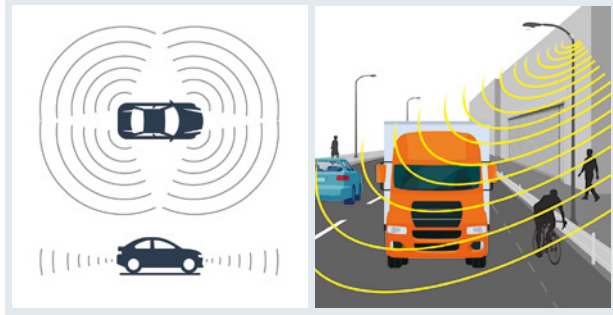
## Expanded use of submillimeter wave radars from vehicles to infrastructures

A new technology allows the use of vehicle-mounted radars in infrastructure systems, in order to help prevent traffic accidents



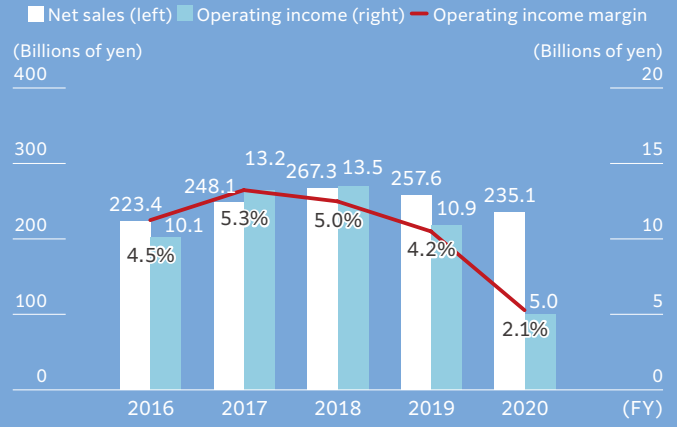
The world is waiting for the arrival of a totally safe motorized society free from traffic accidents. This is expected to become a reality in the near future through use of such technologies as self-driving automobiles, CASE, and MaaS (Mobility as a Service). Vehicle safety has always been a concern since the first automobiles were introduced, but society now faces the increasingly possibility of dangerous driving and accidents, such as drivers driving in the wrong direction on highways. The Ministry of Land, Infrastructure, Transport and Tourism has also considered infrastructures to prevent accidents in accident-prone areas on public roads in its Traffic Accident Elimination Plan (Strategic Elimination of Risky Accident Areas). Furukawa Automotive Systems has investigated using its vehicle-mounted radar technology, which leverages the strengths of the Furukawa pulse system to detect objects at a wide angle and wide range in various environment, for use in preventing traffic accidents in addition for use in systems to detect vehicles traveling in the wrong direction.

### Vehicle-mounted Radar and Infrastructure Application (Illustration)



[https://www.furukawa.co.jp/release/2020/mob\\_20201116.html](https://www.furukawa.co.jp/release/2020/mob_20201116.html)

**Net sales / Operating income / Operating income margin**



## Strengths and Challenges

<b>Strengths of the Division</b>	<ul style="list-style-type: none"> <li>➢ A well-balanced portfolio of products that corresponds to advanced technologies</li> <li>➢ Product development capabilities through the use of proprietary technologies accumulated over many years by the Group</li> <li>➢ Advantages of aluminum harnesses and α terminals</li> <li>➢ Supply chain multiplexing</li> </ul>
<b>Challenges and Efforts</b>	<ul style="list-style-type: none"> <li>➢ Strengthening of production systems in Asia</li> <li>➢ Early launch of new products</li> <li>➢ Promotion of automation worldwide and improvement of manufacturing capabilities</li> </ul>
<b>External Environment Key Opportunities</b>	<ul style="list-style-type: none"> <li>➢ New opportunities through mobility transformation</li> <li>➢ Expansion of product needs for environmentally friendly vehicles</li> </ul>
<b>External Environment Major Risks</b>	<ul style="list-style-type: none"> <li>➢ Supply chain disruption, caused by country risks and climate change risks</li> <li>➢ Decline in prices, driven by the intensifying global competition</li> </ul>

## Future Prospects

By promoting efforts toward SDGs centered on carbon neutrality, we aim to expand business and achieve profit. Specific activities include 1) expansion of sales of products related to vehicle weight reduction, power source management, and electrification (aluminum wiring harnesses, BSS®, high-pressure parts, etc.); 2) creation of new environmentally-friendly products (next-generation wiring systems, future electric wires, etc.); 3) high productivity and energy management through the use of the IoT; and 4) promotion of the use of renewable energy, including solar power generation.

# Electronics & Automotive Systems Electronics Component Materials












**Masao Terauchi**  
Corporate Vice President and  
General Manager of  
Electronics Component Materials Division

## Basic Policy for FY2021 (Zero year of FY2025 medium-term plan) (with Vision 2030 in mind)

The Electronics Component Materials Division will develop materials and supply products with performance characteristics that match customer needs in the automotive and electronics markets, and conduct clean manufacturing. We will thus contribute to solving social issues.

## Business Overview / Introduction of Products

The Electronics Component Materials Division handles electric conductors, magnet wires, and copper & high performance material products and is mainly engaged in the manufacture and sale of wires, automotive parts, and copper products for electronics device materials.

	Electric Conductors (Magnet Wires)				Copper Strips	
						
Main products	<ul style="list-style-type: none"> <li>Copper wires, aluminum wires</li> </ul>	<ul style="list-style-type: none"> <li>Oxygen-free copper wires</li> </ul>	<ul style="list-style-type: none"> <li>Fine wires</li> </ul>	<ul style="list-style-type: none"> <li>TEX (Triple insulated winding wire)</li> </ul>	<ul style="list-style-type: none"> <li>Copper products</li> <li>Thin sheets (strips)</li> </ul>	<ul style="list-style-type: none"> <li>Oxygen-free copper</li> <li>GOFC</li> </ul>
Main applications	<ul style="list-style-type: none"> <li>Various cables</li> <li>Wire harness</li> </ul> 	<ul style="list-style-type: none"> <li>Magnet wires for alternators</li> <li>Magnet wires for EV motors</li> </ul>	<ul style="list-style-type: none"> <li>Mobile phone inductors</li> <li>Relays (general use, for automobiles)</li> </ul>	<ul style="list-style-type: none"> <li>Battery charge for mobile phones</li> <li>Transformers for various power supply</li> </ul>	<ul style="list-style-type: none"> <li>Mobile phone terminals</li> <li>Anti-corrosion terminals for automobiles</li> <li>Semiconductor lead frames</li> </ul> 	<ul style="list-style-type: none"> <li>Shielding strips</li> <li>Substrates for heat dissipation</li> </ul> 
Main customers	<ul style="list-style-type: none"> <li>Electrical cable makers (internal-use)</li> </ul>	<ul style="list-style-type: none"> <li>Electrical wire makers</li> <li>Motor makers</li> </ul>	<ul style="list-style-type: none"> <li>Electronics component makers</li> </ul>	<ul style="list-style-type: none"> <li>Power source makers</li> <li>Transformer makers</li> </ul>	<ul style="list-style-type: none"> <li>Terminal makers</li> <li>Semiconductor component makers (internal-use)</li> </ul>	<ul style="list-style-type: none"> <li>Electrical cable makers</li> <li>Heat pipe makers (internal-use)</li> </ul>

## Overview of FY2020

In the first half, sales of automotive, construction, and electric appliances-related products fell, affected by the COVID-19 pandemic. Since the second half, demand has recovered, particularly for automotive and electronics-related products. However, the Division recorded a decrease in sales and profit for the full year due to the significant impact of the decline in sales up to the first half, and the impact of the business reorganization (transfer of the copper tube business and the reorganization of a part of the wire business). Both businesses fell out of the scope of consolidation.



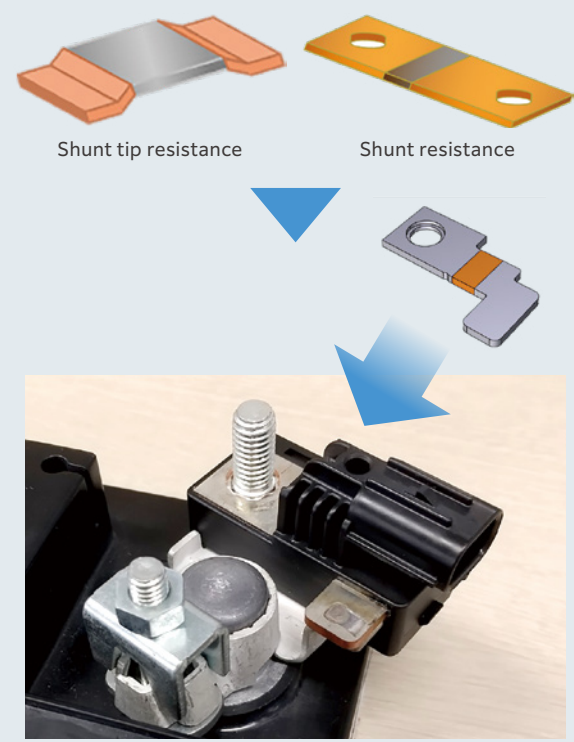
Main Topic

### High-precision current control contributes to energy savings

Resistors are used as current control components in various electronic devices that enrich our lives. A high-precision current detection technology for resistors is essential to control the heat generation of circuits.

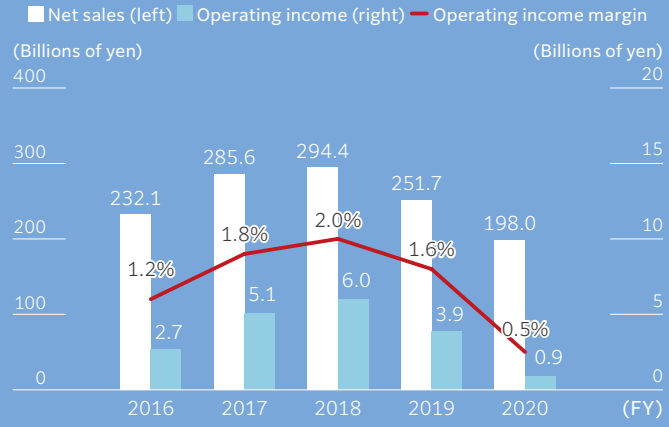
We have developed materials that correspond to various types of electrical resistance ratios used for current detection, and provide them in various forms, including strips, plates, round and flat angle lines. We product these high-precision resistance materials in integrated manufacturing.

In order to realize a low-carbon society, resistors that can help conserve more energy are required, and we are committed to meeting the growing demand for resistance materials in the future.



Application example: BSS® (Lead Battery State Sensor)

### Net sales / Operating income / Operating income margin



### Strengths and Challenges

<b>Strengths of the Division</b>	<ul style="list-style-type: none"> <li>&gt; Material development and proposal capabilities tailored to customer needs</li> <li>&gt; Provision of high-performance, high-quality, oxygen-free copper and copper alloy products</li> <li>&gt; Production system for copper strip products using renewable energy from hydroelectric power generation</li> </ul>
<b>Challenges and Efforts</b>	<ul style="list-style-type: none"> <li>&gt; Being mindful of cash flow in manufacturing</li> <li>&gt; Expansion of sales of differentiated products for automobiles and communications infrastructure</li> <li>&gt; Expansion of sales of alloys for medical devices</li> <li>&gt; Facility maintenance and renewal start-up</li> </ul>
<b>External Environment Key Opportunities</b>	<ul style="list-style-type: none"> <li>&gt; Increase in demand that stems from vehicle electrification and automatic driving</li> <li>&gt; Increased requirement for non-magnetic and heat dissipation characteristics to satisfy increased data traffic</li> <li>&gt; Increased needs in minimally invasive medical treatment</li> </ul>
<b>External Environment Major Risks</b>	<ul style="list-style-type: none"> <li>&gt; Needs for alternative materials due to rising prices of raw materials and precious metals</li> <li>&gt; Impact on supply chain due to natural disasters and political factors</li> </ul>

### Future Prospects

Vehicle electrification and automatic driving in the automotive market and an increase in data traffic resulting from 5G/B5G (Beyond 5G), IoT, and AI in the communications and electronics market, will expand demand for semiconductors and electronic components, and a wide range of properties will be required in essential materials. To meet the needs of our customers, we will make value-added proposals that take advantage of our development capabilities.



# Functional Products



**Ryoji Ono**

Corporate Senior Vice President and  
General Manager of Functional Products Division

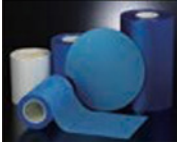
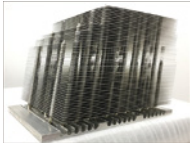
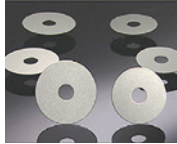
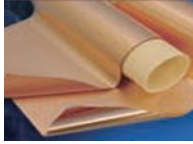
\* This segment includes businesses of a listed subsidiary TOTOKU Electric Co., Ltd., etc.

## Basic Policy for FY2021 (Zero year of FY2025 medium-term plan) (with Vision 2030 in mind)

In the era that we have to cope with the COVID-19 pandemic, the Functional Products Division will offer differentiated products to the expanding market through development and manufacturing that enable us to respond quickly and flexibly to market condition.

## Business Overview / Introduction of Products

The Functional Products Division is made up of the AT (Advanced Technology Tape) & Functional Plastics Division, Thermal Management Solution & Products Division, Memory Disk Division and Copper Foil Division, and it is involved in the manufacture and sale of functional products made from plastics and nonferrous metals.

	AT & Functional Plastics	Thermal Management Solution & Products	Memory Disk	Copper Foil	
					
Renewable energy		●			
Communication infrastructure	●	●	●	●	
Disaster prevention and reduction		●			
Main products	<ul style="list-style-type: none"> <li>● Tape for semiconductor process</li> </ul>	<ul style="list-style-type: none"> <li>● Cable protective pipes</li> <li>● Troughs made from recycled materials</li> <li>● Insulation materials</li> </ul>	<ul style="list-style-type: none"> <li>● Copper, etc. including heat sinks and heat pipes</li> </ul>	<ul style="list-style-type: none"> <li>● Aluminum blanks for HDD</li> </ul>	<ul style="list-style-type: none"> <li>● Electrolytic copper foil for printed wiring boards</li> <li>● Electrolytic copper foil for batteries</li> </ul>
Main applications	<ul style="list-style-type: none"> <li>● Surface protection, immobilizing, etc. during semiconductor wafer processing</li> </ul>	<ul style="list-style-type: none"> <li>● Protective pipes for underground cable</li> <li>● Troughs for holding cables</li> <li>● Insulation for air conditioning ducts</li> </ul>	<ul style="list-style-type: none"> <li>● Heat dissipation and cooling of CPUs and power semiconductors, electronics components, high output LED lighting, etc.</li> </ul>	<ul style="list-style-type: none"> <li>● HDD for use in data centers, desktop PCs and monitoring cameras</li> </ul>	<ul style="list-style-type: none"> <li>● Circuit boards for communication devices and electronic</li> <li>● Negative electrode materials for lithium ion batteries used for EVs, mobile phones, power tools, etc.</li> </ul>
Main customers	<ul style="list-style-type: none"> <li>● Semiconductor manufacturers</li> <li>● Foundry manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>● General construction companies and subcontractors</li> <li>● Railroads</li> <li>● Highway public corporations and road subcontractors</li> <li>● Air conditioning duct manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>● Data center operators</li> <li>● telecommunications base station operators</li> <li>● Smartphone, PC manufacturers</li> <li>● Manufacturers of power conditioners for railroads and solar power</li> <li>● Lighting equipment manufacturers, etc.</li> </ul>	<ul style="list-style-type: none"> <li>● HDD substrate manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>● Circuit board material makers</li> <li>● Lithium ion battery makers</li> </ul>

## Overview of FY2020

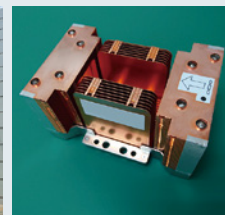
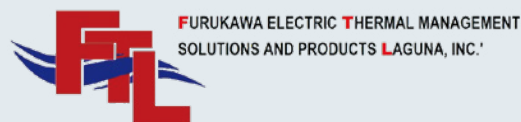
The Thermal Management Solution & Products Division experienced strong demand for data center-related products, while the AT & Functional Plastics Division had a decline in demand for functional plastic products due to a curbing of the start of construction work in Japan, caused by the COVID-19 spread. The Copper Foil Division was still in the process of recovery from the fire that occurred at the Taiwan subsidiary in 2019 and faced sluggish demand for copper foils for automotive batteries in the first half. As a result, the overall segment recorded a decline in sales and profit.

## Main Topic

### Full-scale mass production began in the Philippines in fiscal 2021, as a new flagship plant for heat-dissipating and cooling products for U.S. data centers

Contributing to the growth markets through stable production plans that respond to the growing and changing international procurement demand

As a new flagship plant for heat-dissipating and cooling products for U.S. data centers, the Philippine Plant was constructed in 2019, and it was decided to make additional investment in 2020, after which it began full-scale mass production in the summer of 2021. In the growing data center market, we will help realize a production system that responds to the diversified international procurement needs, establish a stable product supply network, and contribute to the growth of the global information and communications society.



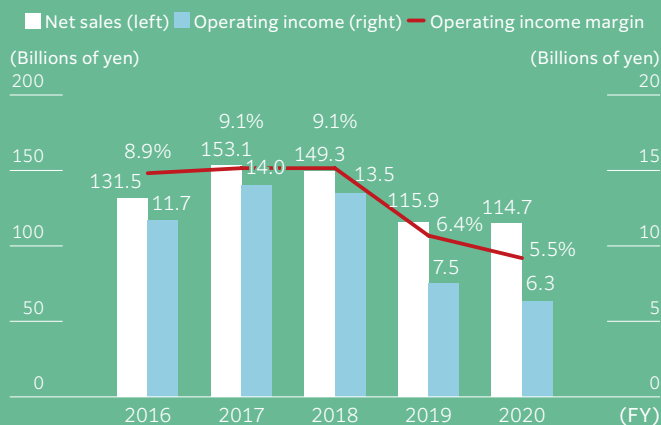
Heat pipe type heat sink



FURUKAWA ELECTRIC THERMAL MANAGEMENT SOLUTIONS AND PRODUCTS LAGUNA, INC.

[https://www.furukawa.co.jp/release/2021/fun\\_20210427.html](https://www.furukawa.co.jp/release/2021/fun_20210427.html)

## Net sales / Operating income / Operating income margin



## Strengths and Challenges

### Strengths of the Division

- Advanced technology development capability for high-performance products
- Fast, detailed, integrated services of technology and sales

### Challenges and Efforts

- To sustain and improve design and development capabilities that continue to create technological differentiation
- Optimization of bases, taking into account BCP
- Recovery of the copper foil plant from the fire in Taiwan

### External Environment Key Opportunities

- Increase in demand for communications infrastructure, driven by growth in data traffic from the proliferation of 5G
- Contributing to the realization of a sustainable society

### External Environment Major Risks

- Change in supply chain due to political factors (including geopolitical risks)
- Global economic recession, driven by natural disasters, new pathogens and viruses, etc.

## Future Prospects

The growth of data traffic and the proliferation of 5G will continue to drive demand for the communications infrastructure market. We will respond rapidly to changes in customer demand, continue to develop and provide high-performance (differentiated) products, contribute to the realization of a sustainable society by developing products for Society 5.0 for SDGs, and expand the new product area, which will serve as the next-generation revenue source.

# Directors and Audit & Supervisory Board Members

(as of June 24, 2021)

## Directors



**Mitsuyoshi Shibata**

Chairman of the Board  
Director



**Keiichi Kobayashi**

President  
Representative Director



**Osamu Tsukamoto**

Director (Outside, part-time)



**Hiroyuki Ogiwara**

Representative Director  
Corporate Senior Executive Vice  
President,  
General Manager, Corporate  
Strategy & Direction Division



**Osamu Kuroda**

Director  
Corporate Senior Vice President,  
General Manager,  
Global Marketing Sales Division



**Satoshi Miyamoto**

Director  
Corporate Senior Vice President,  
General Manager, Business Basis  
Transformation Division

## Audit & Supervisory Board Members



**Nozomu Amano**

Audit & Supervisory Board Member  
(Full-time)



**Takahiro Kashiwagi**

Audit & Supervisory Board Member  
(Full-time)



**Yoshiaki Mizota**

Audit & Supervisory Board Member  
(Full-time)



**Kunihiko Sakai**

Audit & Supervisory Board Member  
(Outside, part-time)



**Sayaka Sumida**

Audit & Supervisory Board Member  
(Outside, part-time)



**Takao Shiomi**

Audit & Supervisory Board Member  
(Outside, part-time)





**Takashi Tsukamoto**

Director (Outside, part-time)



**Yoshiro Miyokawa**

Director (Outside, part-time)



**Yukiko Yabu**

Director (Outside, part-time)



**Tamotsu Saito**

Director (Outside, part-time)



**Akihiro Fukunaga**

Director  
Corporate Senior Vice President,  
General Manager, Finance & Global  
Management Division

## Corporate Vice Presidents

Corporate Executive Vice President	Takamitsu Kozuka	General Manager, Energy Infrastructure Division
	Foad Shaikhzadeh	President, Furukawa Electric LatAm S.A (Brazil)
Corporate Senior Vice Presidents	Tetsuro Ijichi	General Manager, Research & Development Division
	Ryoji Ono	General Manager, Functional Products Division
	Shigenobu Abe	General Manager, Automotive Products Division
	Masako Tanaka	Deputy General Manager, Business Basis Transformation Division
Corporate Vice Presidents	Jun Goto	Managing Director, Furukawa (Thailand) Co., Ltd. (Thailand)
	Jozsef Takacs	CEO, Trocellen GmbH (Germany)
	Gyula Besztercey	President, Furukawa Electric Institute of Technology Ltd. (Hungary)
	Masao Terauchi	General Manager, Electronics Component Material Division
	Takashi Fukuda	General Manager, ICT Strategy Planning Department, Business Basis Transformation Division
	Toru Fukushima	CEO, SuperPower Inc. (US)
	Kiyotoshi Nagai	Executive Vice President, OFS Fitel, LLC (US)
	Keiichiro Urakami	General Manager, Chubu Branch, Global Marketing Sales Division
	Teruyoshi Uchida	General Manager, MONOZUKURI Innovation Division
	Michihiro Shimada	General Manager, Incubator Department, Research & Development Division
	Toshio Yanagi	General Manager, Risk Management Division
	Hideya Moridaira	General Manager, Communications Solutions Division
	Yoshio Masutani	Deputy General Manager, Corporate Strategy & Direction Division
	Eiichi Nishimura	General Manager, Power Cable Division, Energy Infrastructure Division
	Toshihiko Ota	General Manager, FITEL Products Division, Communications Solutions Division
	Takashi Yamamoto	General Manager, Copper & High Performance Material Products Division, Electronics Component Material Division
Mami Masuda	General Manager, Investor Relations Department, Finance & Global Management Division and General Manager, Public Relations Department, Business Basis Transformation Division	

## Senior Fellow

Senior Fellow	Akihiko Kasukawa	Senior Fellow, Telecommunications & Energy Laboratories, Research & Development Division
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## Message from an Outside Director



I would like Furukawa Electric to further advance its corporate culture, strategy, and organization to create innovation and growth strategies by smartly taking risks.

Takashi Tsukamoto  
Outside Director

### Having a chairperson who is in a neutral position is a unique feature of the Furukawa Board

Furukawa Electric has been working at building a system of effective corporate governance from early on. With regard to the composition of the Board of Directors, we have five outside directors, which is only one less than the number of internal directors. We also have one female outside director and one outside Audit & Supervisory Board member. The skill matrix of the management team shows diverse backgrounds, including legal, accounting, and international management. I believe that we are steadily moving toward the right direction we have aimed at.

