

The Sumitomo Electric Group's value has been rooted in the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles. We began as a producer of electric wires and cables and have used the wide range of technology we have built to help solve issues in society.

We are working toward our ideal of being a "Glorious Excellent Company", working together with a wide range of stakeholders to improve our value as a company in the medium to long term and make society better in future.

The trajectory of Sumitomo **Electric's growth**

In the past, the Sumitomo Electric Group had a comparatively closed, domestic business model. Our main trading partners were Japanese power and communications companies, for whom we developed and supplied high-quality, highly reliable electric and communication wires and cables. From the mid-1980s, regulations in Japan's power and communications markets were relaxed, and economic activities such as trade and investment became more globalized. Looking back on the last 20 years or so, we have transformed into a company that holds its own amid the free competition of the global market through strategies that encompass everything from our technology to our marketing.

As our businesses have diversified, advanced and expanded, we have adopted an organization model based on divisions and business units, enabling efficient group-wide management. This enables us to provide our expertise in technology, products and services that are needed in each area of our business while meeting the needs of our customers, trading partners and markets and using measures such as strengthening SEQCDD* and focusing on our "two pockets[†]" to ensure that each business unit is engaged in improving profitability. As a manufacturer, we structure our business so that our manufacturing, business and R&D arms function independently of each other, and reorganize our business based on the situation in each new era so that there is a healthy balance of power and everyone can share their views

Through these methods, the Sumitomo Electric Group has expanded its business in a variety of fields, both as Sumitomo Electric itself and as a wide range of subsidiaries and affiliates, reforming the structure of our business and strengthening our framework to respond strongly and flexibly to changes in our business environment while achieving sustainable growth.

- * Safety, Environment, Quality, Cost, Delivery, and Research & Development. The Sumitomo Electric Group's policy is to place these at the forefront in everything we do.
- † One "pocket", or source of profitability, is ongoing cost reductions and quality that earns our customers' trust and the other is setting prices that enable us to sufficiently recoup our costs and building the trust relationships that are needed to negotiate trade conditions with customers and get them on board. Sharpening both of these on a daily basis helps us to build a strong framework as a manufacturer

The Sumitomo Spirit is a fundamental value in our business

Sumitomo Electric began as Sumitomo Copper Rolling Works in 1897, producing products such as copper wires. This means we have formally operated for around 120 years, while the original copper business that brought up Sumitomo began around 400 years ago. Under our corporate philosophies of the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles, our group has maintained an unwavering basic policy of contributing to society through fair business practices. Since we were first established, we have adhered firmly to business

practices that are in harmony with society, and I think that stance has been the key to our advances and growth.

Our electric wires and cables, and the other products we have branched into, have been instrumental in building infrastructure that has made Japan what it is. We bring traditional Japanese business philosophies to our work, including "sanpo-yoshi" (satisfy all three sides, namely, the seller, the buyer and society) and the mindset that companies are public institutions. We believe that sharing these values with a wide range of stakeholders, including customers, trading partners, employees, local communities and shareholders, enables us to continuously increase our value as a company. Mr. Teigo Iba, the second president of Sumitomo, believed that we must not invest only in ourselves but in our country and society. This way of thinking is what shaped the philosophy of "mutual prosperity, and respect for the public good," which we still follow today. With global warming and disasters becoming more and more serious in recent years, it is becoming more crucial than ever for companies to act in harmony with the environment. The Sumitomo Spirit is our guiding principle as we work actively to find solutions to environmental issues, such as our storage cells, which promote the use of renewable energy. Thomas Carlyle, a British thinker, asserted that the laissez-faire doctrine rooted in economic relationships should be replaced by spiritual connections between people and that morality must be restored in relations between employers and workers. The spirit of this captain of industry, who was appalled by the damage caused by the pursuit of profits above all else and was guided by love for his fellow humans, is something I think we need to embody in everything we do.