The Board of Directors, consisting of such diverse members, has very active, constructive discussions. Outside directors give straight, wide-ranged opinions and questions, as well as harsh comments occasionally, and I feel that deep discussion is being conducted through a frank exchange of opinions with the executives. Those who have been newly appointed as outside directors were amazed by our vigorous debates, not seen in other companies.

In order to encourage vigorous discussion at the Board, the chairperson plays a critical role of managing discussions. While cases of appointing an outside director as chairperson appear to be seen not only in the U.S. and European companies but also in Japan recently, the chairperson of the Board of Directors is expected to develop an agenda and lead discussions based on deep knowledge of the business, knowledge such as concerning business strategy, growth

strategies, and risks associated with the business. In case of Furukawa Electric, Mr. Shibata, who has experience as its top executive officer, serves as the Board's chair, and is the point of contact between execution and governance. Because he is in a neutral position while being the chair and a non-executive director without the right of representation right, he runs the Board from a viewpoint that is not biased toward the execution side or the outside officers' side. I understand that some people may suspect that only the agenda items that are convenient to the company would be raised if the chairperson with the experience of its executive officer presides over the proceedings of the Board. I believe that this is not the case at Furukawa Electric. We respond appropriately to requests from stakeholders of the capital market, as outside directors, including myself, and we exchange opinions regarding the selection of agenda items and even propose issues to be discussed if needed. We may also draw up a meeting agenda that reflects issues raised by institutional investors and analysts concerning Furukawa Electric. We intend to also listen more than before to the opinions of important stakeholders other than shareholders, such as employees, suppliers, and local communities in the future.

### Active Discussions at the Board of Directors, the Nominating/Compensation Committee, and the Outside Officers Meeting

The inclusion of opinions of diverse stakeholders naturally leads to the promotion of environmental (E) and social (S) challenges. Since Furukawa Electric Group was originally engaged in the copper business, it

has been keenly aware of ESG issues, and the Board of Directors always incorporates the perspectives of ESG and materiality in its discussions.

Concerning environmental (E) initiatives, we announced Furukawa Electric Group Environmental Vision 2050 in March 2021. We find it important to establish a framework that allows young generations who will be Furukawa's future leaders to be enthusiastic about this and make a commitment beyond the current management and managers, in order to firmly realize the vision in the future. We are currently discussing ways to further embody the path toward 2050 and to disseminate our philosophy within the company.

In addition to solving environmental (E) and social (S) problems that stem from our operations, we have to help solve the challenges that the world is facing today with regard to climate change and society. For this purpose, it is critical that we leverage our Group's advanced technology to draw a reliable, shared scenario for the future and design our value-creating story. In my view, the role of the outside directors is to promote the commercialization process that matches the technology born in the working field with the needs of society, and to continuously monitor it, thereby enabling the organization to establish a framework for value-creating scenarios and new business models. I would like to support Furukawa Electric's sustainable business to solve environmental (E) and social (S) issues while taking into proper account important elements, such as the management environment and the nature of organizational culture that encourages smart risk-taking, and the incentive plan (compensation).

Over the past few years, we have made efforts to strengthen management with an emphasis on business transformation and capital efficiency and have been reviewing low-margin businesses, for example, in the context of business portfolio strategy. We used to review the portfolio based on return on operating assets, but we have decided to use ROIC and FVA (Furukawa Value Added) as new management indicators so as to raise our group-wide awareness of capital costs. While the promotion of ROIC and FVA is said to increase the risk of shrinking equilibrium, we intend to incorporate measures to offset such negative aspects in a well-balanced manner, increase the profitability of each business, and review our portfolio with a sense of agility and speed.

I am the chairperson of the Nominating/Compensation Committee, where we actively discuss the development of future management personnel in addition to the succession plan. As digital savvy personnel and global experienced personnel will be key to our innovation in a variety of fields, we need to increasingly develop and strengthen our people in a

planned manner. This is also an extremely important theme in the sense of nurturing the next generation of managers. The Nominating/Compensation Committee aims to steadily help develop various levels of the workforce as a portfolio of human resources who will be responsible for the next generation of management, taking into account not only their business field but also their diversity in gender, nationality, and other criteria. We also discuss promoting young people for the rejuvenation of the management team. In addition, in the current era of VUCA (Volatility, Uncertainty, Complexity and Ambiguity), I find it important to discover and develop sharp, unconventional, out-of-box personnel who can develop various promising breakthrough technologies.

Concerning the ESG element in executive compensation, I would like to put it on the agenda in the future. I believe we need to discuss how to incorporate long-term incentives that are important to ESG management, beside raising the performance-related compensation ratio.

Furukawa Electric's outside officers routinely hold their meetings with the intent of helping deepen the discussion of the Board of Directors. Being the chair of this Outside Officers Meeting, I listen to opinions of other outside directors and outside audio & supervisory board members regarding the review of management issues to be discussed at the Board meetings, evaluation of the quality of discussions, and the speed of management, etc. I then regularly provide these opinions and requests to the executive officers at the Board meeting. For example, at the Outside Officers Meeting, an opinion that our Group should be managed with more awareness of being a global company was raised. Based on this opinion, the Board of Directors is currently discussing how to build a system to strengthen global governance and achieve further growth.

### **Aiming for Furukawa Electric to be highly evaluated in society**

While making the best of of the tradition of Furukawa Electric's Board of Directors—to conduct very active discussions—I think that the Board of Directors should shift a little bit from "balancing the brake and the accelerator" to "using the accelerator." In particular, I would like the Group to use its numerous excellent technologies, commercialize them to create new business models, and continue this virtuous cycle. This is because I firmly believe that this would lead the Group to solve materiality issues, contribute to the SDGs, and be highly respected in society as it deserves to be. As one of the outside directors, I will make my best efforts to help Furukawa Electric further advance its corporate culture, strategy, and organization to create innovation and growth strategies by astutely taking risks.

# Corporate Governance

## Basic Views on Corporate Governance

Based on the “Furukawa Electric Group Philosophy”, Furukawa Electric Co., Ltd. and Furukawa Electric Group secure the transparency and fairness and strive to enhance its performance by promptly responding to changes in the business environment and the market through efficient management based on prompt decision making. At the same time, we ensure sound management by establishing and strengthening an internal control system and applying it effectively. We uphold the basic policy of seeking to expand and develop our operations on a sustainable basis and to raise corporate value through these efforts. In accordance with the

following views, we seek to strengthen and enhance our corporate governance.

- |      |  |
|------|--|
| i.   | We secure the rights and equal treatment of shareholders.  |
| ii.  | We consider interests of stakeholders including shareholders, and cooperate appropriately with them.   |
| iii. | We ensure appropriate information disclosure and transparency.   |
| iv.  | Given its fiduciary responsibility and accountability to shareholders, the board of directors carries out effective oversight of management from objective standpoint, respecting the independent directors' role for the oversight. |
| v.   | We engage in constructive dialogue with shareholders who have investment policies in accordance with interests of mid- to long-term shareholders.  |

## Guideline on Corporate Governance

Based on the “Basic Views on Corporate Governance,” we adopted the “Guidelines on Corporate Governance”

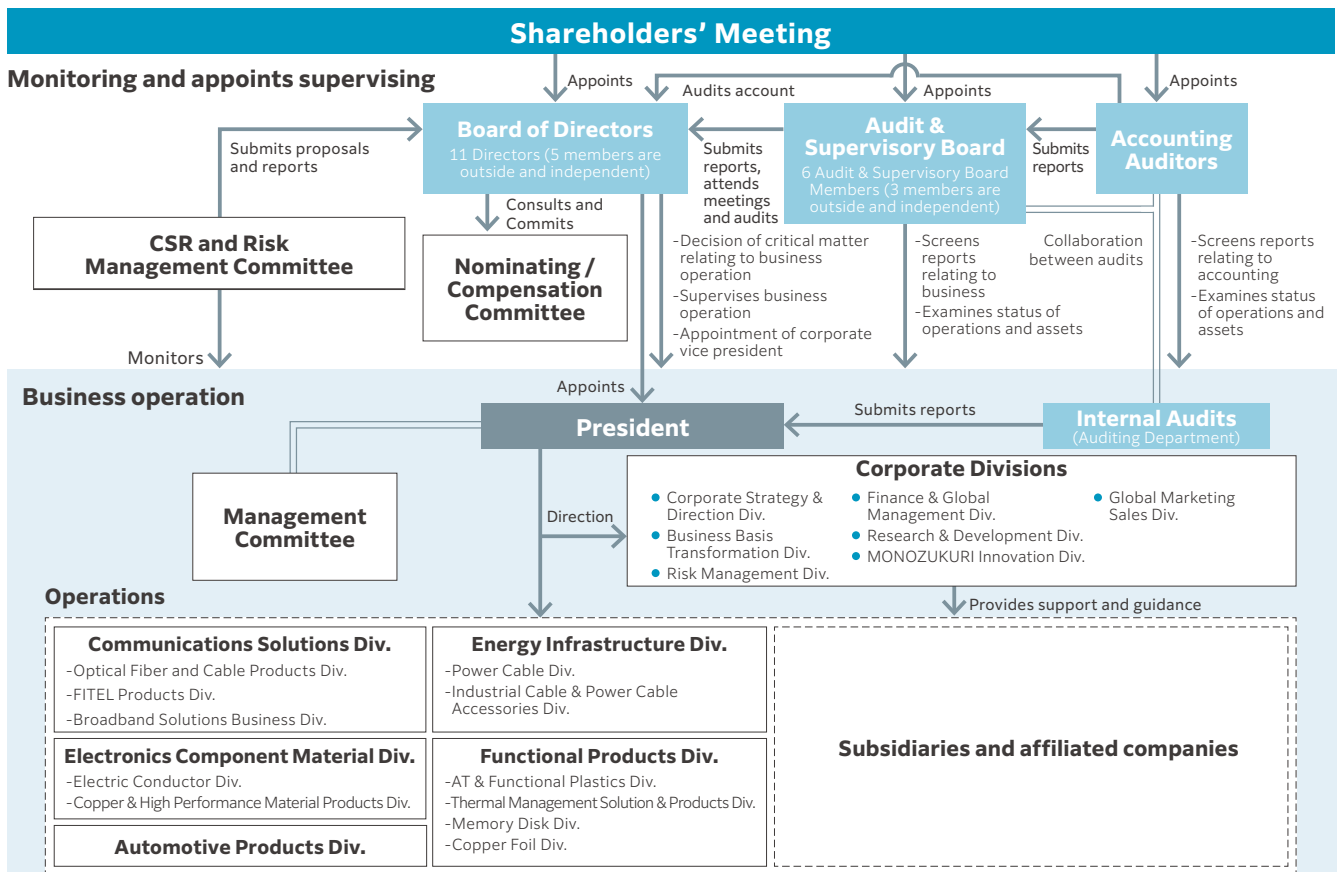
as a policy to enhance corporate governance.

## Corporate Governance System

We consider that the effectiveness of the audit on the execution of the duties by the Directors is secured, based on the coordination with the accounting auditors and the internal auditing department, while maintaining the institutional independence of the Audit & Supervisory Board Members and of the Audit & Supervisory Board

from the Board of Directors. We have therefore adopted the current “Audit & Supervisory Board” type of the corporate governance structure. In addition, we have a “Nominating/Compensation Committee,” majority members of which are outside directors to complement oversight function of the Board.

Corporate governance organization chart



\* CSR and Risk Management Committee changed its committee name to Risk Management Committee. The Sustainability Committee was also established to consolidate discussions on sustainability within Furukawa Electric Group and further enhance the quality and speed of implementation thereof.

(As of June 24, 2021)

## Board of Directors

Given its fiduciary responsibility and accountability to shareholders, the board is responsible for promoting sustainable corporate growth and the increase of corporate value over the mid- to long-term and enhancing earnings capability and capital efficiency. The board oversees and determines the matters listed below:

1. Determination of corporate governance-related matters
2. Establishment and amendment of business strategies and oversight of execution of such strategies and plans by management
3. Setting capital allocation policy
4. Appointment and dismissal of executives including representative director and corporate vice president, and determination of the compensation of them (including delegating these to Nominating/Compensation Committee)
5. Establishment of an internal control system relating to compliance and financial reporting and risk management systems, and oversight of them
6. Decision on important business matters
7. Others prescribed by the applicable laws and regulations etc.

At present, Furukawa Electric's Board of Directors consists of 11 Directors, five of whom are Outside Directors (all independent officers). The Board is chaired by the Chairman, who is a non-executive director without the representative right of the Board of Directors.

In fiscal 2020, 17 Board of Directors meetings were held and the Directors made important decisions on

## Audit & Supervisory Board

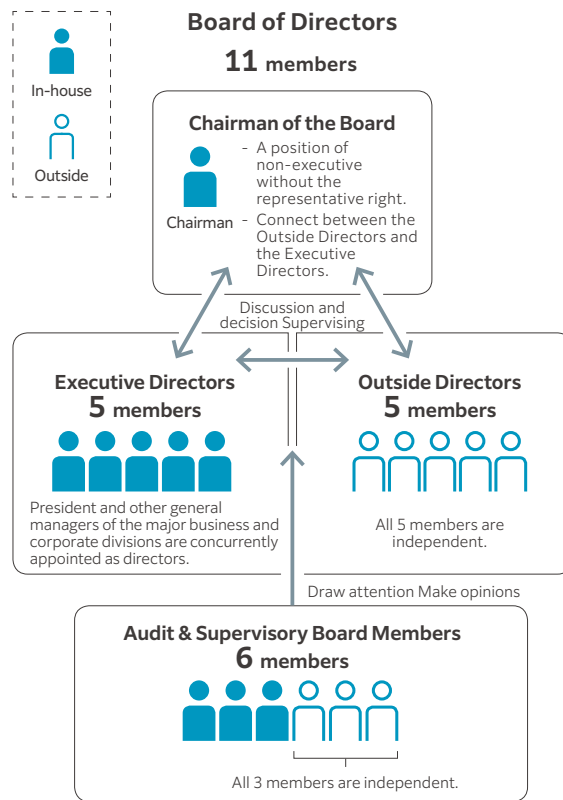
Audit & Supervisory Board and each its member auditor collect information about management under statutory investigation authority and report and express their views to the board meetings and the management from an independent and objective standpoint as a fiduciary to shareholders. Auditors ensure coordination with internal audit department through regular meetings, and report the policy, plan and result of auditing to the board regularly.

Full-time auditors attend the meetings such as

## Nominating/Compensation Committee

The Nominating/Compensation Committee consists of five or more members selected from among the Directors by the Board of Directors, with a majority of the members being Outside Directors. The committee deliberates succession plans for officers and the president/CEO, officer compensation and other matters, aiming to ensure objectivity and transparency regarding these matters and to enhance corporate governance.

At present, the Nominating/Compensation Committee consists of seven members, five of whom, including the Committee Chair, are Outside Directors. Committee meetings were held. Apart from



(As of June 24, 2021)

the execution of operations, checked the progress of the mid-term management plan and the management goals, such as the annual budget, and deliberated corporate governance and other basic management matters.

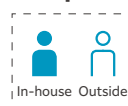
Management Committee which decides major business matters, and they report information obtained from these audit activities to the part-time and outside auditors. We strengthen our audit function by appointing an assistant staff to the auditors who is dependent of management.

At present, the Audit & Supervisory Board consists of 6 members (3 members are outside and independent).

In fiscal 2020, eight Audit & Supervisory Board meetings were held.

## Nomination/Compensation Committee

Committee  
7 directors



Chairman: Outside Director

(As of June 24, 2021)



## View Concerning Candidates for Members of the Board of Directors

### Policy on Nominating Candidates for Directors

With respect to board members (Directors and Audit & Supervisory Board Members), the Company believes that their skills, knowledge and experience, as well as multiple views from diverse board members, in terms of gender and

international experience, contribute to the Group's global business operations and appropriate oversight/auditing. Based on this perception, the Company selects candidates for board members as follows:

▶ **Candidates for Outside Director:** The Group should select a well-balanced mix of people with various skills and backgrounds, such as persons with experience in corporate management and public policy, engineers with technological expertise, and experts in law, accounting, or other areas.

▶ **Candidates for Director:** In light of the consideration of the Furukawa Electric Group's business of having many affiliates around the globe and various business lines, the Group should select persons who have a sufficient skill set, knowledge and experience so that they will contribute to improving the Furukawa Electric Group's corporate value

## Principal Activities and Skill Matrix of both Directors and Audit & Supervisory Board Members

### Directors

	Name	Independent Officer	Position in Furukawa Electric	Term of Office	FY2020 Attendance	
					Board of Directors (Attendance rate)	Nominating / Compensation Committee (Attendance rate)
1	Mitsuyoshi Shibata		Chairman of the Board	11	17 out of 17 (100%)	7 out of 7 (100%)
2	Keiichi Kobayashi		President and Representative Director	6	17 out of 17 (100%)	7 out of 7 (100%)
3	Osamu Tsukamoto	●	Director (Outside, part-time)	8	17 out of 17 (100%)	7 out of 7 (100%)
4	Takashi Tsukamoto	●	Director (Outside, part-time)	—*1	17 out of 17 (100%)*2	—
5	Yoshiro Miyokawa	●	Director (Outside, part-time)	2	17 out of 17 (100%)	7 out of 7 (100%)
6	Yukiko Yabu	●	Director (Outside, part-time)	2	17 out of 17 (100%)	7 out of 7 (100%)
7	Tamotsu Saito	●	Director (Outside, part-time)	—	—	—
8	Hiroyuki Ogiwara		Representative Director and Corporate Senior Executive Vice President	7	17 out of 17 (100%)	—
9	Osamu Kuroda		Director and Corporate Senior Vice President	4	17 out of 17 (100%)	—
10	Satoshi Miyamoto		Director and Corporate Senior Vice President	2	16 out of 17 (94.1%)	—
11	Akihiro Fukunaga		Director and Corporate Senior Vice President	2	17 out of 17 (100%)	—

\*1. His term of office as the Audit & Supervisory Board member was four years.

\*2. Attendance to Board of Directors Meeting as the Audit & Supervisory Board member

### Audit & Supervisory Board Members

	Name	Independent Officer	Position in Furukawa Electric	Term of Office	FY2020 Attendance	
					Board of Directors (Attendance rate)	Audit & Supervisory Board Meeting (Attendance rate)
1	Nozomu Amano		Audit & Supervisory Board Member (Full-time)	3	17 out of 17 (100%)	8 out of 8 (100%)
2	Takahiro Kashiwagi		Audit & Supervisory Board Member (Full-time)	3	17 out of 17 (100%)	8 out of 8 (100%)
3	Yoshiaki Mizota		Audit & Supervisory Board Member (Full-time)	2	17 out of 17 (100%)	8 out of 8 (100%)
4	Kunihiko Sakai	●	Audit & Supervisory Board Member (Outside, part-time)	3	17 out of 17 (100%)	8 out of 8 (100%)
5	Sayaka Sumida	●	Audit & Supervisory Board Member (Outside, part-time)	1	12 out of 12 (100%)*3	7 out of 7 (100%)*3
6	Takao Shiomi	●	Audit & Supervisory Board Member (Outside, part-time)	—	—	—

\*3. Ms. Sayaka Sumida was newly elected at the 198th Annual Shareholders Meeting, their meeting attendance numbers differ from those of other Outside Audit & Supervisory Board Members.



## Implementation Procedure for the Evaluation of the Effectiveness of the Board of Directors

For the purpose of improving the function of the Board of Directors, we have been working on analyzing and evaluating the effectiveness of the Board of Directors every year since fiscal 2015. Through this continuous process, necessary measures are taken in order to improve issues or further reinforce strengths reported through the verification of the suitability of the Board of Directors' functions.

Since fiscal 2017, in addition to having a questionnaire filled in by all members of the Board of Directors and the Audit & Supervisory Board Members, an individual interview has been conducted by the Chair of the Board (an interview with the Chairman is conducted by an Outside Officer other than the Chair), for the purpose of providing a deeper understanding of the responses to the questionnaires. More substantive analysis and evaluation have thus been implemented.

### Evaluation Items on the Effectiveness of the Board of Directors

Effectiveness of the Board of Directors

Management of the Board of Directors

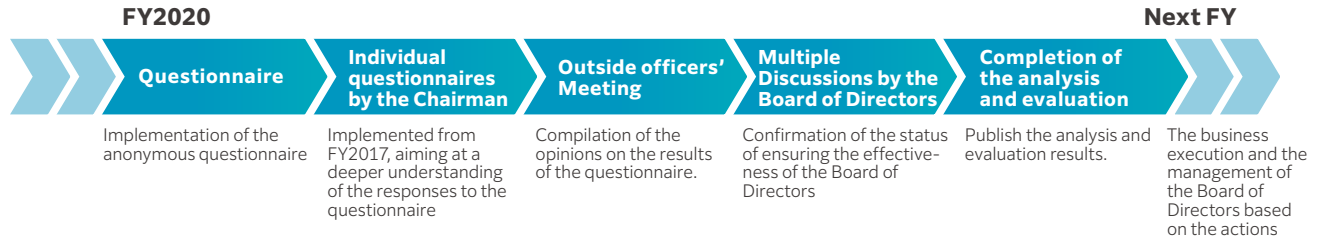
System related to support and cooperation with the Outside Officers

Roles and expectation for the Audit & Supervisory Board Members

Relationship with the shareholders and other stakeholders

Others  
(The Board of Directors in general, individual and peer evaluation, responsibility of the Board of Directors)

### Flow of the Board of Directors Effectiveness Evaluation



## Results of the Evaluation of the Effectiveness of the Board of Directors and Future Initiatives

Given the results of the effectiveness evaluation of the previous year, the Board of Directors continued to implement measures to further improve its effectiveness and worked on analyzing and evaluating it again in fiscal 2020. As a result of

discussion with due consideration to many proposals and opinions from Directors and Audit & Supervisory Board Members, we have decided to make further improvements regarding the following items.

Item	Future initiatives based on the results of analysis and evaluation for FY2020
<b>The appropriateness of the allocation of business execution authority between the Board of Directors and the business execution side</b>	Establish a more detailed plan for the annual agenda and ensure sufficient time for deliberation of important agenda items, in addition to reviewing the proposal criteria of the Board of Directors to enhance the monitoring functions of the Board and to increase the weight of the agenda on medium- to long-term growth strategies.
<b>Medium-term management plan, business portfolio review, group and global management</b>	Enhance discussions on medium- to long-term growth strategies in light of changes in the business environment, including the COVID-19 pandemic. Also enhance discussions of the next medium-term management plan, including the desired business portfolio to realize Vision 2030 as well as medium- to long-term direction of each business area.
<b>Provision of information to outside officers</b>	Enhance the amount and quality of information that is essential for discussion to be provided to outside directors by sharing periodic monitoring materials on the Company's business environment, etc. This is to enhance discussions on medium- to long-term growth strategies. In an effort to obtain appropriate involvement and advice of outside officers on the Board of Directors, hold pre-briefing sessions for outside directors, and provide opportunities for them to deepen understanding of each agenda item in advance.
<b>ESG and SDGs related</b>	Continue to strengthen the foundation of ESG management, and enhance discussions at the Board of Directors toward realizing Vision 2030.
<b>Dialogues with stakeholders</b>	Continue dialogues with shareholders and investors and report to the Board of Directors. In addition, report opinions of all non-shareholder stakeholders, including employees, to the Board to further enhance discussions.



Details of the overview of the results of the Board of Directors' effectiveness assessment are available on the corporate website section "Corporate Governance."

<https://www.furukawa.co.jp/company/governance.html> (Only available in Japanese)

# Design of Programs for Directors' and Officers' Remuneration

## Policy for Directors' and Officers' Remuneration

The Company has the following policy for the directors and officers remuneration, which is determined by the Nomination/Compensation Committee.