Principles in the SDGs and ESG, such as a long-term view, sustainability, corporate contribution to solving issues and working for the public good, have seen a rapid rise globally in recent years. The Sumitomo Electric Group's corporate philosophy is well-aligned with the SDGs and ESG, and these principles are encapsulated by the Sumitomo Spirit that has been at the heart of our business since it first began around 400 years ago. We created a matrix to determine how the Sumitomo Electric Group activities can contribute to achieving the 17 SDGs, and initiatives to this end are now part of our day-to-day business. Working to achieve the SDGs is about working together as a group to serve others and contribute to society. This mindset is entrenched in our management and executives, and is reflected in how each of our companies is run, giving us a unified direction. It has been at the heart of the ongoing growth we have achieved over the years, and will continue to be part of Sumitomo Electric.

The strengths that have driven Sumitomo Electric's growth and advances

A wide range of technology from our original electrical cable business

In its early days, Sumitomo was a copper company, and we have drawn on the electric wire and cable technology we have developed to grow our business as we work together with our customers to respond flexibly to changes in what society needs. Our electric



wire and cable business has evolved from our original copper wire enterprise to power and communications cables and expanded into various fields to include automotive wiring harnesses, highly functional electric wires for information devices and printed circuit boards as society has developed further. We have actively sought to diversify our business, bringing the world revolutionary new products and technologies that evolved from our electric wire processing technology, including cemented carbide alloy, sintered powder metal products, optical fibers and compound semiconductors. Our products are wide-ranging with their own unique characteristics, but there is a commonality to every kind of technology we produce. Choose any of our products and follow its technology tree and you will be able to trace it back to the technology from our electric wire and cable business. I think that common ground is a major strength

Developing employees who can help to solve social problems

In 2005, we opened "SEI University", a company university for our employees. This training system carries on our tradition of solidarity and embodies the Sumitomo Spirit. It is a place for us to share our business strategies and visions, teach employees the fundamental principles for operating in a global market and foster kinship between our employees. We are in an age where we must take the initiative to solve global issues with no easy answers, and, now more than ever, there is a need for a high level of liberal arts education. It is this that will lead us in the right direction and help us to find solutions to problems that are so far outside of what is normal and typical. So how can we equip ourselves with that education? We must train ourselves to ask the deeper questions referring to classics, while keeping in mind that the answers will not reveal themselves quickly this is something we must continue with patience and persistence. Our employees are now more aware of Sumitomo's roots and the Sumitomo Spirit than they were before, showing that our liberal arts approach is gradually having an effect. The effect of our strong, unique training system is undeniable.

What we want our employees to become.

Terumasa Nakanishi, a Professor Emeritus of Kyoto University, wrote a book on the fall of the British Empire. One thing he said that stuck with me was that the British gentlemen behind the success of the British Empire were "mavericks with solid backbone". They would have needed to be in order to have built an empire like that. The rise and fall of a nation is dependent on its people. So it is with companies. That solid backbone calls to mind a wisdom from Mencius, who said that if you can say honestly that what you believe is correct, you will be able to move forward even if 10 million oppose you. And maverick is someone who would try to rise to the top by exploring possibilities from every angle when a normal way does not work. I tell our young employees in particular that

they must always strive to be a "maverick with solid backbone".

These are the kind of people to whom I want to pass on Sumitomo Electric's legacy.

The famous poem Youth by Samuel Ullman says "Nobody grows old merely by a number of years. We grow old by deserting our ideals." It is important to have ideals and passion no matter what your age. From dreams come ideals. From ideals come plans. Once you have a plan, you need to act. There is no success without action. I tell our employees that they must have a dream, but merely having one is not enough: they must work to make it come true. When you are running a business, you can use Sumitomo Electric's resources to achieve your dreams and ideals. I want our employees to work toward their dreams and ideals, pushing themselves and setting their sights high.

Working toward our ideal future state: a Glorious Excellent Company

The Sumitomo Electric Group aims to be a "Glorious Excellent Company." "Glorious" represents our unchanging qualitative vision for the group. We strive to earn the trust of our stakeholders and be a company the world needs. We pour our hearts and souls into everything we do, guided by the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles. "Excellent" represents quantitative measures of the corporate group we want to be: a group that generates excellent profits, accomplishes its mid-term management plan and meets its targets for metrics such as sales and operating income. It is with this ideal in mind that we are responding flexibly to major changes in the world around us, building a balanced business portfolio and working to achieve steady profits and growth. In our current midterm management plan, we are envisioning what the world wants for society and the environment in 2030 and working to improve people's lives by providing value in the form of a low environmental footprint, safety, comfort and social growth. I appreciate the ongoing support of all of our stakeholders.

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The Sumitomo Electric Group is consistently working to increase its value in the mid to long term and build a better society by mobilizing our broad capabilities and providing solutions to solve a variety of social issues. We draw on a wide range of tangible and intangible assets—our connectivity and transmission technologies, the diversity of business, manufacturing expertise, employees who embody the Sumitomo Spirit and the relationship of trust that we have built with our stakeholders.

Current business situation and market value

Our five main areas of business are Automotive, Infocommunications, Electronics, Environment & Energy and Industrial Materials. We combine these with new business ventures to expand our business in three key areas: Mobility, Energy and Communications. In the Mobility field, we contribute to motorization of the society by supplying essential automotive parts such as wiring harnesses and sintered parts. Our traffic control systems are helping to make road transport infrastructure safer, more comfortable and more environmentally friendly, with less congestion. We contribute to enabling the modern transport and logistics networks.

In the Energy field, we supply a variety of products that are essential for reliable power supplies, including various cables for power transmission and distribution networks, switches, transformers and various energy monitoring and control of systems, and batteries that are essential for broader utilization of renewable energy contributing to low-carbon energy for sustainable growth.

In the Communications field, we support the backbone of today's high-speed information-based society, supplying optical fiber cables, optical connector products, semiconductor devices and other products that enable high speed, high-quality communications.

The Sumitomo Electric Group's growth strategies

"Glorious Excellent Company" is the Sumitomo Electric Group's ideal future state. In our current mid-term management plan, VISION 2022, we seek to accomplish this by responding flexibly to major changes in the world around us and achieving stable profitability and growth. We envision how a society would be in about 2030 and outline how we could enable such society and expand our business with a balanced portfolio and provide values in the form of environmental friendliness, safety and security, and social comfort and vitality.

We anticipate major changes to take place; a

"revolution" in the automotive sector (such as the expansion of "CASE"), the proliferation of renewable energy and changes in energy management such as diversification and decentralization of power sources, more widespread adoption of 5G and future generations of communications technology, and further use of AI, IoT and big data. Due to the COVID-19 these social changes are likely to materialize faster than expected. It has been two years since VISION 2022 was established, and we can see that the basic direction taken in this plan has enabled us to keep pace with the ways the world has changed. While the Sumitomo Electric Group has developed through the so called "B to B (business to business)" model, I am conscious that it is important to be always mindful of the issues of the end customers and the society ("B to B to C/S"), to accurately determine new directions and mobilize the Sumitomo Electric Group's capabilities, to be able to supply new products and services and demonstrate the solutions. The Sumitomo Electric Group has so many strengths and assets: the connectivity and transmission

technologies we have developed in the 120 years we have been in business, the diversity of our business, the manufacturing excellence we have achieved through years of refinements, our wide-ranging research and development work spanning from materials to systems, our employees who embody the Sumitomo Spirit and the trust we have earned from our stakeholders. A company like ours that has worked in so many areas of business is well poised to solve a number of issues. And we welcome working with our partners within and outside the Sumitomo Electric Group to fulfill the resources and capabilities when needed. This is a great example of how we respond flexibly to challenges to build a better society, solve a variety of social issues and increase our value in the medium to long term.

Our response to the challenges posed by COVID-19

Upon the outbreak of COVID-19, our company established a COVID-19 Response Unit, led by me as the president and COO, and built a framework to enable us to assess how COVID-19 would affect our business bases around the world and respond quickly. We used these resources to improve the way we run our manufacturing sites, strengthening the improvement activities and on-site education and training we have always carried out, and tightening up our performance in SEQCDD*, the fundamentals of manufacturing.