The remuneration of directors and officers shall be determined in a way that encourages each officer to exert his/her abilities to the maximum level and proactively fulfill his/her duties, so that the Company Group will increase its corporate value and achieve sustainable growth while contributing to society through its business activities.

Based on the policy, the committee confirms validity, effectiveness and appropriateness of plan design and level of remuneration every year, by means of outside survey that is comparing the Company's remuneration level with those of other similar size 30 manufacturing companies.

## Outline of the Directors and Officers Remuneration

The remuneration of the Company's directors and officers is comprised of basic remuneration, short-term performance-linked remuneration and mid-to-long term performance-linked remuneration. The performance-linked remuneration is paid to directors except an outside director and non-

director officers and senior fellows. The performance-linked remuneration will account for approximately 30% to 50% of total remuneration, while the percentage for each eligible person will vary depending on its position. A summary of each type of remuneration is shown below.

## Policy Regarding the Determination of Individual Remuneration for Each Remuneration System

Remuneration item	Summary	Recipients			
		Directors, excluding Outside Directors	Outside Directors	Executive Officers who are not Directors and Senior Fellows	Audit & Supervisory Board Members
Basic remuneration	Basic remuneration is paid in cash in a fixed amount every month. The amount paid to each person differs depending on their role, i.e., management supervision role or business execution role, and position.	●	●	●	●
Short-term performance-linked remuneration (individual)	This remuneration is paid to each officer. The remuneration amount for each person is determined by the Nominating/Compensation Committee after evaluating their actual performance versus the business plan* <sup>1</sup> of the division in charge and the progress of implementing measures during the previous fiscal year. The determined amount is paid in cash every month.	●	-	●	-
Short-term performance-linked remuneration (entire Company)	The remuneration amount, which is paid in cash once a year, is determined by the Nominating/Compensation Committee, using consolidated operating income as the base* <sup>2</sup> for evaluation.	●	-	●	-
Mid- to long-term performance-linked remuneration	<p>This remuneration is under the stock remuneration program ("the Program" in this column). Under the Program, the Company's stocks, funded by the Company and acquired through the Trust, are granted<sup>3</sup>. In the Program, three fiscal years constitute a performance period (the current period is from April 1, 2019 to March 31, 2022), and the Company contributes funds up to a maximum amount of 450 million yen per performance period to the Trust as remuneration for Directors and Officers.</p> <p>Directors and Officers are granted a pre-determined number of points depending on their titles/positions every year as the basis of their rights to receive the Company's stocks*<sup>3</sup>. After the end of each performance period, the number of points qualifying Directors and Officers to receive the Company's stocks are finalized after an adjustment for certain cases*<sup>4</sup>, according to the criteria for comparing changes in the Company's stock price with that of the TOPIX during the period. If any Directors and Officers retire from their positions during the period, an adjustment is to be made in a similar manner.</p> <p>In principle, upon their retirement, Directors and Officers receive the Company's stocks from the Trust, and the number of such stocks corresponds to the number of points finalized during their term of office*<sup>5</sup>.</p>	●	-	●	-



- \*1. With the aim of comprehensively evaluating the achievement of individual divisions, the actual performance versus the plan for operating profit and inventory reduction, the achievement of the goals for safety and quality, and the readiness for risk are scored and evaluated as total points.
- \*2. In order to properly and clearly reflect the Company's performance in the fiscal year, consolidated operating income (8,429 million yen in fiscal 2020) is adopted as an indicator. The correspondence table between consolidated operating income, which is an evaluation standard, and the amount paid by the rank of each position, is regularly reviewed by the Nominating/Compensation Committee to ensure that the level is appropriate, taking into account the consolidated operating income of the past few years. The table below shows the correspondence between the consolidated operating income and the amount paid by the rank of each position.

(Unit: JPY thousand)

Officer classification	Operating Profit						
	650~ (JPY 100 million)	550~650 (JPY 100 million)	450~550 (JPY 100 million)	350~450 (JPY 100 million)	250~350 (JPY 100 million)	150~250 (JPY 100 million)	~150 (JPY 100 million)
Chairman of the Board	19,500	16,088	12,675	9,750	7,800	4,875	—
President (Representative)	28,200	23,265	18,330	14,100	11,280	7,050	—
Corporate Senior Executive Vice President	20,800	17,160	13,520	10,400	8,320	5,200	—
Corporate Executive Vice President	13,900	11,468	9,035	6,950	5,560	3,475	—
Corporate Senior Vice President	10,000	8,250	6,500	5,000	4,000	2,500	—
Corporate Vice Presidents / Senior Fellows	5,400	4,455	3,510	2,700	2,160	1,350	—

- \*3. The total points granted to Directors and Officers during each period is limited to 180,000 points, and 1 point corresponds to 1 share of the Company's common stock. Points granted to each position during the period from April 1, 2019 to March 31, 2022 are shown in the table below.

Officer classification	Number of points granted	Maximum number of shares (per eligible period)
Chairman of the Board	5,530	21,567
President (Representative)	5,840	22,776
Corporate Senior Executive Vice President	3,480	13,572
Corporate Executive Vice President	2,530	9,867
Corporate Senior Vice President	1,580	6,162
Corporate Vice Presidents / Senior Fellows	950	3,705

- \*4. In order to appropriately reflect increase in corporate value to the remuneration amount, and to share the incentive for increasing corporate value with shareholders, we adopted the Company's stock price as the performance indicator. The specific number of points to be granted (finalized points) is calculated by multiplying the cumulative total points granted in the evaluation period by the payout ratio which is determined on the basis of the degree of divergence between the volatility of the Company's stock price and the volatility of TOPIX (Tokyo Stock Price Index). "Payout ratio" represents the percentage of change in the actual remuneration amount as a result of performance evaluation, where the standard amount of the mid- to long-term performance-linked remuneration is 100%.

**Formula for calculating the degree of divergence**

Degree of divergence = Volatility of the Company's stock price / Volatility of TOPIX  
 Volatility of the Company's stock price = Average stock price of the Company in the final year of the evaluation period / Average stock price of the Company in the year prior to the start of the evaluation period  
 Volatility of TOPIX = Average TOPIX in the final year of the evaluation period / Average TOPIX in the year prior to the start of the evaluation period

**Actual degree of divergence**

0.70 (reference value calculated by using figures in the year ending March 2021)

**Rate correspondence table for each degree of deviation**

Deviation (Scope)	X≥1.3	1.3>X≥1.2	1.2>X≥1.1	1.1>X≥0.95	0.95>X≥0.85	0.85>X≥0.75	0.75>X≥0.65	0.65>X≥0.55	0.55>X≥0.2	0.2>X
Payout Rate (%)	130	120	110	100	90	80	70	60	50	0

**Formula for calculating each officer's points during the evaluation period**

Finalized points = (Cumulative total points granted to each officer during the evaluation period) x (Payout ratio for the evaluation period)

- \*5. At the time of their retirement, Directors and Officers receive the Company's stocks and money calculated by the following formula (1) and (2) as the medium- to long-term performance-linked remuneration.
- The "number of points convertible into share units" of the calculation formula 1) and 2) shall be (Cumulative total points as of the vesting date x Payout ratio - Number of points corresponding to a fraction of shares). The vesting date is defined as the first end date of June after the retirement of Director or Officer, and after the closing of the last fiscal year, in which he/she is eligible for receiving points.
- Number of the Company's shares to be granted = (Number of points convertible into share units) x 0.7  
If there is a fraction of shares of the Company upon calculation by the above formula, such shares will be disregarded.
  - Amount of money to be paid = (Number of points convertible into share units x 0.3 + Number of points corresponding to a fraction of shares) x Market value of the Company's stock as of the vesting date  
If there are any points corresponding to a fraction of shares upon calculation by the formula "the number of points convertible into share units x 0.3," such a fraction will be rounded up to a share unit and added to the number of share units.

## Policy Regarding the Determination of the Percentage of Individual Remuneration for Each Remuneration System

The Company's executive remuneration consists of base salary, short-term performance-linked remuneration (individual division), short-term performance-linked remuneration (the entire Company), and medium- to long-term performance-linked remuneration. As for the percentage of each

component of remuneration, it is designed that the higher the officer's rank, the larger the percentage of performance-linked remuneration. When the aggregate total of the standard percentage of each component is 100%, the percentage of each component is shown below:

Officer classification	Base salary	Short-term performance-linked remuneration (individual divisions)	Short-term performance-linked remuneration (the entire Company)	Mid-to-long-term performance-linked remuneration	Total
Chairman of the Board	55%	12%	12%	21%	100%
President (Representative)	55%	14%	14%	18%	100%
Representative Director and Corporate Senior Executive Vice President	60%	13%	13%	15%	100%
Director and Corporate Executive Vice President	62%	12%	12%	14%	100%
Director and Corporate Senior Vice President	68%	11%	11%	11%	100%
Corporate Executive Vice President	60%	14%	14%	12%	100%
Corporate Senior Vice Presidents	67%	13%	13%	8%	100%
Corporate Vice Presidents / Senior Fellows	71%	16%	8%	5%	100%

## Remuneration for Fiscal 2020

### Remuneration for Directors and Audit & Supervisory Board Members

Officer classification	Total remuneration (JPY millions)	Total remuneration by type (JPY millions)			Number of subject officers (persons)*3	
		Base salary	Short-term performance-linked remuneration (individual divisions)	Short-term performance-linked remuneration (the entire Company)*1		Mid-to-long-term performance-linked remuneration*2
Directors (excluding Outside directors)	358	267	37	—	53	7
Audit & Supervisory Board Members (excluding outside Audit & Supervisory Board Members)	91	91	—	—	—	3
Outside Officers	101	101	—	—	—	9
Outside Directors	74	74	—	—	—	5
Outside Audit & Supervisory Board Members	36	36	—	—	—	4

\*1. Short-term performance linked remuneration (the entire Company) refers to the remuneration to be paid to seven Directors (excluding Outside Directors). For fiscal 2020, this remuneration was not paid because the performance did not meet the qualified level for payment.

\*2. The amount of medium- to long-term performance linked remuneration is calculated by deeming the number of shares equivalent to the points granted for the current fiscal year under the Stock Remuneration Plan as the remuneration for fiscal 2020.

\*3. The number of individuals paid and the amount paid in the table above include one Audit & Supervisory Board Member who resigned in fiscal 2020.

## Policy-holding Shares

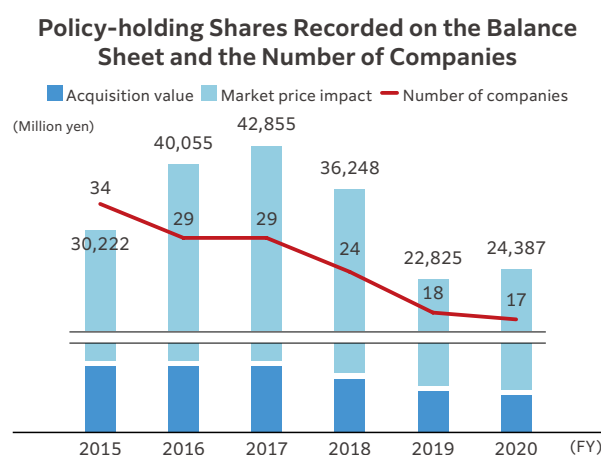
Each year, the Board of Directors verifies the validity of all listed shares of the policy-holding shares, and decides to continue holding some of the shares from the viewpoint of their relationship with the Company and of the cooperative relationship. We intend to reduce the shares deemed unsuitable for holding. The Board of Directors most recently examined the

appropriateness of the policy-holding shares at a meeting held in December 2020. As a result of the verification, we reduced some policy-holding shares, including four listed stocks (9,180 million yen). Our policy-holding shares as of March 31, 2021 include 17 listed shares (24,387 million yen).

### Policy on Policy-holding Shares

We will hold the shares if they are deemed to be significant from the viewpoint of improving capital efficiency or from need for the Company's business activities, and will reduce the shares if they are deemed to be unsuitable for holding. Each year, the Board of Directors shall conduct a verification of the validity of all listed shares of the policy-holding shares. The verification shall be conducted from a comprehensive perspective, including the creation of business opportunities, the maintenance and strengthening of business relationships and cooperative business relationships, as well as the comparison of quantitative benefits derived from the holdings of shares with the cost of ownership

calculated by the market value and capital cost of the shares.



\* Policy-holding shares are defined as the shares subject to "investment shares held for other than purely investment purposes" in the Securities Report.

# Group Governance

While respecting the independence of each affiliated company's management, Furukawa Electric shall understand the overall status of its management, including compliance and risk management, and provide appropriate management guidance, including advice and support on the establishment of each company's legal and internal control systems. That is how we ensure the soundness of each company's management, and we also strive to strengthen the entire Group's management structure and to increase corporate value.

Furukawa Battery Co. and Totoku Electric Co.— our subsidiaries — are listed on the Tokyo Stock Exchange. With the aim of maximizing corporate value as a group, we will continue to analyze the significance of the holding of listed subsidiaries in light of the proper allocation of management resources across the entire Group.

Given the fact that there is a structural conflict of interest

risk between the Company and minority shareholders of its listed subsidiary, we have taken measures to secure the interests of minority shareholders of the listed subsidiaries. Specifically, the ratio of independent outside directors (outside directors who report to the Tokyo Stock Exchange as independent directors) at their Board of Directors has been increased to represent more than a third. In addition, both Furukawa Battery Co. and Totoku Electric Co. have established a Conflict of Interest Management Committee as an organization to examine the rationality and fairness of transactions with their parent company. Independent outside directors represent a majority of the Committee at both companies. We will continue to work with the listed subsidiaries to establish and strengthen an effective governance system that effectively utilizes independent outside directors.

## Risk Management

### Overview of Risk Management and System

Furukawa Electric Group has established the Risk Management Committee, which comprises management as members, with the President as chair and the General Manager of the Risk Management Division as vice chair. The committee is structured to supervise and promote risk management, internal control and compliance.

Furukawa Electric Group Risk Management Committee conducts regular risk assessment to determine what risks exist, define important risks that require a companywide response, and prioritize measures to counter these risks. Through specialized committee activities in segment-specific areas— occupational health and safety, quality control, the environment, and disaster prevention and business

continuity management—we are enhancing our system to manage risks related to our business activities. In addition to this system, important decision making is conducted by the Board of Directors and the Management Committee or through the approval processing system, after the expected risks based on each case have been clearly presented and acknowledged.

- Important  
companywide  
risks**

  - Compliance
  - Quality control
  - Large-scale disasters, such as earthquakes
  - Information security
  - Affiliated company controls



(As of September 2021)

## Business-related Risks

Furukawa Electric Group's management performance is affected by economic conditions in various markets where we sell our products and provide services.

Risks that may affect the operating performance, stock price, and financial situation of the Group include the items and content listed in the table below. In addition, as a reflection of the Group's

management risk awareness, we have reviewed the items and content since fiscal 2019, so as to be in alliance with the Group's materiality and ESG management.

The forward-looking statements in the table below are based on judgments made by the Company as of March 31, 2021.

Risk item	Risk contents
<b>Management strategy (business portfolio, business restructuring)</b>	<ul style="list-style-type: none"> <li>• Risks that the business structure cannot respond to changes in economic and market conditions, and may affect the performance of the Group</li> <li>• Risks that, after implementing an M&amp;A or external alliance, the expected earnings and effects cannot be achieved due to adverse market conditions and other factors, and may affect the performance of the Group</li> </ul>
<b>Climate change</b>	<ul style="list-style-type: none"> <li>• Increase in manufacturing costs and materials procurement costs due to a carbon tax based on greenhouse gas emission targets and policies in each country</li> <li>• Suspension of plant operations due to a natural disaster caused by the intensified abnormal weather</li> <li>• Removal from a supply chain or market due to insufficient measures to combat climate change</li> </ul>
<b>Human resources and organization</b>	<ul style="list-style-type: none"> <li>• Insufficient improvement in corporate value as employees who are the driving force of sustainable growth do not raise their work engagement</li> <li>• Shortage of personnel due to the loss of personnel, inability to employ workers, or adequately develop personnel</li> </ul>
<b>Human rights</b>	<ul style="list-style-type: none"> <li>• Exclusion from the market due to the failure to fulfill the responsibility in respecting human rights as a corporation and the potential or actual negative impact on human rights</li> </ul>
<b>Governance</b>	<ul style="list-style-type: none"> <li>• Insufficient sustained growth and improvement of corporate value due to the deterioration of corporate governance and group governance</li> <li>• Risks of a conflict of interest between the Company and minority shareholders of its listed subsidiaries</li> </ul>
<b>Effects of disasters, infectious diseases, etc.</b>	<ul style="list-style-type: none"> <li>• Disruption in the sourcing or delivery points of the supply chain due to disasters such as a major earthquake, tsunami, fire, typhoon, flood, and outbreak of infectious disease, war, terrorism, etc.</li> <li>• Inability to sustain business operations due to natural disaster, accident, and infectious disease at overseas sites</li> <li>• Inability of business continuity due to the outbreak of large-scale cluster of infections of employees</li> </ul>
<b>Information security</b>	<ul style="list-style-type: none"> <li>• System failure or unauthorized use of information due to information leakage caused by external or human factors such as cyberattack or unauthorized access</li> <li>• Increased security risks through the use of a legacy system</li> </ul>
<b>Safety and health of employees</b>	<ul style="list-style-type: none"> <li>• Death, inability to work, residual disability, long-term leave, or poor health of employees, due to industrial accident, traffic accidents diseases, etc.</li> </ul>
<b>Procurement of raw materials</b>	<ul style="list-style-type: none"> <li>• Supply delay or shortage due to natural disaster, an accident, etc.</li> <li>• Supply shortage or outage due to supply dependence on certain suppliers</li> </ul>
<b>Defective products</b>	<ul style="list-style-type: none"> <li>• Risks of unexpected loss compensation due to the occurrence of defects, etc. (in particular, risk of significant additional cost in products related to power cables, communication cables, automotive products, etc., depending on the nature of the defect)</li> </ul>
<b>Worsening profitability of construction</b>	<ul style="list-style-type: none"> <li>• Design changes during construction, soaring cost of construction materials and labor</li> <li>• Additional costs incurred due to weather conditions such as ocean conditions and typhoons in undersea cable installation work</li> <li>• Payment of repair costs and compensation for damages or extension of long-term defect repair guarantees in the event of a serious defect or accident, or the associated delay in the construction period</li> <li>• Changes in legal regulations in the country concerned, changes in the situation of contractors, political instability, disasters, epidemics, and exchange rate fluctuations in overseas construction projects</li> <li>• Worsening balance of foreign currency contracts when converted into yen</li> </ul>
<b>Environmental pollution and environmental regulations</b>	<ul style="list-style-type: none"> <li>• Environmental conservation problems resulting from leakage of hazardous substances in manufacturing processes, and new capital investment or incurred cost for measures to comply with changes in environmental laws and regulations</li> <li>• Restrictions on use, disposal, etc. of land</li> <li>• Additional cost of measures due to the enhanced related laws and regulations for soil pollution and the treatment of hazardous substances such as asbestos and PCB associated with past productions, etc.</li> <li>• Risks of loss costs for product recall, suspension of production and sales, in the event of a violation of regulations related to chemical substances containing products, such as the RoHS (Restriction of the Use of Certain Hazardous Substances in Electrical Equipment) Directive and the REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) regulations, in various countries</li> </ul>
<b>Asset impairment</b>	<ul style="list-style-type: none"> <li>• Impairment of assets due to a decline in profitability caused by deteriorating market or business conditions</li> </ul>
<b>Intellectual property</b>	<ul style="list-style-type: none"> <li>• Risk of direct damage to business or opportunity loss caused by negotiations or disputes, arising from infringement of third parties' intellectual property rights, or disputes concerning inadequate technical contracts with third parties</li> <li>• Risks of diminished corporate competitiveness caused by leakage of technical know-how or imitation of products</li> </ul>
<b>Violations of laws and regulations, etc.</b>	<ul style="list-style-type: none"> <li>• Establishment and maintenance of compliance systems</li> <li>• Business restrictions or increased costs due to the enhanced regulations or stricter interpretations of laws and regulations received from regulatory authorities in conducting business both domestically and internationally</li> <li>• Disposition or sanction of regulatory authority, request for damages from parties concerned, such as business partners, and the deterioration of public esteem in the event of a violation of laws or regulations,</li> <li>• Administrative disposition due to export to embargoed countries, violation of foreign exchange law, and the risk of extraterritorial application of export control rules and laws in the United States and China, caused by the worsening U.S.-China relations</li> <li>• Violation of compliance with the laws and regulations of countries concerned</li> <li>• Improper accounting and window-dressing accounting at overseas bases</li> </ul>
<b>Fluctuation in prices of materials and fuels</b>	<ul style="list-style-type: none"> <li>• Rapid fluctuations in prices of non-ferrous metals such as copper and aluminum, synthetic resin such as polyethylene, and fuels such as heavy oil, LPG, and LNG, caused by supply and demand, speculative trading, or changing global conditions</li> </ul>
<b>Fluctuation in exchange rates, interest rates, and stock prices</b>	<ul style="list-style-type: none"> <li>• Changes in yen-converted amounts of foreign trade, including imports and exports, and foreign currency-denominated claims and liabilities</li> <li>• Fluctuation in the yen-converted amounts of individual financial statements in local currency denominated by overseas consolidated subsidiaries, etc. (an annual depreciation of 3-4 yen against the U.S. dollar is expected)</li> <li>• Increase in funding costs due to rising interest rates (interest bearing debts: 290.6 billion yen as of March 31, 2021)</li> <li>• Additional funding from the company due to a decrease in the market value of pension assets or increase in retirement benefit costs</li> </ul>
<b>Financing</b>	<ul style="list-style-type: none"> <li>• Difficulty in raising funds or worsening conditions for raising funds, caused by the deteriorating financial environment</li> <li>• Restrictions on funding or worsening conditions for raising funds, caused by the deteriorating credit ability of the company due to its deteriorating financial situation</li> </ul>
<b>Credit management</b>	<ul style="list-style-type: none"> <li>• Bad debts losses caused by the difficulty of collecting accounts receivable due to the failure of business partners</li> </ul>
<b>Tax compliance</b>	<ul style="list-style-type: none"> <li>• Tax costs incurred due to changes in the tax system and transfer price tax system for domestic and international transactions in each country</li> <li>• Additional tax costs incurred due to differences in views the tax authorities</li> </ul>

For more information, please see the 199th Securities Report pages 16 to 19, "Business-related Risks" (Only available in Japanese)  
[https://www.furukawa.co.jp/ir/library/sr/pdf/199\\_04.pdf](https://www.furukawa.co.jp/ir/library/sr/pdf/199_04.pdf)



# Supply Chain

## Basic Policy on Procurement

Furukawa Electric Group contributes to creating solutions for the new generation of global infrastructure combining information, energy, and mobility by collaboration with partners\*<sup>1</sup> based on relationships of trust with them. In accordance with Furukawa Electric Group Procurement Policy, we are fully considerate of safety and the environment in our procurement activities in order to realize a truly rich, sustainable society.

\*1. Furukawa Electric Group calls those who do business with us "partners" who collaborate with us to create value.

## Promoting CSR in Procurement Activities

As part of its activities in keeping with the best interests of the environment and society in general, Furukawa Electric, in its procurement activities, conforms to various CSR practices and standards. In fiscal 2020, we issued Furukawa Electric Group CSR Procurement Guidelines (3rd Edition), which added the latest social requirements, based on the Code of Conduct of the Responsible Business Alliance (RBA) and the Guidelines of the Electronic Information Technology Industries Association (JEITA), and made them known to our partners.

## Initiatives to Enhance the Supply Chain and the Value Chain

In relation to our selected partners, who collectively represent about 80% of our overall material/equipment procurement amount ("major partners" hereafter), based on the procurement amount and the degree of importance we evaluate indicators such as quality, technology, pricing, delivery system, social and environmental contribution, and credit status. There were 198 major partners in fiscal 2020. For these major partners, we also conduct surveys in the form of a questionnaire concerning their business continuity management (BCM) initiatives. In fiscal 2020, we conducted a manufacturing site survey, and compiled a database of the answers from our partners. This has enabled us to obtain a quick picture of partners who are likely to be affected in the event of a disaster.

We regularly hold the Partners' Meeting, explain our corporate situation, procurement policy, and CSR procurement activities. In fiscal 2020, the Meeting was canceled for the prevention of COVID-19 infections, but we conducted individual meetings with partners, gave them a feedback on the evaluation results, and explained our situation and procurement policy. For fiscal 2021, an online Partners' Meeting was held in June, with 117 participants from 54 major partners.

With regard to procurement logistics, we continued 1) cost reduction based on optimal means of transportation

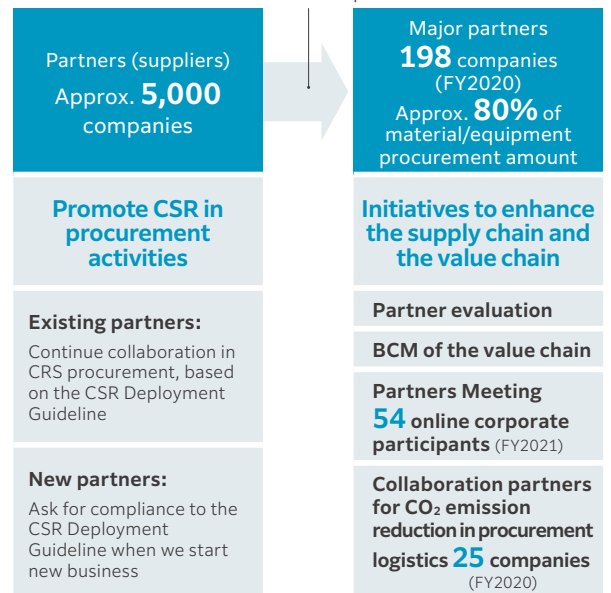
## Furukawa Electric Group Procurement Policy

1	<b>Fairness and Integrity</b> We are open to any and all business partners in accordance with the principle of free competition and we all act with fairness and integrity.
2	<b>Compliance with Laws and Regulations and CSR Procurement</b> Toward the realization of a sustainable society, we conduct our procurement activities considering environment preservation and safe operation in comply with all applicable laws and regulations and we do fulfill our Corporate Social Responsibility.
3	<b>Partnership</b> We always value relationships of mutual trust with our business partners to create new values by collaboration. We pursue to optimize our procurement conditions from the viewpoint of quality, cost, delivery, technological capabilities and CSR activities.

Based on the CSR Deployment Guidelines for Business Partners, we jointly strive with our existing business partners to thoroughly adhere to laws and regulations, conduct fair trading, respect human rights and consider safety and the environment, reduce environmental impact, avoid the use of conflict minerals, and ensure other matters in procurement activities. For new business partners, we request compliance with our CSR Deployment Guidelines when we start a new business relationship.

within the value chain, such as efficient use of return routes to Furukawa Electric; 2) CO<sub>2</sub> emission reduction at the time of procurement; and 3) dealing with the risks of soaring logistics costs and of inability to transport. The number of our collaboration partners engaged in CO<sub>2</sub> emission reductions in procurement logistics increased from 24 in fiscal 2019 to 25 in fiscal 2020.

Decision based on the procurement amount and the importance



# Human Rights

## Basic Policy on Human Rights

Under Furukawa Electric Group Philosophy, the Group understands that the human rights of everyone affected by its globally expanding business activities must be respected. The Group respects human dignity and all human rights that are recognized internationally. In accordance with the International Bill of Human Rights (Universal

Declaration of Human Rights and International Covenants on Civil and Political Rights), International Labour Organization's (ILO) Fundamental Rights at Work, and the United Nation's Guiding Principles on Human and Business Rights, the Group has created Furukawa Electric Group Human Rights Policy and is promoting initiatives to respect human rights.

### Furukawa Electric Group Human Rights Policy (items only) (established in January 2020)

1	Positioning	4	Human Rights Due Diligence	7	Compliance with applicable laws and regulations
2	Scope	5	Remedy	8	Dialogue and consultation
3	Responsibility to respect human rights	6	Training	9	Information disclosure

See details on our corporate website for "Human Rights".  
<https://furukawaelectric.disclosure.site/en/themes/95>

## Human Rights Initiatives, including Supply Chains

Interest in human rights risks throughout the supply chain, including forced labor, child labor, and discrimination, is growing. In response to these changes and increases in social demand for human rights, Furukawa Electric Group revised its Furukawa Electric Group CSR Code of Conduct in April 2019, and formulated its Furukawa Electric Group Human Rights Policy in January 2020. We have thus started efforts to implement human rights due diligence.

In the future, we will conduct a self-assessment questionnaire (SAQ) survey based on the CSR Procurement Guidelines with Group companies and partners to assess human rights and promote activities that reduce the negative impact of our Group's business activities. In fiscal 2021, we plan to carry out a SAQ survey of 79 Group companies in Japan and overseas, and about 50 major partners, expanding the scope of the survey.

## Commitment to Responsible Mineral Procurement

The Group policy on responsible minerals procurement is clearly stated in our CSR Procurement Guidelines and is made known by our Group companies and partners. In fiscal 2020, we used the survey form developed by the Responsible Minerals Initiative (RMI) of the RBA, and conducted surveys on the use of targeted metals in key

products of the Company and Group companies. We have also actively promoted procurement from smelters certified by the Conflict-Free Smelter Program. We will continue to work with Group companies and partners to ensure responsible mineral procurement in cooperation with industry associations and the JEITA.

## Supply Chain Data

		FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Furukawa Electric (non-consolidated)	Partners evaluated (Major Partners)	196	199	213	199	198	—
	Companies which attended the Partners Meeting	57	55	57	59	—*2	54
	Collaboration partners for CO <sub>2</sub> emission reduction in procurement logistics	4	7	20	24	25	—

\*2. In fiscal 2020, the Meeting was canceled for the prevention of COVID-19 infections.

# Development of Business Activities that Consider Climate Change

## Environment / Climate Change

### Furukawa Electric Group Basic Environmental Policy

<b>Basic Philosophy</b>	We, the employees of the Furukawa Electric Group, recognize that conservation of the global environment is a serious issue confronting the international community, and we pledge to contribute to a sustainable future for the world through technological innovation that utilizes our strength in advanced materials.
<b>Action Guidelines</b>	<b>1</b> We shall comply with environmental laws and regulations as well as the demands of our customers and others, setting ever higher environmental targets as we continuously improve our global environmental conservation efforts.
	<b>2</b> We shall strive to develop products that are friendly to the Earth, and create new environmental businesses.
	<b>3</b> We shall strive to reduce environmental risk by incorporating anti-climate change and resource conservation/recycling considerations, as well as a reduction in the use of environmental impact causing substances, across the entire product lifecycle.
	<b>4</b> We shall evaluate the ecological impact of all of our businesses, and strive for the conservation of biodiversity and sustainable use of resources.
	<b>5</b> We will seek harmony with the natural environment and local communities through dialogue with our stakeholders.

### Furukawa Electric Group Environmental Vision 2050

Through the provision of environmentally friendly products and services and recycling-based production activities, contribute to the realization of a sustainable society throughout the value chain

<b>1</b>	<b>Contribute to a carbon-free society</b> Aim to reduce greenhouse gas emissions throughout the value chain (Greenhouse gas emissions from business activities (Scope 1 & 2): Challenge target of zero emissions in 2050)
<b>2</b>	<b>Contribute to realizing a recycling-based society for water &amp; resources</b> Minimize water usage, and promote the use of recycled materials, including waste plastic, throughout the value chain
<b>3</b>	<b>Contribute to society in harmony with nature</b> Minimize the impact on ecosystems through value chain management that includes raw materials



Scope 1: Direct emissions from the company's plants and offices  
Scope 2: Indirect emissions from the electrical power and heat paid by the company

### Environmental Targets 2030

<b>1</b>	<b>Contribution to the decarbonized society:</b> Aiming for zero emissions over the long term. (1) The greenhouse gas emissions in the business activities: Reduce absolute scope 1 and 2 GHG emissions 26% by FY2030 from a FY2017 base year. (2) The greenhouse gas emissions in the value chain: Reduce absolute scope 3 GHG emissions 20% by FY2030 from a FY2017 base year.
<b>2</b>	<b>Contribution to the sound material-cycle society:</b> Promote the recycled materials usages aiming at the sound material-cycle society.
<b>3</b>	<b>Contribution to the circular &amp; ecological sphere society:</b> Minimize the impact on the ecological system through the provision of the environmental activities and products / services.

Furukawa Electric Group set the Environmental Targets 2030 and applied for the Science Based Targets (SBT) in fiscal 2018 and obtained approval in fiscal 2019.

### Metrics, Targets and Performance

Activity	Metrics	Base year	FY2020		FY2021	FY2025
			Targets	Results	Targets	Mid-term targets
Environmental impact reduction	Greenhouse gas emissions (Scope1&2)	2017	Reduction of 6.7% or more	Reduced 28.3%*	Reduction of 8.9% or more	Reduction of 17%
	Renewable energy ratio to electric power consumption	2017	Improvement of 1% or more	Increased 2.3%	Improvement of 1.5% or more	Improvement of 3%
	Greenhouse gas emissions (Scope3)	2017	-	-	Reduction of 2% or more	-
Environment business promotion	Environmentally friendly products ratio to net sales	-	60% or more	58.2%	62%	-
	Contribution of products to avoided environmental impact: reduction of CO <sub>2</sub> emissions	-	100,000 ton-CO <sub>2</sub> or more	157,000 ton-CO <sub>2</sub>	110,000 ton-CO <sub>2</sub> or more	-
External evaluation improvement	CDP climate change score	-	Score B or higher	A	Score A	-

In fiscal 2020, the CO<sub>2</sub> emissions of the Group were drastically reduced 28.3% from fiscal 2017 because the COVID-19 pandemic depressed economic activities, which affected the overall business of the Group.

### The Basic Concept of Carbon Neutrality

The Furukawa Electric Group's basic concept for achieving carbon neutrality consists of three initiatives: 1) eliminate or reduce direct CO<sub>2</sub> emissions; 2) eliminate or reduce CO<sub>2</sub> emissions by customers and society in general, and 3) capture or transform CO<sub>2</sub> that is emitted. The concept also resonates with the key management issues—materiality for risks (the development of business activities that consider climate change) and opportunities (the creation of environment-friendly businesses, and the formation of partnerships with diverse stakeholders).

In fiscal 2020 we announced Furukawa Electric Group Environmental Vision 2050. With regard to contributing to a decarbonated society, we aim to reduce greenhouse gas (GHG) emissions throughout the value chain, particularly by reducing GHG emissions (Scope 1 and 2) in our business activities. We have set the goal of zero emission in 2050.

We will implement specific measures and develop technologies for moving forward with the three initiatives toward carbon neutrality.

### Furukawa Electric Group's Basic Policy for Carbon Neutrality

	Three Carbon Neutrality Initiatives	Materiality	Specific Measures and Examples of Technology Development
<b>1</b>	<b>Eliminate or reduce direct CO<sub>2</sub> emissions</b>	(Risk) Development of business activities that consider climate change	<ul style="list-style-type: none"> <li>Energy saving, fuel conversion, and recycling rate improvement</li> <li>Use of renewable energy</li> </ul>
<b>2</b>	<b>Eliminate or reduce CO<sub>2</sub> emissions by customers and society</b>	(Revenue opportunities) Creation of social issue-solving businesses and creation of environment-friendly businesses	<ul style="list-style-type: none"> <li>Development of bipolar-type storage batteries</li> <li>Development of the Blue-IR hybrid laser BRACE®</li> </ul>
<b>3</b>	<b>Capture or transform the CO<sub>2</sub> that is emitted.</b>	Formation of partnerships with diverse stakeholders	<ul style="list-style-type: none"> <li>Development of technology for producing LPG with metal encapsulated zeolite™</li> </ul>

## Efforts to Reduce Greenhouse Gas (GHG) Emissions: Use of Renewable Energy

In our efforts to reduce GHG emissions in business activities, we are promoting energy saving and fuel conversion at our factories, and the use of renewable energy throughout our domestic and overseas Group companies. In fiscal 2020, the renewable energy ratio was 16.5% for the non-consolidated company and domestic Group companies, and 10.3% for the entire Group, including overseas companies.

We are working on GHG emission reduction by utilizing the power generated from hydroelectric power supplied by the Group company Furukawa Nikko Power Generation Inc. and the solar power generated at domestic and overseas bases, and purchases from the renewable energy menus of electric power companies and environmental certificates.



Furukawa Nikko Power Generation hydroelectric power generation



Solar power generation panels installed by the Mie Works (operation start, April 2021)



Solar power generation panels installed by Totoku Electric Co. (operation start, January 2021)



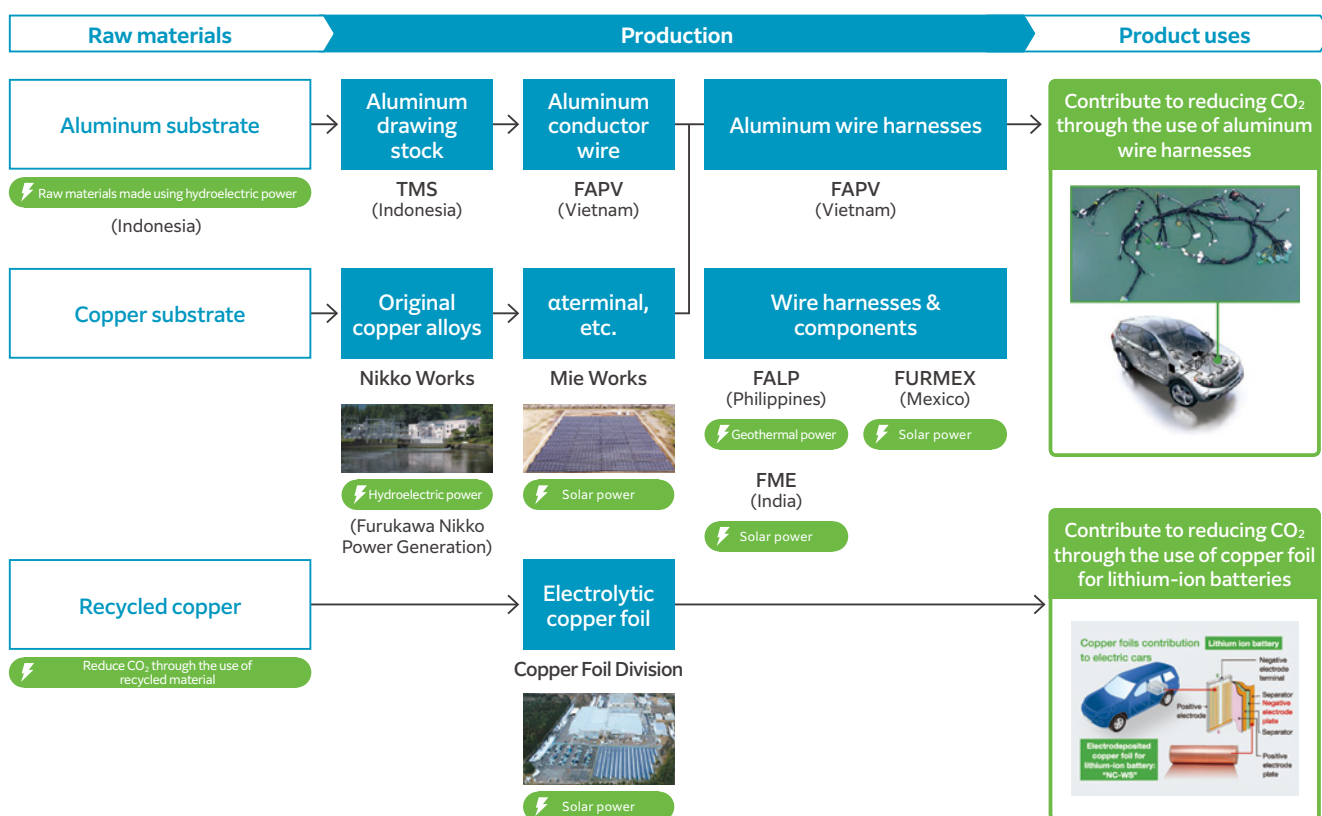
Introduction of green power from hydroelectric power at the Hiratsuka Works (operation start, April 2021)

## Efforts to Reduce GHG Emissions Throughout the Value Chain

We are working on reducing GHG emissions in the upstream operation of the value chain: use of aluminum bare metal, manufactured by hydroelectric power, to make aluminum wire rods—the material of aluminum wiring harnesses; and use of recycled copper to make copper foil raw materials. In the downstream operation of the value chain, we adopt Life Cycle Assessment to make

visible the reduction of GHG emissions from our core products, such as aluminum wiring harnesses and copper foil, when used in customers' products.

We thus contribute to GHG emissions reduction across the upstream and downstream operations of value chain, in addition to reducing GHG emissions from business activities.





## The Status of the Furukawa Electric Group's Response to the TCFD's Recommendations



In January 2020, recognizing that climate-related risks and opportunities are an important management issue, Furukawa Electric Group declared its endorsement of the Climate-related Financial Information Disclosure Task Force (TCFD). At the same time, we participated in the "Climate-related risks and opportunities scenario analysis support program in line with the TCFD," implemented

by the Ministry of the Environment. In order to realize a sustainable society, we will continue to use TCFD to strengthen our relationships of trust with our stakeholders. Toward the realization of a sustainable society, we will continue to use TCFD to strengthen our trust relationships with our stakeholders.

The status of the Furukawa Electric Group's response is as follows:

Core Elements	Recommended Disclosure (progress beyond FY2020 being underlined)			
<b>Governance</b>	Disclose the organization's governance around climate-related risks and opportunities.			
a) Describe the board's oversight of climate-related risks and opportunities.	<ul style="list-style-type: none"> <li>■ Recognizing that climate-related risks and opportunities are important management issues (materiality), the Board of Directors and the Management Committee conducted the following discussions related to climate change. The Board of Directors also reports and shares quarterly progress related to climate change.</li> <li>● Board of Directors</li> </ul>			
	Nov. 2018 – April 2019	Formulated Furukawa Electric Group Vision 2030 and reviewed the Group's Core Value.		
	Feb. 2021	Formulated Furukawa Electric Group Environmental Vision 2050.		
b) Describe management's role in assessing and managing climate-related risks and opportunities.	<ul style="list-style-type: none"> <li>● Management Committee</li> </ul>			
	Oct. 2018 – April 2019	Formulated Furukawa Electric Group Vision 2030 and reviewed the Core Value.		
	Jan. 2019	Applied for SBT certification and formulated the Environmental Goal 2030.		
	Jan. 2020	Endorsed the TCFD's recommendations and signed the UN Global Compact.		
	Dec. 2020 – Feb. 2021	Formulated Furukawa Electric Group Environmental Vision 2050.		
<b>Strategy</b>	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.			
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	<ul style="list-style-type: none"> <li>■ <b>Scenario Analysis</b></li> <li>● Climate-related risks (transition risks, physical risks) and opportunities are identified by business area and categorized for each time horizon (short, medium, and long term).</li> <li>● In FY2019, we participated in the Scenario Analysis Support Project for Climate-related risks and opportunities in line with the TCFD, conducted by the Ministry of the Environment. We identified climate-related risks and opportunities and conducted scenario analysis for our key infrastructure businesses (fiber optic cables of the Communications Solutions Business and power cables of the Energy Infrastructure Business). <u>In fiscal 2020, we identified climate-related risks and opportunities and conducted a scenario analysis for our key automotive products business.</u></li> </ul>			
b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	<ul style="list-style-type: none"> <li>● Climate-related scenarios are 2°C and 4°C scenarios. We set 2030 as the time axis for consideration, which is the target year of Furukawa Electric Group Vision 2030 and of achieving the SDGs. However, 2050 was set for physical risks.</li> <li>● Regarding the procurement of materials for the supply chain, the scenarios for the fiber optic cables and power cables business conducted in fiscal 2019 covered copper only (glass and plastic materials were excluded). The analysis for automotive products conducted in fiscal 2020 covered copper, aluminum, and plastics.</li> </ul>			
	Target manufacturing items	Optical fiber cables*1	Power cables	Automotive products
	Production base	Global production bases (Asia, North/Central America, EMEA)	Japan, China	Global production bases (Asia, North/Central America)
	Materials used	Glass material (fiber optics) Plastic (cable coating materials) Copper (metal communication cables)	Copper (conductive material) Plastic (cable coating materials)	Copper (wires, terminals) Aluminum (wires) Plastic (harness coating materials)
	Supply chain	Covers copper only. Not include glass materials or plastics.		Covers copper, aluminum and plastics
	Climate-related scenarios	2°C scenario, 4°C scenario		
	Target time period	Up to 2030. Up to 2050 for physical risks		
	Opportunities	Increased revenue from accelerating development of 5G/B5G*2 along with the proliferation of smart cities and the surge of communications traffic	Increased revenue from demand growth for submarine cables and the enhanced core transmission network along with the spread of renewable energy	Increased revenue from increased demand for products along with automotive electrification and weight reduction
		Carbon tax avoidance by adopting renewable energy	Carbon tax avoidance by adopting renewable energy	Carbon tax avoidance by adopting renewable energy
		Carbon tax on GHG emissions	Carbon tax on GHG emissions	Carbon tax on GHG emissions
	Risks			
	Transition risks	Increased in renewable energy procurement costs	Increased in renewable energy procurement costs	Increased in renewable energy procurement costs
		Increase in procurement costs due to carbon tax on copper (not yet considered for glass materials and plastics)	Increase in procurement costs due to carbon tax on copper (not yet considered for plastics)	Increase in procurement costs due to carbon tax on materials (copper, aluminum, and plastics)
	Physical risks	Operation suspension caused by drought	No impact	Operation suspension caused by weather disaster
c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<ul style="list-style-type: none"> <li>■ <b>Future measures</b></li> <li>● In fiscal 2020, we expanded the scope of scenario analysis to the automotive product business, but a task remains in that the risks and opportunities that we have quantified are limited. We are now aware of the need to deepen the analysis of each scenario and integrate them. In order to achieve Furukawa Electric Group Vision 2030 and Furukawa Electric Group Environmental Vision 2050, we will continue to work on business impact assessment and response measures, and disclose information to strengthen our relationship of trust with our stakeholders.</li> </ul>			

\*1..A summary of the results of the scenario analysis is posted on the Ministry of the Environment's Website: "Best practices for planning a management strategy utilizing TCFD" 2. B5G: Beyond 5G