* Safety, Environment, Quality, Cost, Delivery, and Research & Development. The Sumitomo Electric Group's policy is to place these at the forefront in everything we do.

Our corporate staff departments are assessing the effects and issues that arose from "work-from-home" work styles and considering how we can redesign our operations and the way we work to improve productivity when the pandemic is over.

Our business continuity plan helped us to maintain our supply chain, although we are reflecting on whether we sufficiently assessed the situation of tier-2 and tier-3 partners, and are applying what we have learned from this situation to make improvements such as expanding multiple sourcing.

The greater frequency and scale of disasters in recent years has also highlighted a need to strengthen risk management around our supply chains, and it is clear that we need to conduct regular reviews of our business continuity plans.

COVID-19 pandemic has further accelerated the digitalization of the business world, environmental concerns, and initiatives to increase resilience. While the Automotive segment was the most negatively impacted the Communications segment did relatively well, and it has raised us a renewed awareness of the importance of having a diversified portfolio and not

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being excessively selective or focused on specific areas. We intend to make our business framework stronger to adapt to these rapid changes in the business world and steadily develop businesses and products in our five areas of business to meet various demands in future. We believe this would allow us to achieve a "V-shaped recovery" after the pandemic, and this approach is already a part of the culture of the Sumitomo Electric Group.

The value the Sumitomo Electric Group offers

The Sumitomo Electric Group has always supplied products for social infrastructure and industrial materials in the "B to B" sphere. Take our Environment & Energy business for example. We are the only company in Japan today that supplies a full range of electric cables from ultra-high-voltage to lowvoltage, and we are conscious every day of how much our customers are relying on us. Copper wire rods are the backbone of our production in this area and have been behind the building of electrical infrastructure throughout society. With a further shift to renewable energy expected to take place in future, our Environment & Energy business will have a lot to contribute. In Communications, we have been involved in the building of Japan's optical fiber network, which has transformed communications infrastructure. We see vast potential for further contribution to the building of info-communications infrastructure in future: as a supplier of optical submarine cables and relay devices with a high degree of added value, and components for transmission devices used in antennas, we will be involved in providing solutions for increasing volumes of communications data and the popularization of 5G and future generations of communications technology.

We estimate that we are among the top shares of the world's market for automotive wiring harnesses. While the form of these products may change, wire harnesses are an essential product in automobiles, and we will capitalize on our economies of scale and global supply chain to make further contributions to a society where cars are commonplace. With that said, major changes are currently taking place in the automotive industry. For example, the rise of "CASE" was expected to result in an increase in ride sharing, and there was speculation that demand for new cars could decrease globally, but with the outbreak of COVID-19, some reports say that people are reluctant to travel in shared cars. OEMs are keen observers of customer trends and so should the Sumitomo Electric Group be. We keep an eve on what our customers gravitate to so that we can offer them the products and services they are looking for.

In VISION 2022, the mid-term management plan that we are currently working on, we envisaged a society at about 2030 as a "smart society," where people and items are connected through networks such as infocommunications, electricity and transportation,

for coordination and optimization. One thing I think we can say for certain is that mobility, energy and communications will not be discrete areas in the society of the future. We certainly seem to be heading in that direction, and COVID-19 has seen those changes happen faster than expected. Ultimately, we will need to adapt our business based on what our customers are looking for. As the manufacturing industry becomes more service oriented, we may need to adjust the business framework of the Sumitomo Electric Group to become more solutions-based. It will no longer be enough to simply make things. We will need to think about the scope of services we can offer and what kind of value we can offer our customers, and the changes we will need to make will be all encompassing, right down to the framework of our business operations.