Core Elements	Recommended Disclosure (progress beyond FY2020 being underlined)																																															
<b>Risk Management</b>	Disclose how the organization identifies, assesses, and manages climate-related risks.																																															
a) Describe the organization's processes for identifying and assessing climate-related risks.	<p> <span style="border: 1px solid black; padding: 2px;">Board of Directors</span>                      ↑ Proposals and reports  <span style="background-color: #0070C0; color: white; padding: 2px;">Risk Management Committee</span>                      Chair: President                      Vice Chair: General Manager, Risk Management Division                      Committee members: Management                      Organizer: General Manager, Risk Control Department                 </p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p style="text-align: center; background-color: #0070C0; color: white; margin: 0;">Furukawa Electric Group Environmental Committee</p> <p><b>Chair:</b> General Manager, Risk Management Division</p> <p><b>Vice Chair:</b> General Manager, Monozukuri Innovation Division</p> <p><b>Committee members:</b> Management</p> <p><b>Organizers:</b> General Manager, Environment Department, and General Manager, Facility Strategy Department, Production Technology &amp; Engineering Department</p> </div> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p style="text-align: center; background-color: #0070C0; color: white; margin: 0;">Central Disaster Prevention and BCM Promotion Committee</p> <p><b>Chair:</b> General Manager, Risk Management Division</p> <p><b>Vice Chair:</b> General Manager, Business Base Innovation Division and General Manager, MONOZUKURI Innovation Division</p> <p><b>Committee members:</b> General managers of each business division, divisional representatives, etc.</p> <p><b>Organizers:</b> General Manager, Risk Control Department</p> </div> </div> <p> <span style="color: #0070C0;">■</span> <b>The Company's overall risk management</b> is supervised and promoted by the Risk Management Committee (Chair: President; Vice Chair: General Manager of the Risk Management Division). The Committee meets every six months to discuss issues such as risk management, internal control, and compliance. Subcommittees are established for each risk of high importance, such as environmental risk.  <u>We have added climate change as a risk item to the "Business-Related Risks" in fiscal 2020, in order to show our recognition that climate change is a risk that could affect the Group's performance, stock price and financial situation. The content of the risk reflects the results of the scenario analysis.</u> </p>																																															
b) Describe the organization's processes for managing climate-related risks.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #0070C0; color: white;">Risk Item</th> <th style="background-color: #0070C0; color: white;">Details of risks</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Climate change</td> <td> <ul style="list-style-type: none"> <li>Increase in manufacturing costs and materials procurement costs, caused by carbon tax based on GHG emission targets and policies of each country</li> <li>Suspension of plant operations, due to natural disasters caused by the intensified abnormal weather</li> <li>Exit from supply chains and markets due to insufficient measures to combat climate change</li> </ul> </td> </tr> </tbody> </table>	Risk Item	Details of risks	Climate change	<ul style="list-style-type: none"> <li>Increase in manufacturing costs and materials procurement costs, caused by carbon tax based on GHG emission targets and policies of each country</li> <li>Suspension of plant operations, due to natural disasters caused by the intensified abnormal weather</li> <li>Exit from supply chains and markets due to insufficient measures to combat climate change</li> </ul>																																											
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c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	<p>  See details on page 59, "Business-Related Risks," and the 199th annual securities report pages 16-19 "Business-Related Risks."  <a href="https://www.furukawa.co.jp/ir/library/sr/pdf/199_04.pdf">https://www.furukawa.co.jp/ir/library/sr/pdf/199_04.pdf</a> (Only available in Japanese)                 </p> <p> <span style="color: #0070C0;">■</span> <b>Climate-related risks</b> are considered as the priority issue for environmental risk, and are of direct concern to general managers of each business division and divisional representatives, who are members of a special committee, Furukawa Electric Group Environmental Committee (Chair: General Manager of the Risk Management Division; Vice Chair: General Manager of the MONOZUKURI Innovation Division). The Committee meets every three months, examines climate-related risks, and reports and proposes on the monitoring status of climate-related risks and environmental issues to the Management Committee and the Board of Directors.  <u>In fiscal 2020, we discussed the formulation of Furukawa Electric Group Environmental Vision 2050, including the 2050 Challenge goal, and made a proposal to the Management Council and the Board of Directors. In FY2021, we are discussing raising the 2030 environmental target for reducing greenhouse gas emissions (scope 1 and 2) to a level that is consistent with our aim to become carbon neutral in 2050.</u> </p> <p> <span style="color: #0070C0;">■</span> <b>For risks related to natural disasters</b>, another special committee, the Central Disaster Prevention and BCM Promotion Committee (Chair: General Manager of the Risk Management Division; Vice Chairmen: General Manager of the Business Base Innovation Division and General Manager of the Monozukuri Innovation Division), is held regularly every three months to establish Business Continuity Management (BCM), identify business continuity risks, including natural disasters, and promote and manage the identification process.                 </p>																																															
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a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	<p> <span style="color: #0070C0;">■</span> <b>Science Based Target (SBT)</b>  <span style="color: #0070C0;">●</span> The greenhouse gases (GHG) emitted by our Group are primarily carbon dioxide (CO<sub>2</sub>) and sulfur hexafluoride (SF<sub>6</sub>), which are derived from energy. Our Group's long-term goal of reducing GHG emissions by 2030 compared to a base in fiscal 2017 is certified as an SBT (2°C target).  <span style="color: #0070C0;">■</span> <b>Indicators and targets (non-consolidated + domestic Group companies + overseas Group companies)</b>  <span style="color: #0070C0;">●</span> In fiscal 2020, we set the target of zero by 2050.                 </p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Metrics</th> <th rowspan="2">Units</th> <th colspan="4">Results</th> <th colspan="3">Targets (2017 as a base year)</th> <th rowspan="2">Challenge goal</th> </tr> <tr> <th>FY2017</th> <th>FY2018</th> <th>FY2019</th> <th>FY2020</th> <th>FY2021</th> <th>FY2025</th> <th>FY2030</th> </tr> </thead> <tbody> <tr> <td>GHG emissions (Scope 1 and 2)</td> <td>10<sup>4</sup> t-CO<sub>2</sub>e</td> <td>90.3</td> <td>84.3</td> <td>74.2</td> <td>64.8</td> <td>-8.9%</td> <td>-17.0%</td> <td>-26.0%</td> <td>Zero</td> </tr> <tr> <td>Renewable energy ratio</td> <td>%</td> <td>7.9</td> <td>8.9</td> <td>11.0</td> <td>10.3</td> <td>+1.5%</td> <td>+3.0%</td> <td>—</td> <td>—</td> </tr> <tr> <td>GHG emissions (Scope 3)</td> <td>10<sup>4</sup> t-CO<sub>2</sub>e</td> <td>163.6</td> <td>168.9</td> <td>176.4</td> <td>141.0</td> <td>-2.0%</td> <td>—</td> <td>-20.0%</td> <td>—</td> </tr> </tbody> </table>	Metrics	Units	Results				Targets (2017 as a base year)			Challenge goal	FY2017	FY2018	FY2019	FY2020	FY2021	FY2025	FY2030	GHG emissions (Scope 1 and 2)	10 <sup>4</sup> t-CO <sub>2</sub> e	90.3	84.3	74.2	64.8	-8.9%	-17.0%	-26.0%	Zero	Renewable energy ratio	%	7.9	8.9	11.0	10.3	+1.5%	+3.0%	—	—	GHG emissions (Scope 3)	10 <sup>4</sup> t-CO <sub>2</sub> e	163.6	168.9	176.4	141.0	-2.0%	—	-20.0%	—
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b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	<p> <span style="color: #0070C0;">■</span> <b>Internal carbon pricing</b>  <span style="color: #0070C0;">●</span> Estimation of internal carbon pricing began in fiscal 2019. By making carbon prices visible for each business unit, we encourage preparation for avoiding climate change risks with the ultimate goal of decarbonizing.                 </p> <p> <span style="color: #0070C0;">■</span> <b>Disclosure of environmental information and improvement of external evaluation</b>  <span style="color: #0070C0;">●</span> We have responded to the CDP questionnaire regarding CDP climate change since fiscal 2008 and CDP water security since fiscal 2013. <u>We obtained A rating in CDP climate change and B rating in CDP water security in fiscal 2020.</u>  <span style="color: #0070C0;">●</span> In cooperation with customers who utilize the CDP Supply Chain Program, we will participate in explanatory meetings and workshops, and in order to maintain and improve the CDP score, we will continue to expand the scope of disclosure of environmental information and increase reliability. We successfully obtained an A rating in the CDP Supplier Engagement Assessment for fiscal 2020 for the second consecutive year, thanks to collaboration with interested parties.  <span style="color: #0070C0;">●</span> With regard to Scope 3, we began disclosing GHG emissions by category in fiscal 2020.                 </p>																																															
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	<p>  See details on our website for "ESG Data / Environment Greenhouse gas emissions disclosed to CDP".  <a href="https://furukawaelectric.disclosure.site/en/themes/108">https://furukawaelectric.disclosure.site/en/themes/108</a> </p>																																															

# Strengthening Human Capital Management and Organizational Execution Abilities

## Human Resource Management Policy

Furukawa Electric Group maintains a basic policy of securing diverse human resources and supporting the growth of people who continue to take on challenges, and believes that strengthening human capital management and organizational execution abilities is the most important challenge (material issue) the group faces for the realization of Furukawa Electric Group Vision 2030.

Based on Furukawa Electric Group Vision for Our People, the group strives to share an ideal of human resources within the group, construct a personnel management system based on common guidelines, and take individual measures (i.e., training systems, consultation systems, and compensation and benefit plans) to ensure that diverse human resources are able to work autonomously and successfully.

## Furukawa Electric Group Vision for Our People



## Overall Image of the Initiatives for "Strengthening Human Capital Management and Organizational Execution Abilities"

Furukawa Electric Group Vision for Our People		Materiality "Strengthening human capital management and organizational execution abilities"	
Target	Category	Main initiatives and future direction	
Individual	<ul style="list-style-type: none"> <li>Increase satisfaction at work and engagement</li> <li>Become more independent</li> <li>Expand individual capabilities</li> </ul>	<ul style="list-style-type: none"> <li>● Work style reforms</li> <li>● Career design training</li> <li>● Job rotation program</li> <li>● In-house secondary job system (trial introduction)</li> <li>● Professional program</li> <li>● Train management personnel</li> </ul>	<ul style="list-style-type: none"> <li>Realize work styles not limited to particular workplaces</li> <li>Increase the desire for independent career formation</li> <li>Capability development through training and planned assignments</li> </ul>
Superiors	<ul style="list-style-type: none"> <li>Support the growth of each employee</li> <li>Build good teams</li> <li>Achieve results as a team</li> </ul>	<ul style="list-style-type: none"> <li>● Formulate and implement "Furukawa Seven"</li> <li>● Promote 1on1</li> <li>● Measure the organizational execution abilities</li> <li>● Advance the behavior reform program</li> </ul>	<ul style="list-style-type: none"> <li>Transform leadership</li> <li>Accelerate the changes to the organizational culture</li> </ul>
Basic stance	<ul style="list-style-type: none"> <li>Secure diversity</li> <li>Promote new challenges</li> <li>Implement fair, open systems that are trusted by employees</li> </ul>	<ul style="list-style-type: none"> <li>● Promote diversity</li> <li>● Target management system</li> <li>● Various interview systems</li> <li>● Revise the personnel compensation system</li> <li>● Maintain the new office of the head office</li> </ul>	<ul style="list-style-type: none"> <li>Utilize career-track hiring, and promote diverse personnel in the workplace</li> <li>Realize a culture that promotes new challenges in both dialogue (feedback and career interviews) and systems (side job in the company, clearly defined compensation)</li> </ul>

## Human Resources Development

### Development of Global Human Resources

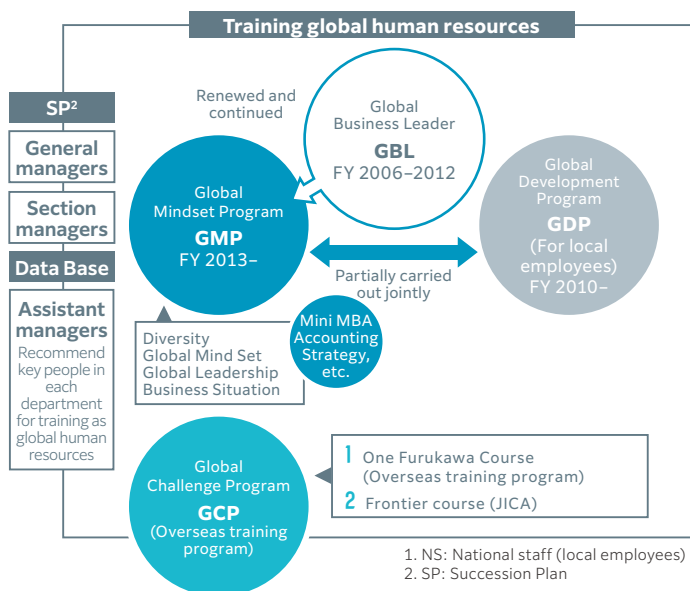
In accordance with “Furukawa Electric Group Vision for Our People”, we are training human resources who have rich humanity and strong challenge spirit, for the sake of our group development. The state of our leaders affects corporate culture and reflects in our business results, which is why we give training at each level to develop leadership, and construct relationships between people by “dialogue” among all our employees. We work hard to instill a mind that is interested in people and respects others.

We started our Global Business Leader (GBL) training in 2006 in order to develop personnel who will take on the role of management in the future. Since fiscal 2013 this has been reformed to Global Mindset Program (GMP), with its extra emphasis on global human resource education. We have also operated a Global Development Program (GDP) for overseas local employees since 2010 with the aim of strengthening links within the Furukawa Electric Group, the curriculum being partly shared with the GMP.

Furthermore, in fiscal 2014 we launched the Global

Challenge Program (GCP), which dispatches young employees to foreign countries. We are working to align these various programs to develop human resources who can play a dynamic role on the global stage.

### Global Human Resource Training System



### Development of Management Personnel (Succession Planning)

Furukawa Electric's management personnel development system ensures that candidate human resources are selected and given opportunities to develop in the following two tiers:

- 1 The manager and pre-manager tier
- 2 The general manager tier for corporate vice president candidates

Selection is based on internal and external assessments.

To help candidates develop, we provide individual internal training programs and personnel transfer plans and promote their participation in external training. We

also prepare succession plans for important positions within Furukawa Electric Group and supervise successor development and preparation. We systematically position human resources in co-ordination with management personnel development plans.

The Nominating/Compensation Committee, mainly consisting of outside directors, monitors the appropriateness and the operations of the management personnel development system. The committee also discusses the appointments of corporate vice presidents and selects personnel for the CEO succession plan.

### Efforts for Leadership Transformation: Furukawa Electric's Seven Principles for Leaders (Furukawa Seven)

In order to continue generating corporate value in a fast-changing, uncertain environment, a working team can deliver results only when the psychological safety of its members is ensured. For this reason, we have established the Seven Principles for Leaders (Furukawa Seven), which consists of one basic mindset and six action principles for a leader to build a good working team. To put these to work, at the start of every day our officers and executives, and department and section managers declare these principles and act accordingly every day. Our efforts on leadership transformation also include use of behavior retention tools such as mobile apps, and surveys to check practices and organizational health.

#### 1 important mindset and 6 action standards





## Workstyle Reform and New Ways of Working

We established the Workstyle Reform Committee (President as chair and the management as members) in May 2015 and started workstyle reform activities led by a dedicated team in the office.

The dedicated team system was changed to the Organizational Empowerment Team within the Group Transformation Division in May 2019 and since April 2021, the Human Resources and Organization Development Department of the Business Basis Transformation Division has been engaged in

organizational culture reform and efforts to improve the organizational capability to complete tasks.

Looking ahead into the post-COVID-19 world, we are strengthening our internal systems, operations, and infrastructure in fiscal 2021, with the aim to penetrate and establish “new ways of working” that maximize the benefits of both remote work and face-to-face communication. We will also continue to promote employee awareness reform.

Objective	Implement and operate programs	Enhance the infrastructure	Transform employee awareness
Promote remote work	<ul style="list-style-type: none"> <li>● Introduce a telework allowance</li> <li>● Settle commuting expenses based on actual cost</li> </ul>	<ul style="list-style-type: none"> <li>● Enhance the telecommunications lines</li> <li>● Strengthen information security</li> <li>● Enhance the remote tools</li> <li>● Promote digitalization of internal approval and contracts</li> </ul>	<ul style="list-style-type: none"> <li>● Executive management will lead by example in relation to utilizing remote work</li> <li>● Set targets for limiting office attendance</li> <li>● Hold internal meetings and events on-line</li> <li>● Quick survey of employee needs</li> </ul>
Establish new work styles	<ul style="list-style-type: none"> <li>● Improve the use of the Internet and SNS for making internal announcements and communicating with customers</li> </ul>	<ul style="list-style-type: none"> <li>● Revise the head office functions with an eye on post-COVID-19, and move into the new head office building</li> <li>● Promote digitalization of internal documents</li> <li>● Establish satellite offices</li> <li>● Start implementing the manufacturing workplace remote measures</li> </ul>	<ul style="list-style-type: none"> <li>● Activities to promote “Furukawa Seven”</li> <li>● Recommend team learning</li> </ul>
Measures to prevent infections	<ul style="list-style-type: none"> <li>● Group and global follow-up</li> <li>● Partner with industrial physicians</li> <li>● Thoroughly implement the guidelines of the Japan Business Federation</li> </ul>	<ul style="list-style-type: none"> <li>● Utilize partitions and face shields manufactured in-house</li> </ul>	<ul style="list-style-type: none"> <li>● Continually revise and call attention to the guidelines for preventing infection and in relation to the work styles</li> </ul>

### Utilization of remote work

#### ● Setting of a target rate of work at the office

We are promoting remote work by setting a target of around 30% work at the office for employees who can telework and are engaged mostly work in back-office sections such as at headquarters and branch offices, located in areas subject to the Japanese Government’s state of emergency or areas of semi-emergency COVID-19 measures designated by local governments. We have been 1)

#### ● Setting of a telework allowance

We have established a new teleworking allowance for employees who work primarily at home. For those eligible for commuting expense

#### ● Online and offline participation of in-house meetings and events

From the viewpoint of preventing the spread of COVID-19 infections, we are thoroughly implementing operational guidelines to hold Management Meetings and other major in-house meetings online, to the extent possible, in fiscal 2021. The Group’s research presentations and technical exchange meetings have been held using a hybrid method of actual and online

raising awareness, such as by having executives set examples, 2) undertaking system development (teleworking allowance, reimbursement of actual commuting expenses, coreless flexible time system during the teleworking period), and 3) enhancing infrastructure (communication line enhancement, adoption of enhanced laptop security software, digital signatures of documents).

reimbursement, we have changed the payment method from fixed-rate reimbursement to reimbursement of actual commuting expenses.

participation. This has enabled remote participation from multiple locations, including overseas, and more active exchange of opinions than before. In addition, the “Fun Lab®”, an open-innovation base in Yokohama Works, has started virtual tours utilizing VR technology.

See details on page 29 “Fun Lab®, a space that creates open innovation”.

### Establish a new workstyle

#### ● Review of head office functions and move to a new head office in view of the post-COVID-19 era

On July 19, 2021 we moved our head office from the Marunouchi Nakadori Building to the Tokiwabashi Tower in Tokyo Torch (a large-scale redevelopment district near Tokyo Station). In the new head office,

we are committed to realizing a new way of working and creating higher value through dialogues in a comfortable workplace, collaboration with diverse people, and improved team strength.

## Concept of relocation: "Mix! Own colors. - Let's draw the future in new colors."

The relocation project members, selected from various sections of the entire company, considered office functions of a new head office based on the idea of an Activity Based Working (ABW) under the concept "Mix! Own colors. - Let's draw the future in new colors." The ABW idea is that each person selects where to sit depending on their task or how they feel at the time. During the process, the COVID-19 breakout prompted the social transformation and the functions required for the head office were revisited.



## An office environment in which each employee demonstrates diversity and realizes a new workstyle

As remote work and other workstyles that are not confined to locations are rapidly being adopted, the layout of the new head office reflects the value of the office by way of providing a place to realize new workstyles, assuming 50% work at the

office and securing social distance. Even after the move, we intend to flexibly review office functions, taking into account changes in workstyle and diverse needs of the office.

- Creation of a collaborative space where internal and outside people fortuitously meet, collaborate, create, and transmit
- Creation of diverse communication spaces to stimulate communication through real dialogues and enhance the power of teams (for team meetings, stand-up meetings, one-on-one meetings, etc.)
- Space for online meetings and enhanced communication functions
- Free allocation of the office space to enable individuals to choose a location to work according to their task and mood of the day
- Refreshing space with an emphasis on reducing physical and mental stress and promoting wellbeing

### Illustrations



Collaborative spaces



Team meeting space



Office space



Refreshing space

## Tokiwabashi Tower

The Tokiwabashi Tower, where Furukawa Electric has moved its head office, is one of Japan's leading buildings in respect of environmental and social considerations. It obtained the SITES® first gold certification for a domestic urban complex

building development project (a preliminary certification) because of various efforts to reduce environmental impact, in line with ESG management as promoted by Furukawa Electric Group.

\* The Sustainable SITES Initiative (SITES®), administered by Green Business Certification Inc. (GBCI®) in the U.S., is a rating program of the landscape for efforts to reduce environmental impact from three perspectives: 1) design (conservation of water resources, soil and planting, human health and wellbeing), 2) construction (reuse of materials, protection of the air environment during construction), and 3) operation (management plan, explanation to users).

### ● Promotion of electronic documentation (introduction of cloud electronic folders, establishment of file operation rules)

In order to stimulate communication in the remote work environment, we have switched from our own servers to a global cloud service, have

simplified access from outside, and have enabled sharing files with users outside the Company, under a robust security environment.

### COVID-19 preventive measures

We strive to constantly follow our internal COVID-19 preventive measures, while making sure that our workforce follows the guidelines for both infection prevention and business continuity. As measures to

avoid the Three Cs (Closed spaces, Crowded places, and Close-contact settings), we use desk partitions and face shields, which are manufactured by ourselves, and donate face shields outside our Group.

## Using Diverse Human Resources

One of our Group's management philosophies is to "nurture human resources at every level, so that we can become a more diverse and creative organization".

It is essential for the progress of our Group's global management to create a corporate culture in which more diverse personnel can succeed. In April 2014, we set up a Diversity Promotion Section, and are working on various measures such as organizational mind

fostering, women's career formation support, promotion of autonomous work-life management, etc., aiming at building an environment where diverse human resources can be active.

We regularly hold events, such as lectures by experts, aimed at promoting understanding on Diversity & Inclusion (D&I), and corporate-wide forums aimed at promoting women's empowerment.

### Main recent activities

FY2018	<ul style="list-style-type: none"> <li>A diversity promotion event, including lectures and a panel discussion by directors and managers from Furukawa Electric LatAm S.A. (Brazil) and OFS Fitel, LLC (USA), was held based on the theme of "Working flexibly and globally."</li> </ul>
FY2019	<ul style="list-style-type: none"> <li>A workshop for directors was held based on the theme of "Unconscious bias."</li> <li>An in-house networking event based on the theme of "Diversity &amp; inclusion as a driver for innovation" was held, and a female outside director of Furukawa Electric and female general managers of group companies participated as panelists.</li> </ul>
FY2020	<ul style="list-style-type: none"> <li>One of our female technical employees was invited as a speaker to a seminar of professionals in the scientific field (for the 10th grade students), held at a girls' high school in Kanagawa Prefecture. The students eagerly listened to guest speakers about the work of science employees, their day's schedule, and their reasons for choice of career. This seminar has been held for 10 years since fiscal 2012, including fiscal 2021.</li> </ul>


### The Activity to Promote Women's Careers

In April 2016, we acquired Level Three of the "L-Mark", which is an accreditation for out-standing companies in the implementation of initiatives related to the

promotion of women's careers.

In fiscal 2018, we will develop and promote new targets and action plans.

Objectives related to support the success of women in the workplace	1	We aim for <b>7%</b> of females in managerial positions by fiscal 2025
	2	We aim for <b>15%</b> of females in chief positions by fiscal 2025
	3	We aim for <b>40%</b> of females in university graduates recruits by fiscal 2025

 A summary of our company's initiatives is available on the Ministry of Health, Labour and Welfare's "Enterprise database promoting women's success".  
<https://positive-ryouritsu.mhlw.go.jp/positivedb/detail?id=529> (Only available in Japanese)



### The Activity to Promote the Employment of People with Disabilities

Furukawa Electric established special subsidiary Furukawa New Leaf in fiscal 2004 to create an environment where more people with disabilities are able to work in a better setting, provide a place for them in society so that they are able secure stability and peace of mind, and develop independent workers who follow rules and actively participate in society.

The subsidiary employs 43 people with disabilities at three locations. They engage in cleaning and electric wire disassembly. Furukawa New Leaf is proactively contributing to the community, focusing on recruitment and training and increasing the number of jobs it provides by introducing new businesses.

## Human Resources (Diversity & Inclusion) Data

Coverage	Unit	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Employees in total*1	Persons	3,651	3,685	3,816	3,925	4,084	-
Share of women in employees	%	8.6	9.1	9.2	9.6	12	-
New hires in total*2	Persons	60	107	150	161	174	168
Share of women in new hires	%	25	29	21	20	20	13
Male employees' average length of service*1	Years	20.2	20.1	19.7	20.8	20.2	-
Female employees' average length of service*1	Years	19.7	18.9	18.4	18.2	17.2	-
Managers in total*1	Persons	937	936	960	940	964	-
Share of women in managers	%	2.8	3.3	3.2	3.4	3.4	-
Executive officers who do not concurrently serve as directors*2	Persons	18	21	23	20	22	23
Female executive officers	Persons	1	1	1	1	1	2
Foreign executive officers	Persons	4	4	4	3	3	3
Employment rate of people with disabilities*3	%	2.31	2.23	2.12	2.14	2.09	2.32

\*1. Numbers of employees and managers, and data of average length of service are as of the end of fiscal year.

\*2. Numbers of new hires and executive officers are as of April 1.

\*3. Numbers of employment rate of people with disabilities are as of June 1.

# Occupational Health and Safety

## Basic Approach to Occupational Health and Safety Management

In addition to basic legal compliance, Furukawa Electric Group prioritized initiatives that promote "becoming a safety conscious person" and "realizing fundamental safety." Our basic approach is to aim for

zero accidents and zero illness through safety activities focusing on three initiatives, that is, safety management in addition to the abovementioned two initiatives.

### Basic Policy on Health and Safety Management

- 1 Endeavor to eradicate accidents by inspections and management in accordance with the Industrial Safety and Health Act.
- 2 Nurture safety conscious persons that can avoid danger by pointing & calling and by complying with rules.
- 3 Realize "fundamental safety" in which people and facilities are separated to eliminate unsafe conditions.
- 4 Raise the quality of safety management by implementing SIDIS cycle based dialogue, empathy and standardization.
- 5 Promote mental and physical health improvement by Furukawa Electric Group's health management activities.

\*SIDIS: (1) Stare & Imitation (SI), (2) Dialog (D), (3) Improvement (I), (4) Standardization (S)

## Occupational Health & Safety Promotion System

Furukawa Electric Group has established Furukawa Electric Group Occupational Health & Safety Committee (on which the President serves as committee chairman) as the highest body for promoting occupational health and safety at a group level. The committee membership is composed of executives, and carries out deliberation, decision-

making and follow-up activities for Furukawa Electric Group as a whole in respect to policies and initiatives in health and safety.

Furukawa Electric Group Occupational Health and Safety Committee	Committee chair:	Committee members:	Organizer:
	President	Management	General Manager, Safety Promotion Department, General Manager, HR & Organizational Development Department

## Health Management

On May 15, 2017, Furukawa Electric Group announced "Furukawa Electric Group Health Management Declaration" with the purpose to promote the "Health Management" which is working for the strategic health

management and health promotion. Based on this declaration, we are supporting that employees will rise in health awareness and actively implement own health maintenance.

### Furukawa Electric Group Health Management Declaration

Furukawa Electric Group recognizes the mental and physical health improvement of its employees as an important management issue and will further advance activities that have been undertaken as part of health and safety management.

In order to "nurture human resources at every level, so that we can become a more diverse and creative organization" as stated in our Management Philosophy, it is important that employees face work in good mental and physical conditions, as a basis of their work style. Furukawa Electric Group has therefore given priority to employees' safety and health. We are committed to building a company which continues to grow with its employees working vigorously and being proud of their company, by implementing various activities for health management throughout the Group.

Moreover, we will strengthen the work style reform program and our cooperation with the Health Insurance Union and be aggressively engaged in initiatives to help employees improve health and raise health awareness.

May 15, 2017  
Keiichi Kobayashi



\*The term "health and productivity management" is a registered trademark of the Workshop for the Management of Health on Company and Employee.

## Occupational Health & Safety Data

Coverage	Unit	FY2016	FY2017	FY2018	FY2019	FY2020	
Furukawa Electric*1	The frequency rate of accidents resulting in time off work*2	-	0.28	0.63	0.48	0.59	0.11
Domestic group companies*1	The frequency rate of accidents resulting in time off work*2	-	0.72	0.30	0.56	0.32	0.21
Furukawa Electric	Employees receiving safety training	Persons	979	1,001	1,345	1,890	1,490
	Employees receiving health training	Persons	2,073	3,707	7,109	6,271	7,391
	Total time of receiving health training	Hour	2,451	3,111	3,584	2,929	2,803

\*1. The calculation for fiscal 2020 covered full-time employees and temporary staff at Furukawa Electric and 34 domestic group companies.

\*2. Frequency rate = (the number of casualties / Total actual work hours) x 1,000,000



# Management Analysis of Operating Results and Financial Position

## Overall Business Condition and Business Results

In fiscal 2020, the global economy was significantly affected by the COVID-19 pandemic and the economic environment deteriorated rapidly. In the United States, the government's major measures against the COVID-19 pandemic supported its economy but the pace of economic recovery was moderate. In Europe, the stay-at-home measures implemented in the UK and other countries significantly restricted individual consumption and corporate production activities, and economic activities have been substantially reduced. In China, the economy significantly contracted temporarily but has then been recovering, despite the uncertain economic environment, partly driven by the heightened political tensions with various countries including the United States and Europe.

In Japan, a state of emergency was declared due to the spread of COVID-19, and the economic activities were greatly affected. In the second half of the year, the spread of infections tapered, but spiked in January 2021, increasing uncertainty about the economic outlook.

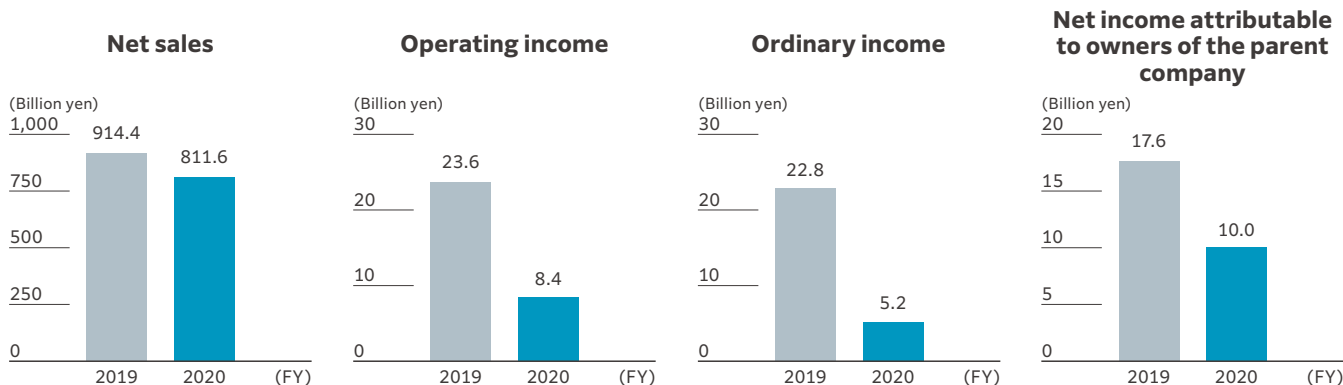
Meanwhile, prompted by the COVID-19 pandemic, digitalization accelerated across society, interest in ESG and SDGs increased, and the global supply chains were reviewed. These were among the changes newly important for looking beyond the post-COVID-19 world.

In this environment, Furukawa Electric Group promoted measures based on the medium-term management plan Furukawa G Plan 2020. In addition, we established the Emergency Response Team and implemented various measures to minimize the impact of the pandemic. Specific measures included the investigation of the COVID-19 impact on each business area, formulation of several recovery scenarios, as well as thorough management of inventories, cost reduction, and curbing of expenses, and improvement in operating cash flow through a

review of capital investment plans, based on the expectations of deteriorating profits. We also formulated guidelines concerning the COVID-19 preventive measures and working practices, and established a working system that ensures the safety of employees and their families, including promotion of remote work and thorough measures for infection prevention at work. Moreover, we revised the layout of the new head office (and moved in July 2021) in anticipation of the new post-COVID-19 workstyle.

The Furukawa Electric Group's net sales decreased year-on-year in fiscal 2020. Our overall business, including the Communications Solutions business, was sluggish due to the COVID-19 impact as well as the sale of the copper tube business and the reorganization of a part of the wire business, which resulted in both businesses dropping out of the scope of consolidation. Profit also decreased from the previous year due to significant impact from the stagnant global economic activities caused by COVID-19, in spite of some positive impact from efforts for cost reduction and cost control, which were mainly spearheaded by the Emergency Management Measures Team.

As a result, net sales were 811.6 billion yen (down 11.2% from the previous year), operating income was 8.4 billion yen (down 64.2%), and ordinary income was 5.2 billion yen (down 77.2%) on a consolidated basis. As a result of extraordinary income (including gain on disposal of non-current assets) of 33.4 billion yen and extraordinary losses (including provision for product defect compensation) of 17.3 billion yen, net income attributable to owners of the parent company was 10.0 billion yen (a 43.3% decrease from the previous fiscal year). Overseas sales were 376.4 billion yen (down 10.1%), and the ratio of overseas sales was 46.4% (up 0.6 percentage points from the previous year).



## Financial Position

Total assets at the end of FY2020 totaled 832.0 billion yen, an increase of 37.4 billion yen from the end of FY2019. Current assets were 429.8 billion yen, up 43.6 billion yen from the end of fiscal 2019, and non-current assets were 402.2 billion yen, down 6.2 billion yen from the end of fiscal 2019. While cash and deposits, inventories, and intangible assets increased by 30.0 billion yen, 5.0 billion yen, and 4.2 billion yen respectively, deferred tax assets decreased by 7.8 billion yen. Working capital, which is current assets less current liabilities, increased 48.1 billion yen from a year ago to 114.6 billion yen. Tangible and intangible fixed assets fluctuated due to an increase of 40.0 billion yen in capital expenditures, a decrease of 32.2 billion yen in depreciation and amortization, and a

decrease related to disposals and sales.

Total liabilities increased 18.8 billion yen from the end of FY2019 to 540.4 billion yen. Interest-bearing liabilities, including debt, corporate bonds, and commercial paper, increased 39.5 billion yen to 290.6 billion yen, while provision for product defect compensation decreased 13.7 billion yen.

Net assets increased 18.6 billion yen compared to the end of FY2019 to 291.6 billion yen. As a result of an increase in net income attributable to owners of the parent company, retained earnings increased 3.4 billion yen, and total accumulated other comprehensive income increased 15.9 billion yen. The equity capital ratio increased 1.0 percentage point from the end of fiscal 2019 to 31.2%.

## Cash Flows

Cash and cash equivalents increased by 32.1 billion yen to 87.2 billion yen at the end of FY2020 compared to the end of FY2019.

Net cash flow from operating activities decreased by 0.5 billion yen (42.4 billion yen less than in FY2019) due to the combination of profit before income taxes of 21.3 billion yen and loss on disposal of non-current assets of 20.8 billion yen.

Net cash flow from investment activities decreased

by 1.9 billion yen (31.2 billion yen less than in FY2019) mainly due to purchase of property, plant and equipment of 33.4 billion yen, proceeds from sales and redemption of investment securities of 14.8 billion yen, and proceeds from sales of non-current assets of 22.4 billion yen.

Net cash flow from financing activities increased by 35.1 billion yen (35.3 billion yen more than in FY2019) mainly due to net increase in long-term debt.

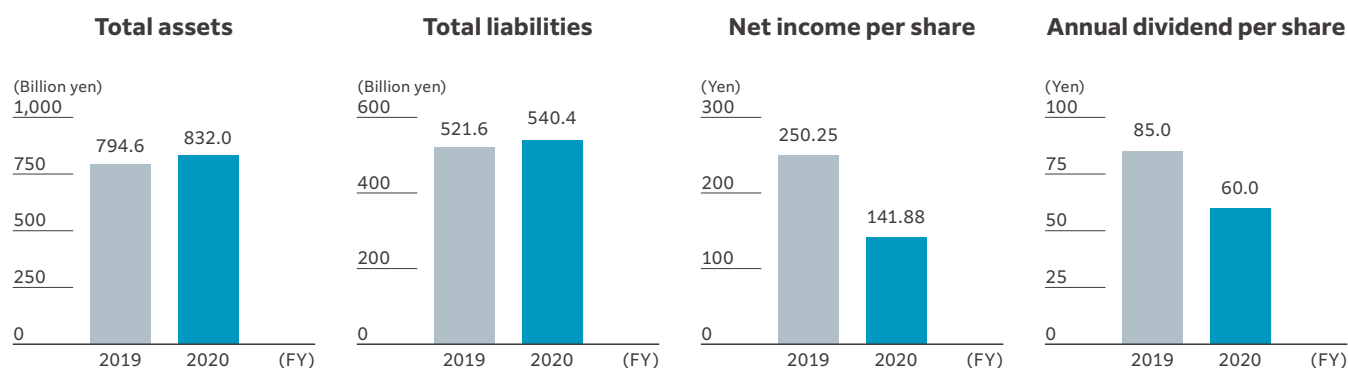
## Basic Policy on Profit Distribution and Dividends

We aim to manage the company with a focus on capital efficiency and have set forth a basic policy of balancing between providing shareholder returns and making strategic growth investments, fostering next generation new businesses, and improving financial health.

Under this basic policy, we position the continuation of stable dividends as one of the priorities of management. At the same time, we focus on expanding profits in key business areas

(infrastructure/automotive markets) that support the Group's sustainable growth, and prioritize capital investment and R&D for the creation of new businesses, thereby strengthening the Group's profitability and continuing to improve its financial structure in accordance with our medium-term management plan Furukawa G Plan 2020.

For fiscal 2020, we paid annual dividends of 60 yen per share, in view of the financial results of the year.



# Mid- and Long-term Management Strategy

## Initiatives for the Medium-term Management Plan Furukawa G Plan 2020

Based on the Medium-term Management Plan, Furukawa G Plan 2020 with the final year set for fiscal 2020, Furukawa Electric Group has made various efforts to achieve the following financial targets.

### Furukawa G Plan 2020 (FY2016-2020) Results and Financial Targets for FY2020

Financial Indicators	FY2016 results	FY2017 results	FY2018 results	FY2019 results	FY2020 results	FY 2020 targets	
						Initial in May 2016	Revised in May 2018
Operating income	¥38.6bn	¥44.8bn	¥40.8bn	¥23.6bn	¥8.4bn	¥40.0bn or more	¥55.0bn or more
Net income attributable to owners of the parent company	¥17.6bn	¥28.5bn	¥29.1bn	¥17.6bn	¥10bn	¥20.0bn or more	¥30.0bn or more
Net D/E ratio	0.99	0.88	0.81	0.82	0.79	-	Less than 0.8
Equity capital ratio	27.6%	29.2%	30.3%	30.2%	31.2%	-	More than 30%
ROE	9.3%	12.9%	12.0%	7.2%	4.0%	More than 8%	More than 10%
Return on operating assets	12.1%	13.1%	11.2%	6.1%	2.2%	10% or more	10% or more

Key initiatives of the Furukawa G Plan 2020, which began in FY2016, are ① to strengthen priority areas, namely the Infrastructure (Communications Solutions / Energy Infrastructure) and Automotive segments, ② expand sales in the global market, and ③ accelerate the creation of new business.

#### Furukawa Electric Group Medium-Term Management Plan FY2016-2020

Furukawa G Plan 2020: Group Global Growth  
Achieving unwavering growth

##### Priority measures

1. Strengthen and transform business
2. Expand sales in the global market
3. Accelerate the creation of new businesses

① In strengthening priority areas, we have promoted sales of optical fiber and fiber cables (hereafter stated as “optical fiber, etc.”) and development of new products related to digital coherent transmission in North America, and expanded the solution business in South America. In addition, capital investment was made to increase production capacity mainly in our North American base for optical fiber, etc. In the energy field, we focused on steadily capturing demand for ultra-high voltage underground cables in Japan and receiving orders for submarine cables for renewable energy projects, which are expected to expand demand. We also made capital investments in response to long-length undersea lines and to

improve productivity. In the automotive sector, we sought to obtain orders for wiring harnesses for global models, and we promoted the optimization of production systems and the enhancement of production capacity in the Asian region.

We have also taken steps to improve our low-margin businesses and products, using the return on operating assets\*<sup>1</sup> as an indicator. We have also reviewed our business portfolio based on comprehensive considerations such as business synergies with the priority areas.

\*1. Return on operating assets = Operating income / Operating assets (inventories + tangible and intangible fixed assets)

### Major Actions to Revise the Business Portfolio

1	Sold all of held shares of a subsidiary, FCM Co., (listed on the JASDAQ market at that time).
2	Reorganized the sales and distribution business of general-purpose power cables for the construction and wholesalers markets. (Established a joint venture company with Showa Densen Holdings Co.)
3	Sold the copper tube business. (Sold to a special purpose company of Japan Industrial Partners, Inc.)
4	Reorganized part of the wire business. (Established a joint venture with the Superior Essex Group.)

② Concerning sales expansion in the global market, we have made efforts to establish a system for global management of production and supply systems for optical fiber, etc. in the Communications Solutions business. In addition, we have established a system to undertake global business activities by transferring a corporate supervising function of the Southeast Asian region to our Thai subsidiary. Group-wide development of potential management candidates, including those in overseas subsidiaries, was another initiative we have worked on.

③ Concerning the creation of new businesses, we accelerated growth investment in the infrastructure and automotive areas and focused on product development for low-loss, high-density fiber optics, development of submarine line element technology for renewable energy, and development of peripheral monitoring radars and aluminum wire

harnesses to respond to the progress of CASE (Connected, Autonomous, Shared & Services, and Electric).

In addition, as an effort to create a new business model, we commercialized industrial lasers that contribute to mobility electrification by utilizing our knowledge of fiber laser technology and materials technology. Other R&D projects we concentrated on include a power supply system utilizing non-contact power transmission technology, bipolar-type storage batteries, which contribute to the stable supply of electricity generated by renewable energy, and LP gas generation technology by use of metal encapsulated zeolite™. We have also actively engaged in open innovation that combines our long-standing technologies with external technologies and ideas, toward achieving Furukawa Electric Group Vision 2030.

### Major open innovation initiatives

1	Established the open laboratory FunLab® inside the Yokohama Works as a place to co-create with participation by the outside world.
2	Opened a base in Silicon Valley in the United States for exploring collaboration opportunities with American companies and universities.
3	Established industry-academia collaboration courses at several national universities.
4	Concluded agreements with several local governments on disaster prevention, disaster reduction, etc.

At the beginning of the Furukawa G Plan 2020, we had strong business results, mainly due to the steady capture of strong demand for optical fiber, etc. in North America in the infrastructure sector and increase in wiring harnesses-related sales in the automotive sector. As we achieved the initial targets earlier than planned, with consolidated operating income of 44.8 billion yen and net income attributable to owners of the parent company of 28.5 billion yen in fiscal 2017, we revised our targets upward in May 2018. Since then, however, earnings in the Communications Solutions business deteriorated due to a worsening supply-demand

balance of optical fiber, etc. originating in China and the loss of sales opportunities that stemmed from delays in productivity improvement of optical fiber cables in North America. Furthermore, since 2020, the COVID-19 pandemic significantly depressed global economic activities and we could not achieve our revised targets. Nevertheless, we have been able to achieve certain results from the initiatives to improve our financial structure and to strengthen our corporate base. In March 2020, Rating and Investment Information, Inc. (R&I) upgraded Furukawa Electric to "A-" in March 2021 for the first time in the 19 years (since June 2002).

## Building a Base for the Next Medium-term Management Plan

We originally scheduled to start the next medium-term management plan in fiscal 2021, but have suspended its formulation and postponed the start of the plan because the COVID-19 pandemic has significantly changed the business landscape surrounding the Group. The analysis based on the efforts and results of the 2020 medium-term plan will therefore be reflected in the future plan. In fiscal 2021, we are working on the measures listed on the right in order to build a base for the implementation of the next 2025 medium-term plan toward the achievement of Vision 2030. We are currently formulating the 2025 plan, which will be announced as soon as it is finalized.

### FY2021 Management Policy

In FY2021, we will become a stronger company and make definite preparations for the 2025 medium-term management plan. In addition, we will implement mainly the following initiatives.

- **Transform the businesses**  
Strengthen the key businesses and continue to revise the business portfolio through responses to the low-margin and non-core businesses
- **Establish and foster new businesses**  
Create environment-friendly businesses and businesses that solve social issues
- **Strengthen management focus on capital efficiency**  
Evolve the "return on operating assets" used as an indicator in the 2020 medium-term management plan, and shift to target management with a focus on capital efficiency and greater awareness of "cost of capital"



## Financial and Non-Financial Data

Mid-term management plan	New Frontier 2012				
	(Millions of yen)	FY2010	FY2011	FY2012	FY2013
Operating results (fiscal year)	Net sales	925,754	918,808	924,717	931,781
	Operating income	35,144	15,947	17,763	25,456
	Ordinary income	31,422	12,872	17,612	25,532
	Net income attributable to owners of the parent company	12,213	△ 11,123	3,576	5,608
	Capital investments (CAPEX)	27,947	33,581	47,772	37,436
	Depreciation	40,396	39,216	35,347	28,106
	Research and development expenses	18,296	18,949	20,210	17,461
Financial position (at the end of fiscal year)	Net assets	215,904	197,569	222,843	199,733
	Total assets	826,944	790,114	819,702	714,845
	Equity Capital	165,968	144,694	165,739	177,237
	Operating Assets*1	389,193	370,989	396,951	294,333
	Balance of inventory assets	99,907	94,888	104,249	93,668
Cash flows (fiscal year)	Cash flows from operating activities	37,121	30,774	54,947	18,912
	Cash flows from investing activities	△ 21,382	△ 20,252	△ 44,939	△ 40,290
	Cash flows from financing activities	△ 18,317	△ 22,845	△ 11,402	29,917
Per share data*2	Net income per share (Yen)	17.30	△ 15.75	5.07	7.94
	Net asset per share (Yen)	235.1	204.9	234.7	251.0
Ratios	Operating income margin on sales (%)	3.80	1.74	1.92	2.73
	Equity capital ratio (%)	20.1	18.3	20.2	24.8
	Return on operating assets (%)*3	9.0	4.3	4.5	8.6
	ROE (%)	7.4	△ 7.2	2.3	3.3
	ROA (%)	3.8	1.6	2.2	3.3
	Total asset turnover ratio (times)	1.11	1.14	1.15	1.21

Figures are rounded down to the nearest one million yen. Other figures of financial data and non-financial data are round to the nearest value.