Diversity and changes in the way we work

The Sumitomo Electric Group currently has over 280,000 employees in about 40 countries around the world. In order for Sumitomo Electric to outperform our competition around the world and grow further, it is essential that we fully mobilize our technologies. products, business models and all other resources, and our employees are the backbone of it all. It is crucial to hire diverse, high-performing employees and give them a working environment that will keep them motivated and get the best out of them. When I worked at one of our subsidiaries in Europe, there were employees of all nationalities and gender in every level of management. While manufacturing companies in general might have not attract many women, it was clear that our companies in Japan needed to be more diverse than they were. We have now taken a variety of measures here in Japan to promote diversity and improve our working conditions, including building a framework to support employees balancing work with life situations such as raising children or caring for family members, changing the format of our work, introducing and then expanding our work-from-home arrangements, supporting non-Japanese employees and hiring more employees with disabilities. In June 2020, we established a Diversity and Inclusion Department, reporting directly to the president, to accelerate these measures and entrench them further in our

Generally speaking, many Japanese companies have relied on a certain level of homogeneity to accelerate our growth: we hired in April, taught our employees to be generalists and sought to be a company where everyone thinks the same thing and is heading in the same direction. Going forward, excelling in competition will depend on diverse employees bringing different strengths to the table. I want to encourage every employee to become an expert in at least one area and then use that expertise to take on challenges such as solving social issues.

My background is in accounting, and in addition to many years of experience overseas, I have expertise in Japan-based accounting that has served me well in many settings overseas. I find new things interesting and I always try to get to the bottom of what systems are in place. When you enjoy your job, you are interested in the products you handle and the work that you do, and that makes you want to learn more. If you have a base of expertise, you can come up with good solutions to problems when you encounter new situations.

The company I want Sumitomo Electric to be

As the president and COO of Sumitomo Electric I would like to achieve a better balance in the company's portfolio. This means accelerating the growth in the segments other than the Automotive segment. We will strengthen the competitiveness of our main products such as power cables and magnet wires in our Environment & Energy segment, and battery tab leads in our Electronics segment. In addition, we will develop new businesses that would contribute to solving social issues; such as superconductors and redox flow batteries, and build on our basic materials technology to develop unique new products in the cemented carbide tools area. I particularly pay my attention to promote synergies among the business units. Each month, I schedule periodic dialogue with the business unit heads and share with them information such as factory locations that would become available globally for other business unit might utilize.

I believe that by making these efforts step by step towards 2030, we would materialize the vision we set out in VISION 2022 and onwards, and continue to be a company with solid standing and presence. You can expect a lot from the Sumitomo Electric Group in the years to come.



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Figuring out the Social Issues that the Sumitomo Electric Group Needs to Focus on to Become a Glorious Excellent Company

We used a materiality analysis to figure out the awareness of social issues that is needed in order to provide the value and carry out the initiatives to improve CSR and adopt ESG that we outlined in VISION 2022, the mid-term management plan we established in 2018, and to carry out the initiatives we mentioned in our CSR Report. The analysis confirmed that the issues we need to be aware of are not significantly different from the ones we had in mind when we established VISION 2022. Concerted effort is being put into action by the whole of the Sumitomo Electric Group to provide value through innovation and strengthen the foundations of our business. This will contribute to solving the social issues we have judged to be particularly important, and this in turn will enable sustainable growth of the Sumitomo Electric Group.

Verification process

1. Identification of social issues

We began by narrowing down the 169 targets of the SDGs, the Global Risks in Global Risks Report 2020 and social issues that we ourselves were aware of. We then selected issues that were in line with our business activities.

2. Evaluation from the perspective of the Sumitomo Electric **Group's business activities**

We evaluated the importance for the Sumitomo Electric Group to address each issue based on our business strategies and the measures outlined in VISION 2022. We evaluated this from the perspective of our three key areas— Mobility, Energy, Communications—and from a corporate perspective.

3. Evaluation from the perspective of our stakeholders

We evaluated the importance of each social issue based on sustainability information from business partners and the criteria of ESG surveys.

4. Materiality analysis (identification of key issues)

Through our evaluations, we identified social issues that are important both to the Sumitomo Electric Group and its stakeholders. We then grouped similar issues together, giving us 11 main issues that we needed to focus on.