Climate change data		Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Furukawa Electric + Domestic and overseas group companies*4	Greenhouse gas emissions	10 <sup>4</sup> t-CO <sub>2</sub> e	88.1	90.3	84.3	74.2	<b>64.8</b>
	Total electric power consumption	GWh	1,323	1,387	1,379	1,293	<b>1,179</b>
	Renewable energy	GWh	105	110	123	142	<b>121</b>
	Renewable energy ratio to electric power consumption	%	7.9	7.9	8.9	11.0	<b>10.3</b>
	Energy consumption	1,000 kℓ	412	419	424	396	<b>351</b>
	Water usage	1,000 m <sup>3</sup>	12,868	13,014	13,140	12,535	<b>11,799</b>
Furukawa Electric + Domestic group companies*4	Greenhouse gas emissions	10 <sup>4</sup> t-CO <sub>2</sub> e	42.0	44.3	38.7	34.2	<b>31.6</b>
	Total electric power consumption	GWh	619	644	643	613	<b>569</b>
	Renewable energy	GWh	105	110	109	113	<b>94</b>
	Renewable energy ratio to electric power consumption	%	17.0	17.1	17.0	18.5	<b>16.5</b>
	Energy consumption	1,000 kℓ	192	198	198	191	<b>176</b>
	Water usage	1,000 m <sup>3</sup>	10,289	10,362	10,516	9,912	<b>9,602</b>

\*4. The coverage of group companies for fiscal 2020 is 30 domestic and 58 overseas group companies. For details, please see the "Scope of the environmental management (FY2020)" on page 79 of this report.

## Occupational health &amp; safety data

Furukawa Electric*5	The frequency rate of accidents resulting in time off work*6	-	0.28	0.63	0.48	0.59	<b>0.11</b>
Domestic group companies*5	The frequency rate of accidents resulting in time off work*6	-	0.72	0.30	0.56	0.32	<b>0.21</b>
Furukawa Electric	Employees receiving safety training	Persons	979	1,001	1,345	1,890	<b>1,490</b>
	Employees receiving health training	Persons	2,073	3,707	7,109	6,271	<b>7,391</b>
	Total time of receiving health training	Hour	2,451	3,111	3,584	2,929	<b>2,803</b>

\*5. The calculation for fiscal 2020 covered full-time employees and temporary staff at Furukawa Electric and 34 domestic group companies.

\*6. Frequency rate = (the number of casualties / Total actual work hours) x 1,000,000

## Furukawa G Plan 2015

## Furukawa G Plan 2020

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
	867,817	874,879	843,344	967,333	991,590	914,439	<b>811,600</b>
	17,873	27,116	38,623	44,804	40,842	23,565	<b>8,429</b>
	18,598	18,710	36,024	46,908	39,078	22,771	<b>5,189</b>
	7,355	10,007	17,570	28,547	29,108	17,639	<b>10,001</b>
	30,674	25,687	31,584	38,539	50,036	53,144	<b>39,963</b>
	22,508	23,235	23,307	25,106	26,271	29,423	<b>32,163</b>
	16,599	16,845	17,454	19,532	21,141	21,650	<b>20,217</b>
	214,743	198,587	237,051	272,071	279,911	273,030	<b>291,617</b>
	734,125	705,725	750,126	808,632	818,021	794,616	<b>832,044</b>
	190,741	173,163	206,712	236,518	247,659	240,280	<b>259,870</b>
	307,688	298,228	319,588	341,825	364,456	386,176	<b>387,832</b>
	99,443	93,167	104,355	113,792	122,890	115,862	<b>120,836</b>
	41,489	41,569	40,402	38,429	46,460	41,942	<b>△ 479</b>
	△ 23,533	1,947	△ 36,361	△ 34,319	△ 31,042	△ 33,119	<b>△ 1,908</b>
	△ 15,537	△ 20,942	△ 10,378	△ 1,943	△ 19,414	△ 171	<b>35,140</b>
	10.42	14.17	249.17	405.05	412.98	250.20	<b>141.88</b>
	270.2	2,452.6	2,933.2	3,355.8	3,513.6	3,408.9	<b>3,686.4</b>
	2.06	3.10	4.58	4.63	4.12	2.58	<b>1.04</b>
	26.0	24.5	27.6	29.2	30.3	30.2	<b>31.2</b>
	5.8	9.1	12.1	13.1	11.2	6.1	<b>2.2</b>
	4.0	5.5	9.3	12.9	12.0	7.2	<b>4.0</b>
	2.6	2.6	4.9	6.0	4.8	2.8	<b>0.6</b>
	1.20	1.22	1.16	1.24	1.21	1.13	<b>1.00</b>

\*1. Operating Assets are the total of inventory and tangible and intangible fixed assets.

\*2. We conducted a one-for-ten reverse stock split of our company's common shares effective October 1, 2016.

\*3. Return on operating assets is the ratio of the operating income over operating Assets.

Human resources data		Unit	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Consol	Employees in total*7	Persons	52,254	51,925	52,215	50,232	<b>48,449</b>	-
	Employees in total*7	Persons	3,651	3,685	3,816	3,925	<b>4,084</b>	-
	Share of women in employees	%	8.6	9.1	9.2	9.6	<b>12</b>	-
Furukawa Electric	New hires in total*8	Persons	60	107	150	161	174	<b>168</b>
	Share of women in new hires	%	25	29	21	20	20	<b>13</b>
	Male employees' average length of service*7	Years	20.2	20.1	19.7	20.8	<b>20.2</b>	-
	Female employees' average length of service*7	Years	19.7	18.9	18.4	18.2	<b>17.2</b>	-
Furukawa Electric	Managers in total*7	Persons	937	936	960	940	<b>964</b>	-
	Share of women in managers	%	2.8	3.3	3.2	3.4	<b>3.4</b>	-
Furukawa Electric	Executive officers who do not concurrently serve as directors*8	Persons	18	21	23	20	22	<b>23</b>
	Female executive officers	Persons	1	1	1	1	1	<b>2</b>
	Foreign executive officers	Persons	4	4	4	3	3	<b>3</b>
	Senior Fellows*8	Persons	3	2	2	2	1	<b>1</b>
	Directors*9	Persons	12	12	12	12	12	<b>11</b>
Furukawa Electric	Outside directors	Persons	5	5	5	5	5	<b>5</b>
	Independent directors	Persons	3	3	3	5	5	<b>5</b>
	Female directors	Persons	0	0	0	1	1	<b>1</b>
Furukawa Electric	Audit & Supervisory Board members*9	Persons	6	6	6	6	6	<b>6</b>
	Outside members	Persons	3	3	3	3	3	<b>3</b>
	Independent members	Persons	3	3	3	3	3	<b>3</b>
	Female members	Persons	0	0	0	0	1	<b>1</b>

\*7. Data of employees, managers and employees' average length of service are as of the end of fiscal year.

\*8. Numbers of new hires, executive officers and Senior Fellows are as of April 1.

\*9. Numbers of directors and Audit & Supervisory Board members are as of the end of fiscal year, but are as of June 24 for fiscal 2021.

# Consolidated Financial Statements

## Consolidated Balance Sheet (Millions of yen)

Assets	As of March 31, 2020	As of March 31, 2021
Current assets		
Cash and deposits	54,357	84,362
Notes and accounts receivable-trade	192,513	191,930
Securities	899	2,923
Merchandise and finished goods	34,550	38,210
Work in process	33,849	34,512
Raw materials and supplies	47,462	48,114
Other	23,801	30,653
Allowance for doubtful accounts	△ 1,254	△ 894
<b>Total; Current assets</b>	<b>386,179</b>	<b>429,812</b>
Non-current assets		
Property, plant and equipment		
Buildings and structures	229,611	235,399
Machinery and delivery equipment	475,766	446,936
Tools, furniture and fixtures	74,798	74,520
Land	36,354	35,127
Leased assets	1,261	1,257
Right-of-use assets	10,934	11,390
Construction in progress	34,529	27,108
Accumulated depreciation	△ 609,037	△ 584,996
<b>Total; Property, plant and equipment</b>	<b>254,219</b>	<b>246,744</b>
Intangible assets		
Goodwill	2,072	1,450
Other	14,022	18,799
<b>Total; Intangible assets</b>	<b>16,095</b>	<b>20,250</b>
Investments and other assets		
Investment securities	100,933	101,708
Investments in capital	6,466	8,965
Deferred tax assets	14,726	6,948
Net defined benefit asset	5,899	6,859
Other	11,162	11,788
Allowance for doubtful accounts	△ 1,065	△ 1,034
<b>Total; Investments and other assets</b>	<b>138,122</b>	<b>135,236</b>
<b>Total; Non-current assets</b>	<b>408,436</b>	<b>402,231</b>
<b>Total; Assets</b>	<b>794,616</b>	<b>832,044</b>

Liabilities	As of March 31, 2020	As of March 31, 2021
Current liabilities		
Notes and accounts payable - trade	111,586	115,502
Short-term debt	110,515	103,523
Current portion of bonds	15,000	30,000
Income taxes payable	2,785	2,033
Provision for product defect compensation	17,711	4,022
Other	62,048	60,121
<b>Total; Current liabilities</b>	<b>319,647</b>	<b>315,204</b>
Non-current liabilities		
Bonds payable	30,000	30,000
Long-term debt	95,573	127,094
Provision for environmental measures	10,396	10,229
Net defined benefit liability	53,460	44,514
Asset retirement obligations	1,304	1,323
Other	11,203	12,061
<b>Total; Non-current liabilities</b>	<b>201,937</b>	<b>225,222</b>
<b>Total; Liabilities</b>	<b>521,585</b>	<b>540,426</b>

### Net assets

Shareholders' equity		
Capital stock	69,395	69,395
Other capital surplus	22,787	23,028
Retained earnings	165,101	168,542
Treasury shares	△ 598	△ 576
<b>Total; shareholders' equity</b>	<b>256,685</b>	<b>260,388</b>
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	10,950	13,929
Deferred gains or losses on hedges	△ 1,691	2,677
Foreign currency translation adjustment	△ 12,853	△ 13,295
Remeasurements of defined benefit plans	△ 12,810	△ 3,829
<b>Total; Accumulated other comprehensive income</b>	<b>△ 16,405</b>	<b>△ 518</b>
<b>Non-controlling interests</b>	<b>32,750</b>	<b>31,747</b>
<b>Total; Net assets</b>	<b>273,030</b>	<b>291,617</b>
<b>Total; Liabilities and net assets</b>	<b>794,616</b>	<b>832,044</b>

## Consolidated Statement of Income and Consolidated Statement of Comprehensive Income

Consolidated Statement of income (Millions of yen)	For the Fiscal Year Ended March 31, 2020	For the Fiscal Year Ended March 31, 2021
<b>Net sales</b>	<b>914,439</b>	<b>811,600</b>
Cost of sales	764,200	682,288
<b>Gross profit</b>	<b>150,239</b>	<b>129,311</b>
SG&A		
Selling expenses	38,752	34,621
G&A expenses	87,921	86,260
<b>Total; SG&amp;A</b>	<b>126,674</b>	<b>120,881</b>
<b>Operating income</b>	<b>23,565</b>	<b>8,429</b>
Non-operating income		
Interest income	584	611
Dividend income	2,067	1,690
Profit in equity method affiliates	2,458	-
Foreign exchange gains	-	502
Gain on valuation of derivatives	548	-
Other	1,786	1,918
<b>Total; Non-operating income</b>	<b>7,446</b>	<b>4,723</b>
Non-operating expenses		
Interest expenses	4,326	3,586
Loss in equity method affiliates	-	893
Foreign exchange losses	1,014	-
Loss on valuation of derivatives	-	1,167
Other	2,900	2,316
<b>Total; Non-operating expenses</b>	<b>8,240</b>	<b>7,963</b>
<b>Ordinary income</b>	<b>22,771</b>	<b>5,189</b>
Extraordinary income		
Gain on disposal of non-current assets	5,848	22,144
Gain on sales of investment securities	7,494	9,521
Other	1,590	1,763
<b>Total; Ordinary income</b>	<b>14,934</b>	<b>33,430</b>
Extraordinary losses		
Loss on disposal of non-current assets	798	1,303
Impairment loss	623	2,542
Provision for product defect compensation	65	4,820
Loss on fire	958	-
Loss on change in equity	-	490
Loss on transfer of business	-	3,770
Loss on COVID-19	-	1,385
Other	4,508	2,991
<b>Total; Extraordinary losses</b>	<b>6,953</b>	<b>17,303</b>
<b>Profit before income taxes</b>	<b>30,751</b>	<b>21,316</b>
Income taxes - current	7,793	6,047
Income taxes - deferred	3,960	3,171
<b>Total; Income taxes</b>	<b>11,754</b>	<b>9,219</b>
<b>Net income</b>	<b>18,997</b>	<b>12,097</b>
Net income attributable to non-controlling interests	1,357	2,095
<b>Net income attributable to owners of the parent company</b>	<b>17,639</b>	<b>10,001</b>

Consolidated Statement of Comprehensive income (Millions of yen)	for the Fiscal Year Ended March 31, 2020	for the Fiscal Year Ended March 31, 2021
<b>Net income</b>	<b>18,997</b>	<b>12,097</b>
Other comprehensive income		
Valuation difference on available-for-sale securities	△ 10,119	2,945
Deferred gains or losses on hedges	△ 1,604	4,235
Foreign currency translation adjustment	△ 3,905	244
Remeasurements of defined benefit plans, net of tax	△ 3,942	8,124
Share of other comprehensive income of entities accounted for using equity method	△ 1,485	294
<b>Total; Other comprehensive income</b>	<b>△ 21,058</b>	<b>15,844</b>
<b>Comprehensive income</b>	<b>△ 2,060</b>	<b>27,941</b>
Comprehensive income attributable to owners of parent	△ 3,272	25,888
Comprehensive income attributable to non-controlling interests	1,211	2,053

## Consolidated Statement of Cash Flows (Millions of yen)

	For the Fiscal Year Ended March 31, 2020	For the Fiscal Year Ended March 31, 2021
Cash flows from operating activities		
Profit/Loss before income taxes	30,751	21,316
Depreciation	29,423	32,163
Loss (profit; △) in equity method affiliates	△ 2,458	893
Loss (gain; △) in sales of marketable securities and investment securities	△ 7,462	△ 9,166
Loss (gain; △) on sale of businesses	-	3,770
Loss (gain; △) on valuation of investment securities	1,102	236
Loss (gain; △) on disposal of non-current assets	△ 5,050	△ 20,840
Impairment loss	623	2,542
Loss on disaster	958	-
Insurance claim income	-	△ 1,281
Loss on COVID-19	-	1,385
Loss on valuation of inventories	388	1,246
Interest and dividend income	△ 2,652	△ 2,302
Interest expenses	4,326	3,586
Foreign exchange losses (gains; △)	△ 591	338
Decrease (increase; △) in notes and accounts receivable - trade	23,499	△ 13,788
Decrease (increase; △) in inventories	4,071	△ 13,770
Increase (decrease; △) in notes and accounts payable - trade	△ 17,252	12,161
Increase (decrease; △) in liability for retirement benefits	387	1,059
Increase (decrease; △) in provision for product defect compensation	△ 10,667	△ 13,706
Other	1,873	2,009
<b>Subtotal</b>	<b>51,273</b>	<b>7,852</b>
Interest and dividend income received	4,682	3,287
Interest expenses paid	△ 4,344	△ 3,603
Income taxes (paid; △) refund	△ 8,952	△ 8,209
Loss on disaster paid	△ 717	-
Insurance claims received	-	1,281
Loss on COVID-19 paid	-	△ 1,088
<b>Cash flows from operating activities</b>	<b>41,942</b>	<b>△ 479</b>
Cash flows from investing activities		
Decrease (increase; △) in time deposits	39	4
Purchase of investment securities	△ 1,543	△ 2,112
Proceeds from sales and redemption of investment securities	10,916	14,804
Proceeds from sales of investments in subsidiaries resulting in change in scope of consolidation	-	2,306
Purchase of property, plant and equipment	△ 47,312	△ 33,386
Purchase of intangible assets	△ 6,550	△ 7,325
Proceeds from sales of non-current assets	6,789	22,370
Decrease (increase; △) in short-term loans receivable	4,950	3,540
Payments of long-term loans receivable	△ 427	△ 1,796
Collection of long-term loans receivable	261	1
Other	△ 242	△ 315
<b>Cash flows from investing activities</b>	<b>△ 33,119</b>	<b>△ 1,908</b>
Cash flows from financing activities		
Net increase (decrease; △) in short-term loans payable	1,735	2,008
Net increase (decrease; △) in commercial papers	15,000	15,000
Proceeds from long-term loans payable	8,935	55,965
Repayments of long-term loans payable	△ 27,390	△ 30,100
Proceeds from issuance of bonds	10,000	-
Proceeds from non-controlling shareholders	728	452
Payment for purchase of common treasury stock	△ 1	△ 9
Payment for purchase of common treasury stock by subsidiaries	△ 151	-
Cash dividends paid	△ 5,998	△ 6,001
Cash dividends paid to non-controlling shareholders	△ 1,379	△ 521
Other	△ 1,649	△ 1,651
<b>Cash flows from financing activities</b>	<b>△ 171</b>	<b>35,140</b>
Effect of exchange rate change on cash and cash equivalents	△ 928	△ 594
<b>Net increase (decrease; △) in cash and cash equivalents</b>	<b>7,722</b>	<b>32,158</b>
Cash and cash equivalents at beginning of the year	46,838	55,055
Increase in cash and cash equivalents from newly consolidated subsidiary	494	819
Decrease in cash and cash equivalents resulting from exclusion of subsidiaries from consolidation	-	△ 866
Increase in cash and cash equivalents resulting from merger	-	22
<b>Cash and cash equivalents at end of the year</b>	<b>55,055</b>	<b>87,189</b>



# Furukawa Electric Group Outline

## North and Central America

- Group employees in total **6,739**
- Group companies in total **14**
- Consolidated net sales **78.2 billion yen**
- Greenhouse gas emissions **8.6 10<sup>4</sup> t-CO<sub>2</sub>e**



## South America, Europe, and others

- Group employees in total **3,059**
- Group companies in total **17**
- Consolidated net sales **74.4 billion yen**
- Greenhouse gas emissions **2.3 10<sup>4</sup> t-CO<sub>2</sub>e**



## Furukawa Electric Group

- Group employees in total **48,449** (As of March 31, 2021)
- Group companies in total **123**\*<sup>1</sup> (As of March 31, 2021)
- Consolidated net sales **811.6 billion yen** (Fiscal year ended March 31, 2021)
- Greenhouse gas emissions **64.8 10<sup>4</sup> t-CO<sub>2</sub>e**\*<sup>2</sup> (FY2020)

\*1. Combined total for Furukawa Electric, 109 consolidated subsidiaries and 13 equity-method affiliates  
 \*2. Combined total amount for Furukawa Electric, 30 domestic and 58 overseas group companies

## China

- Group employees in total **4,791**
- Group companies in total **17**
- Consolidated net sales **82.8 billion yen**
- Greenhouse gas emissions **12.4 10<sup>4</sup> t-CO<sub>2</sub>e**



## Japan

- Group employees in total **10,798**
- Group companies in total **42**
- Consolidated net sales **435.2 billion yen**
- Greenhouse gas emissions **31.6 10<sup>4</sup> t-CO<sub>2</sub>e**

## Asia (ex. Japan and China)

- Group employees in total **23,062**
- Group companies in total **33**
- Consolidated net sales **141.0 billion yen**
- Greenhouse gas emissions **9.7 10<sup>4</sup> t-CO<sub>2</sub>e**



\* The number of group companies in Japan includes Furukawa Electric.  
 \* Net sales by region are based on the location of customers and are classified by country or region.  
 \* Greenhouse gas emissions by region are based on the location of the companies and are classified by country or region.

## Scope of the Environmental Management (FY2020)

### 30 Domestic Group Companies

NTEC Ltd.	Okano Electric Wire Co., Ltd.
KANZACC Co., Ltd.	Shoden Seiwa Co., Ltd.
TOTOKU Electric Co., Ltd.	FITEC Corp.
Furukawa Automotive Systems Inc.	Furukawa Sangyo Kaisha, Ltd.
Furukawa Communication and Broadcasting Co., Ltd.	Furukawa Industrial Plastics Co., Ltd.
Furukawa Precision Engineering Co., Ltd.	Furukawa Techno Material Co., Ltd.
Furukawa Electric Advanced Engineering Co., Ltd.	Furukawa Electric Ecotec Co., Ltd.
Furukawa Electric Industrial Cable Co., Ltd.	Furukawa Electric Power Systems Co., Ltd.
The Furukawa Battery Co., Ltd.	Furukawa Logistics Corp.
Furukawa Magnet Wire Co., Ltd.	The Furukawa Finance and Business Support Co., Ltd.
Miharu Communications Inc.	Riken Electric Wire Co., Ltd.
Furukawa Network Solution Corp.	Furukawa New Leaf Co., Ltd.
Furukawa Research Inc.	Foam Kasei Co., Ltd.
Furukawa Nikko Power Generation Inc.	Furukawa Elecom Co., Ltd.
Myojodenki Co., Ltd.	Furukawa FITEL Optical Device Co., Ltd.

### 58 Overseas Group Companies

Shenyang Furukawa Cable Co., Ltd.	Suzhou Furukawa Power Optic Cable Co., Ltd.
P.T. Tembaga Mulia Semanan Tbk.	Furukawa Electric LatAm S.A.
Furukawa Industrial Optoelectronica Ltda.	Furukawa Industrial S.A. Sucursal Argentina
Furukawa Industrial Colombia SAS	OFS Fitel, LLC
OFS FITEL Deutschland GmbH	OFS Fitel Denmark Aps
Furukawa Electric Morocco SARL	JIANGSU OFS HENG TONG OPTICAL TECHNOLOGY CO., LTD.
OFS RUS Fiber Optic Cable Company	Thai Fiber Optics Co., Ltd.
P. T. Furukawa Optical Solutions Indonesia	Furukawa FITEL (Thailand) Co., Ltd.
Furukawa FITEL Optical Products (Shanghai) Co., Ltd.	Thai Furukawa Unicomm Engineering Co., Ltd.
Trocellen GmbH	POLIFOAM MUANYAGFELDOLGOZO KFT
HT Italia Holding S.r.l.	Trocellen Italy S.p.A.
Trocellen S.E.A. Sdn Bhd	FE Magnet Wire (Malaysia) Sdn.Bhd.
Taiwan Furukawa Magnet Wire Co., Ltd.	Furukawa AVC Electronics (Suzhou) Co., Ltd.
FURUKAWA ELECTRIC THERMAL MANAGEMENT SOLUTIONS AND PRODUCTS LAGUNA, INC.	Taiwan Furukawa Electric Co., Ltd.
Furukawa Automotive Systems (Thailand) Co., Ltd.	Furukawa Wiring Systems Mexico, S.A. de C.V.
P.T. Furukawa Automotive Systems Indonesia	Furukawa Electric (Shenzhen) Co., Ltd.
Furukawa Automotive Systems Vietnam Inc.	Furukawa Electric Autoparts Philippines Inc.
Permintex Furukawa Autoparts Malaysia Sdn. Bhd.	Furukawa Electric Autoparts Central Europe, s.r.o
Furukawa Automotive Parts (Vietnam) Inc.	Furukawa Automotive Parts (Dong Guan) Ltd.
Furukawa Auto Parts (Huizhou) Co. Ltd.	Furukawa Mexico S.A. De C.V.
American Furukawa, Inc.	Tianjin Jinhe Electric Engineering Co., Ltd.
Furukawa Automotive Systems Lima Philippines, Inc.	Wuhan Furukawa Automotive Systems Co., Ltd.
Chongqing Changhua Automobile Harness Co., Ltd.	Furukawa Automotive Systems Mexico S.A. de C.V.
Furukawa Minda Electric Pvt. Ltd.	Furukawa Precision (Thailand) Co., Ltd.
Furukawa Electric Copper Foil Taiwan Co., Ltd.	Furukawa Circuit Foil Taiwan Corporation
Siam Furukawa Co., Ltd.	Furukawa Electric Institute of Technology Ltd.
SuperPower Inc.	Furukawa Electric Europe Ltd.
Furukawa Electric Singapore Pte. Ltd.	Furukawa Shanghai, Ltd.
Furukawa (Thailand) Co., Ltd.	Furukawa Electric Hong Kong Ltd.

# Company Profile and Stock / Dividends Information

## Company Profile

<b>Company name</b>	Furukawa Electric Co., Ltd.
<b>President</b>	Keiichi Kobayashi
<b>Founded</b>	1884
<b>Established</b>	June 25, 1896
<b>Paid-in capital</b> (As of March 31, 2021)	¥69,395 million
<b>Net sales</b> (Years ended March 31, 2020)	¥811,600 million (consol.) ¥392,616 million (non-consol.)
<b>Number of employees</b> (As of March 31, 2021)	48,449 (consol.) 4,084 (non-consol.)
<b>Head office</b>	Tokiwabashi Tower, 6-4 Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8322, Japan
<b>TEL.</b>	+81-3-6281-8500
<b>Website</b>	<a href="https://www.furukawa.co.jp/en/">https://www.furukawa.co.jp/en/</a>
<b>Consol. Subsidiaries</b> (As of March 31, 2021)	109
<b>Equity-method affiliates</b> (As of March 31, 2021)	13

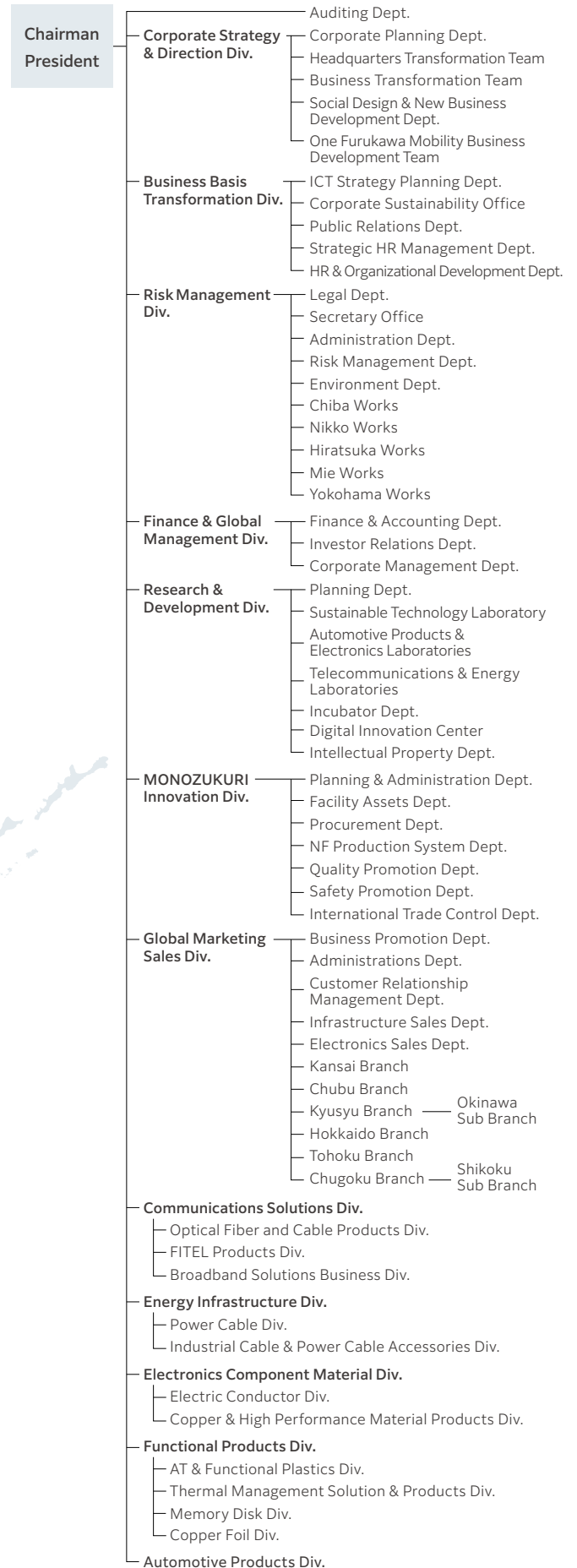
## Domestic Locations (Furukawa Electric)

(As of March 31, 2021)



## Furukawa Electric Organization Chart

(As of Apr.1, 2021)



## General Stock Information

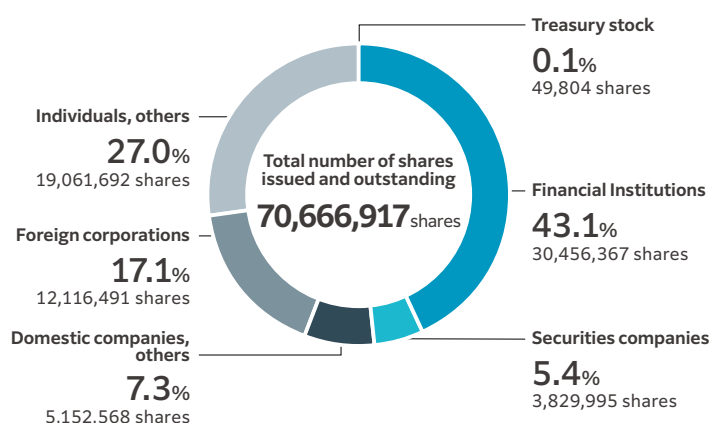
(As of March 31, 2020)

Stock code on the Tokyo Stock Exchange	5801
Stock exchange listings	Tokyo Stock Exchange, First Section
Number of shares authorized	Common Stock 250,000,000 shares
Common stock issued	Common Stock 70,666,917 shares
Minimum trading units	100 shares
Number of shareholders	Common Stock 49,322 persons
Shareholder register agent	2-1 Yaesu 1-chome, Chuo-ku, Tokyo, Japan Mizuho Trust & Banking Co., Ltd.*
Fiscal year	From April 1 to March 31
Shareholders' meeting	June each year
Accounting auditor	Deloitte Touch Tohmatsu LLC

\*The head office of Mizuho Trust & Banking Co., Ltd. will be relocated to the following address on November 22, 2021.  
3-3 Marunoichi 1-chome, Chuo-ku, Tokyo, Japan

## Distribution of Ordinary Stock Among Shareholders

(As of March 31, 2021)



## Major Top 10 Shareholders of The Company and the Company's Capital Contributions to Such Shareholders

(As of March 31, 2021)

Name of major shareholders	Number of shares	Shareholding ratio
The Master Trust Bank of Japan, Ltd. (Trust Account)	6,864,600	9.72
Custody Bank of Japan, Ltd. (Trust Account)	4,664,400	6.61
Custody Bank of Japan, Ltd. (Trust Account 4)	2,484,100	3.52
Custody Bank of Japan, Ltd. (Mizuho Trust & Banking; Employee Retirement Benefit Trust, Mizuho Bank Account)	2,413,500	3.42
Asahi Mutual Life Insurance Company	1,365,050	1.93
FURUKAWA CO., LTD.	1,329,045	1.88
Custody Bank of Japan, Ltd. (Trust Account 9)	1,225,600	1.74
Fuji Electric Co., Ltd.	1,100,000	1.56
Custody Bank of Japan, Ltd. (Mizuho Trust & Banking; Employee Retirement Benefit Trust, FURUKAWA CO., LTD. Account)	1,091,900	1.55
Credit Suisse Securities (Japan) Limited	1,054,500	1.49

\*1. Shareholding ratio is calculated with the number which deducted 49,804 shares of the Company's treasury stock.

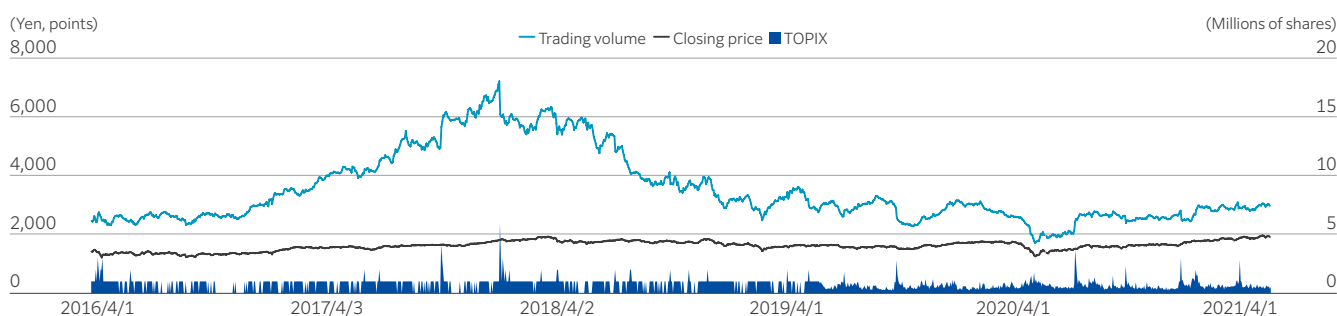
\*2. In addition to the 2,413,500 shares in a retirement benefits trust mentioned above, Mizuho Bank, Ltd. has a further 173 shares in the Company.

\*3. In addition to the 1,365,050 shares mentioned above, Asahi Mutual Life Insurance Company has a further 1,050,000 shares in a retirement benefits trust.

## Cash Dividends per Common Share

Fiscal year	2016	2017	2018	2019	2020
Interim dividend (yen)	0	0	0	0	0
Year-end dividend (yen)	55	80	85	85	60
Total dividend (yen)	55	80	85	85	60

## Stock Price and Trading Volume



note) We have carried out a reverse stock split at a ratio of 1 share for every 10 ordinary shares with an effective date of October 1, 2016. In addition, the number of shares in unit of the company's ordinary shares has changed from 1,000 shares to 100 shares. Because of this, in the graph, the pre-September 2016 stock prices are shown as 10 times, and the trading volume is shown as 1/10.



# Participation in Initiatives

Furukawa Electric participates in the following ESG-related initiatives.

## United Nations Global Compact

Furukawa Electric has been involved the United Nations Global Compact since February 24, 2020. The Group believes that respecting and fulfilling the ten principles of the United Nations Global Compact will lead to the strengthening of the management base in order to continue sustainable growth as a global company.

### The Ten Principles of the UN Global Compact

<b>Human Rights</b>	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and Principle 2: make sure that they are not complicit in human rights abuses.
<b>Labour</b>	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; Principle 4: the elimination of all forms of forced and compulsory labour; Principle 5: the effective abolition of child labour; and Principle 6: the elimination of discrimination in respect of employment and occupation.
<b>Environment</b>	Principle 7: Businesses should support a precautionary approach to environmental challenges; Principle 8: undertake initiatives to promote greater environmental responsibility; and Principle 9: encourage the development and diffusion of environmentally friendly technologies.
<b>Anti-Corruption</b>	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.



Furukawa Electric supports and has signed “A Statement from Business Leaders for Renewed Global Cooperation,” which was submitted to the Secretary-General of the UN by the UN Global Compact in September 2020. This is a statement that promotes greater unity between governments and private businesses.

## SDGs: Sustainable Development Goals

Furukawa Electric Group defined “materiality” as important management issues that the Group should address in order to achieve Vision 2030. The SDGs that are highly relevant to identified materiality are associated with multiple SDG targets. By working on materiality, the Group will contribute to the achievement of the United Nations SDGs.

Materiality	SDGs	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
<b>1</b> Creating businesses that solve social issues								●		●		●	●						
<b>2</b> Open, Agile, Innovative										●									●
<b>3</b> Building partnerships with various stakeholders																			●
<b>E</b> Developing business activities that consider climate change								●						●					
<b>S</b> Strengthening human capital management and organizational execution abilities						●			●		●								
<b>G</b> Building a governance system to strengthen risk management																		●	

\* Materiality and each SDG goal are associated with multiple SDG targets.

## Task Force on Climate-related Financial Disclosures

Furukawa Electric expressed approval of the recommendations by the Task Force on Climate-related Financial Disclosures (TCFD) in January 2020.



# External Evaluation

Furukawa Electric became a constituent of the following ESG-related indices and received external evaluation and certifications as follows during a period from April 1, 2020 to July 31, 2021.



FTSE4Good



FTSE Blossom Japan

## FTSE4Good Index Series/ FTSE Blossom Japan Index

Furukawa Electric was selected as a constituent of the FTSE4Good Index Series and the FTSE Blossom Japan Index of FTSE Russell for the first time (June 2021).

FTSE4Good Index Series

<https://www.ftserussell.com/products/indices/ftse4good>

FTSE Blossom Japan Index

<https://www.ftserussell.com/products/indices/blossom-japan>

## 2021 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

### MSCI Japan Empowering Women Index (WIN)

Furukawa Electric was selected as a constituent of the MSCI Japan Empowering Women Index (WIN) (June 2021).

THE INCLUSION OF Furukawa Electric Co., Ltd. IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF Furukawa Electric Co., Ltd. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.



### S&P/JPX Carbon Efficient Index

Furukawa Electric was selected as a constituent of the S&P/JPX Carbon Efficient Index, within the "Capital Goods" industry group, with decile classification 8 and carbon disclosure status as "disclosed" (March 2021).



### CDP

Furukawa Electric received an "A: Leadership Level" evaluation for "Climate Change" of the CDP in 2020, and was also selected as a "Supplier Engagement Leader" in the CDP Supplier Engagement Rating (SER) (February 2021).



SCIENCE  
BASED  
TARGETS

### SBT (Science Based Targets)

The Furukawa Electric Group's targets for reducing greenhouse gas emissions by 2030 were certified by the Science Based Targets (SBT) Initiative (August 2019).



### MSCI ESG Rating

Furukawa Electric received a "BBB" evaluation for the MSCI ESG Rating (December 2020).



### Health & Productivity Management Organization

Furukawa Electric was certified by the Ministry of Economy, Trade and Industry as one of the Health & Productivity Management Organizations (March 2021).



### Clarivate Top 100 Global Innovator 2021

Furukawa Electric was awarded the "Clarivate Top 100 Global Innovator 2021" by the Clarivate Analytics plc. (February 2021).

For details, please see Furukawa Electric's website.

External evaluation <https://furukawaelectric.disclosure.site/en/themes/109>

# About the Furukawa Electric Group Integrated Report 2021

## Editorial Policy

Since fiscal 2012, Furukawa Electric Group has published its Sustainability Report, containing Environment, Social, Governance (ESG) and other non-financial information beside business results, strategies, and other financial information. Since fiscal 2020, we have been publishing the Furukawa Electric Group's integrated report in order to help investors and other stakeholders better understand our Group's efforts and measures to improve corporate value over the medium to long term. We sincerely hope that this report will help you understand our important management issues we face as we advance toward achieving Furukawa Electric Group Vision 2030, as well as our efforts concerning climate change and corporate governance to strengthen all of the foundation of our ESG management, our Group's values, history, and our current situation.

We have used the following guidelines for reference.

- International Integrated Reporting Framework (International Integrated Reporting Council (IIRC))
- The Guidance for Collaborative Value Creation (the Ministry of Economy, Trade and Industry)
- Guidance on Climate-related Financial Disclosure (TCFD) Guidance 2.0 (the Ministry of Economy, Trade and Industry)

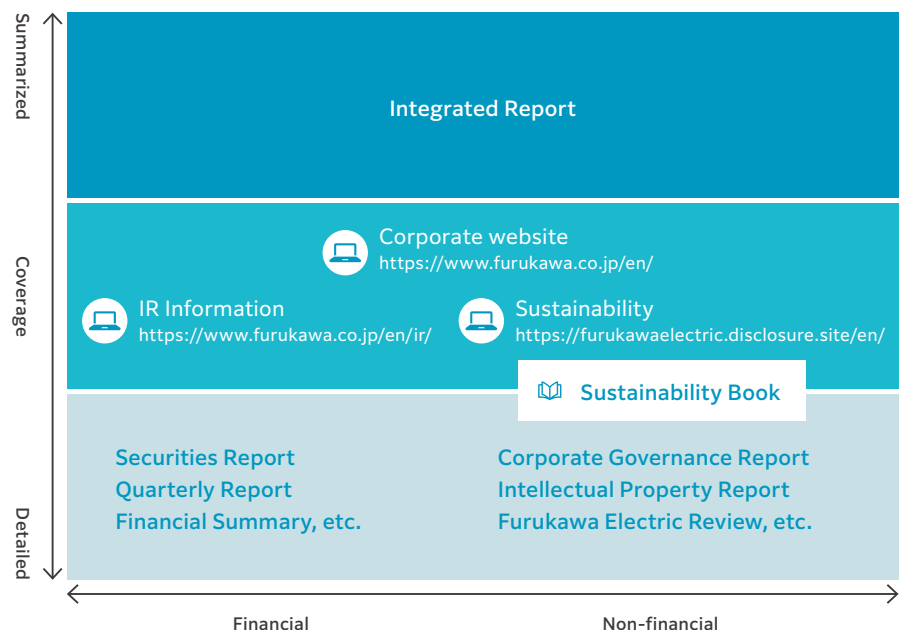


## Scope of This Report

<b>Period Covered</b>	Fiscal 2020, from April 1, 2020 to March 31, 2021 (Note) Includes selected information on past initiatives and activities during fiscal 2021.
<b>Organizations covered</b>	This report covers Furukawa Electric Co., Ltd. and group companies in Japan and overseas. Where activities are limited to specific regions or companies, this fact has been clearly indicated in the reporting.
<b>Disclaimer Regarding Forecasts and Projections</b>	This Integrated Report includes statements concerning the future strategies and earnings forecasts of Furukawa Electric Group. These forward-looking statements are based on information that is currently available to the Group. As it is subject to changes in the business environment surrounding the Group, the actual strategies and business may differ from those projected.

## Information Disclosure System and Positioning of This Report

This Integrated Report has concisely stated important financial and non-financial information regarding Furukawa Electric Group with the aim of promoting a better understanding of our medium- to long-term initiatives and measures for the improvement of corporate value by investors and other shareholders. Please also refer to Furukawa Electric's website and other reports, which post or publish other information not covered in this report or more detailed information.



# About Issuing of the Furukawa Electric Group Integrated Report 2021

I would like to say a few words on this occasion of issuing the Furukawa Electric Group Integrated Report 2021.

In fiscal 2020 we issued the Integrated Report 2020 and also held an ESG Briefing as the first attempt to make better known our Group's efforts to date regarding ESG management and the concept of the value creation process toward 2030. The Integrated Report 2020 was singled out by an asset manager as a "Highly-Improved Integrated Report, selected by asset managers that are entrusted with the domestic equities of the Government Pension Investment Fund (GPIF)."

In this new Integrated Report 2021, we present the progress of our initiatives of materiality toward achieving Vision 2030, in line with the concept of the value creation process with a plan period ending in 2030. Noteworthy points include the section on our basic policy toward carbon neutrality, particularly concerning environmental and climate change, and the expanded disclosure of skills matrices for directors and audit & supervisory board members, executive compensation systems, etc., particularly concerning corporate governance. A message from an outside director is also presented for the first time. We hope that you will see how our Directors

and Audit & Supervisory Board Members go about their work and how lively are the Board of Directors meetings. Hopefully this Furukawa Electric Group Integrated Report 2021 will help our shareholders, investors, and other stakeholders better understand our Group and lead to opportunities for constructive dialogues.

We are committed to further improving the quality of integrated reports, enhancing information disclosure and transparency, and promoting dialogue with stakeholders. We would appreciate hearing your unrestrained comments or requests in this regard.



October 2021

**Satoshi Miyamoto**

Director,  
Corporate Senior Vice President,  
and General Manager,  
Business Basis  
Transformation Division

## First Publication of Integrated Report

Our first integrated report was published in 2020. It was selected as a "Highly-Improved Integrated Report" by asset managers that are entrusted with the domestic equities of the Government Pension Investment Fund (GPIF).



<https://furukawaelectric.disclosure.site/en/themes/193>

## First ESG Briefing

We held our first ESG briefing online on March 4, 2021. We discussed our Group's efforts to date regarding ESG management and the concept of the value creation process toward 2030.



<https://www.furukawa.co.jp/en/ir/library/esg-briefing/>

## For inquiries

Investor Relations Department  
Finance & Global Management Division  
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Tokiwabashi Tower, 6-4, Otemachi 2-chome, Chiyoda-ku, Tokyo  
100-8322, Japan



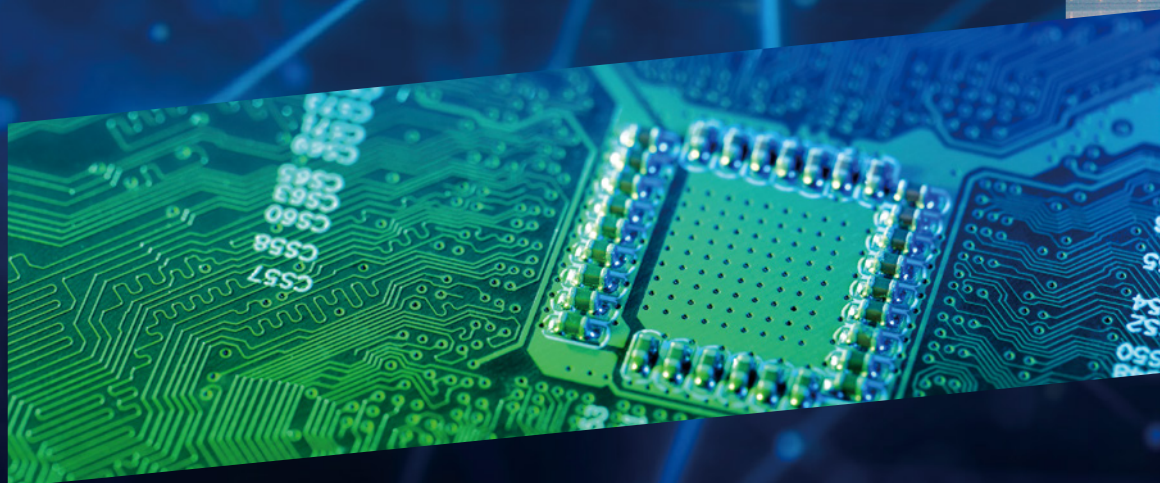
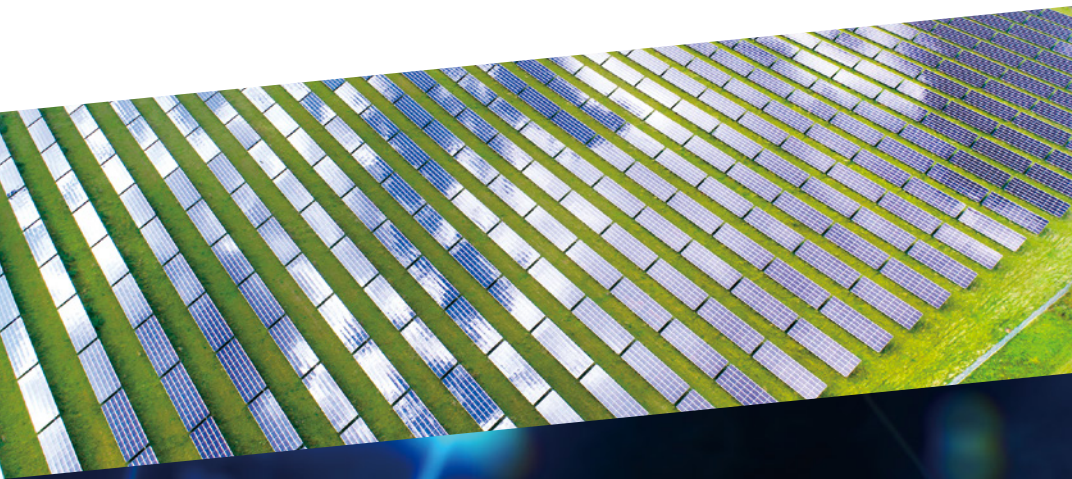
## Inquiry form

<https://www.furukawa.co.jp/srm/form/index.php?id=enir>

## Editing and Publication

Corporate Sustainability Office  
Business Basis Transformation Division  
Furukawa Electric Co., Ltd.





**FURUKAWA ELECTRIC CO., LTD.**

<https://www.furukawa.co.jp/en/>

**UD FONT**  
by MORISAWA