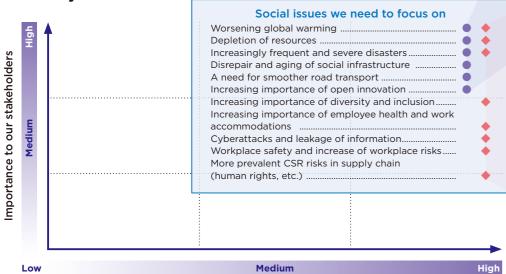
5. Checking how these issues align with the social issues that VISION 2022 is seeking to solve

We confirmed that the social issues we identified as focal points in this evaluation process are consistent with those that VISION 2022, our mid-term management plan, is seeking to solve.

6. Approval by management

The validity of our materiality analysis was checked at our management conference and Board of Directors' meeting, and the results were approved.

Materiality matrix



Importance to Sumitomo Electric

Values the Sumitomo Electric Group offers Our value creation process (p. 24-27)

We will continue to addressing those social issues marked with
in "Social issues we need" to focus on" (the list of social issues identified in our materiality analysis) by providing the value we outlined in VISION 2022.

Development of eco-friendly products

Encouraging use of renewable energy

r planet for nerations healthier future

Car-to-car and car-to-road connectivity for a safer driverless society

that limit CO₂ emissions

with smart energy systems



Innovation by mobilizing the whole of Sumitomo Electric

Creating a secure urban environment with enhanced infrastructure durability

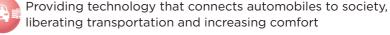


comfortable, owing society

Achieving faster data transmission through advanced infocommunication technologies underpinning an IoT-based society

Promoting recycling technologies and pursuing materials development

less dependent on scarce resources, driving resource-friendly practices







Developing solutions that connect cars, houses, people, and communities, enabling effective energy-sharing

Initiatives to strengthen our bases Our bases to support our growth (p. 38-47)

We will help to solve the eight social issues marked with ◆ in "Social issues we need to focus on" (the list of social issues identified in our materiality analysis) by strengthening our three bases. We reclassified the initiatives for improving CSR and adopting ESG that we set out in VISION 2022 and the initiatives we mentioned in our CSR Report to align with the bases of our activities.

Manufacturing

- **S** Promotion of safe working conditions
- **S** CSR procurement (90% or more transactions within domestic group)
- **E** Pursuing measures to combat causes of global warming
- **E** Strengthening our response towards resource saving (reducing waste emissions and promoting recycling)

Organization

- **S** Promotion of Diversity Management (gender-parity and equalopportunity employment, etc.)
- S Diversification of employment formats and facilitation of sound management practices
- **S** Strengthening the development of human resources (enhancement of group and global training opportunities)

- **G** Strengthening of governance
- **G** Strengthening of information security
- **G** Strengthening of disaster measures

E (Environment), **S** (Social), **G** (Governance)

Relevant **SDGs**























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Sumitomo Electric's Value Creation Process Glorious Excellent Company Sumitomo Electric's Businesses **Electronics** Our three bases: the strengths we have built thus far **Human Resources and Manufacturing Base Financial Base Organization Base** Wide range of technology from our original A steady financial base Our employees embody our electrical cable business ⇒p. 38 business spirit **Business resources** Production capital Intellectual property **Human capital** Social capital Financial capital Global production sites (ideas/tacit knowledge) We have diverse We have strong relation-We have a strong and independent R&D employees working for us ships with our customers financial base to support We have built a wide sites around the world and other stakeholders sustainable growth range of technology and ▶ Employees: 283,910 ▶ Trust with customers & suppliers ▶ Consolidated Capital-to-asset ratio: knowledge since we were built via daily business activities companies: 49.0% first established Overseas employees: Trust relationships with 416 (40 countries) 0.40 R&D target (5-year ▶ DE ratio: affiliates of the group total): ¥600 billion ▶ R&D: 3 sites in Japan AA(JCR) Ranking: Patents held: 17.986 2 sites overseas AA-(R&I) with around 1.750 suppliers. A governance framework that leads to success in our strategies

Social issues we need to focus on

- Worsening global warming Depletion of resources Increasingly frequent and severe disasters
- Disrepair and aging of social infrastructure A need for smoother road transport
- Increasing importance of open innovation Increasing importance of diversity and inclusion ● Increasing importance of employee health and work accommodations ● Cyberattacks and leakage of information
 - Workplace safety and increase of workplace risks More prevalent CSR risks in supply chain (human rights, etc.)

generations

Products and services

Mobility

Communication

The value we provide to society

A healthier planet for future

energy with smart energy systems Promoting recycling technologies and pursuing materials development less

Development of eco-friendly products that limit CO₂ emissions Encouraging use of renewable



Energy



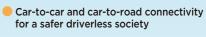


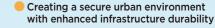












 Increasing telecommunications security for safety and privacy

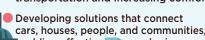




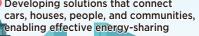
















Improvement of corporate value Strengthen our foundations and ability





(corporate governance, compliance, risk management)

The Sumitomo Business Spirit and Sumitomo Electric **Group Corporate Principles**

How the Sumitomo Electric Group Creates Value

Here is an explanation of each element of the diagram on pages 24-25 that shows the Sumitomo Electric Group's value creation process.

The tree on the left represents the Sumitomo Electric Group itself, where the Sumitomo Spirit and our corporate principles are the roots from which our businesses grow, and the city represents future societies, where we will provide value through our business.

The circle in the center represents a cycle where the value we create through our business activities is a resource that can be used to create new businesses, creating a cycle of value creation.

It is through this value creation process that we are working to provide value for people's lives by contributing to the building of a green society, a safe and secure society, and a comfortable and viable society. This will also lead to sustainable growth of the Sumitomo Electric Group.

A Glorious Excellent Company

A "Glorious Excellent Company" is the Sumitomo Electric Group's ideal future state. Achieving this requires a strong corporate philosophy and sustainable growth.

Sumitomo Electric's businesses and key areas

At present, our five main areas of business are Automotive, Infocommunications, Electronics, Environment & Energy and Industrial Materials. We combine these with new business ventures to expand our business in three key areas: mobility, energy and communications.

The fruits of the tree represent the five areas of business that have grown from the strong roots of our business bases and show how our business in mobility, energy and communications and other areas provides many forms of value to society.

In each area of business, we are seeking to expand the value we provide to society through our variety of products and services that are essential to people's lives.

For details on specific products and services, see "Sumitomo Electric's connectivity and transmission technologies in society" (p. 8-9), "Sumitomo Electric's vision for 2030" (p. 28-37), and "Overview of Business" (p. 62-73).

Our three bases: the strengths we have built thus far

The strengths the Sumitomo Electric Group has built thus far take the form of three bases: our manufacturing base, our human resources and organization base and our financial base.

Manufacturing Base

Wide range of technology from our original electrical cable business

We have always worked with our customers to respond flexibly to changes in society's needs. This has seen us supply an enormous range of technologies and products, including an extensive range of materials. Through this work, we have built the following strengths, which we bring to collaborations both within and outside the company, achieving synergies on a whole new level.

Manufacturing

- Taking SEQCDD* one step further
- Creating strong factories through continuous improvement (kaizen)
- Creating eco-friendly products

Research & Development

- Core technologies from materials to processes
- Variety of leading technology
- Consistently challenging ourselves to create innovative technology

Human Resources and Organization Base

Our employees embody the Sumitomo Spirit

- Entrenching the Sumitomo Spirit and Sumitomo Group Corporate Principles in our employees
- Developing employees who can work on the global stage

One of the tenets of the Sumitomo Spirit is Respect for Human Resources, as without our employees our company would not exist. Finding and developing excellent employees has been the most crucial job of each generation of management, and the ethos of "people make the enterprise" lives on in everything Sumitomo does.

Financial Base

A steady financial base

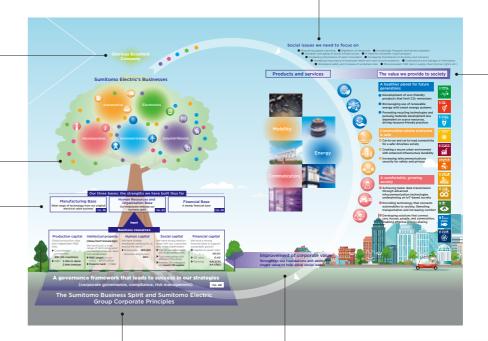
 Steady financial operations that do not rely on quick profits

We maintain a strong financial framework (ideally a 50% capital-to-asset ratio) and work to achieve sustainable growth proportionate to profitability and improve capital efficiency.

* Safety, Environment, Quality, Cost, Delivery, and Research & Development. The Sumitomo Electric Group's policy is to place these at the forefront in everything we do.

Awareness of social issues

We used a materiality analysis to identify social issues that are particularly crucial for us. We have mobilized the whole of the Sumitomo Electric Group to provide value through innovation and strengthen the foundations of our business. This will contribute to solving the social issues we have judged to be particularly important, and this in turn will enable sustainable growth of the Sumitomo Electric Group.



The value we provide to society

Thus far, the Sumitomo
Electric Group has provided
a wide range of products and
services to supply energy,
transmit information and get
people and cargo from point
A to point B. The nine forms
of value we provide are a
constant work in progress, and
we will keep working with our
customers to improve people's
lives.

Improvement of corporate value

Strengthening of our business resources / ● Strengthening of our 3 bases (Manufacturing / Human Resources and Organization / Financial) / ● Growth of mobility, energy and communications businesses / ● Strengthening of governance framework

Through these initiatives, the Sumitomo Electric Group will improve its value as a company by strengthening its foundations and ability to create value to help solve social issues. Our series of value creation processes will give us stronger business resources that we can then use to create even more value.

The principles and business resources behind our value creation

The Sumitomo Spirit and Sumitomo Electric Group Corporate Principles

The Sumitomo Spirit and Sumitomo Electric Group Corporate Principles center on the traditional principle of "Mutual Prosperity, Respect for the Public Good." Balancing our own benefits with the greater good and contributing to society have been at the heart of our business activities.

Business resources

We allocate our business resources in a way that enables us to respond flexibly to changes in social needs, which facilitates sustainable growth and earns society's trust.

A governance framework that leads to success in our strategies

In order to seek sustainable corporate growth and to increase corporate value over the mid-to-long term, we believe that it is critical to ensure transparency and fairness of management activities through appropriate corporate governance, as well as to draw up and implement a growth strategy fully utilizing our management resources, with the key word being "innovation." At the heart of our work to achieve these aims are initiatives to further enhance our corporate governance.

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Sumitomo Electric's Vision for 2030

The society we live in is seeing major changes.



Energy: Eco-friendly energy will bring about more sustainable societies.

Communications: We will live in a smart society where everything is connected by a network.

With these changes, new social needs will arise and the mobility, energy, and communications fields will interact and create new markets. It is likely that a new style of municipality with advanced designs will appear as a result.

And the Sumitomo Electric Group will play a part in the creation of those future societies by drawing on the connectivity and transmission technologies we have developed since our first days in business to create new products, services and solutions.

The world is calling for

A healthier planet for future generations Communities where everyone is safe A comfortable, growing society

We will respond to those calls to help make the world a better place.

* Connected, Autonomous, Shared, and Electric, the key trends in the automotive field.



Sumitomo Electric's connectivity and transmission technologies in society

The 2030 Mobility, Energy, and Communications fields we envision

Sumitomo Electric is working to bring out epoch-making products and services to support the transformation of society. People won't see what we're doing, but they'll enjoy the results.



Now we're connected

no matter where in the

world we are!

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Our value creation story in the Mobility field

The Sumitomo Electric Group's new challenges as mobility evolves

Our contribution to post-war motorization and the establishment of our global manufacturing framework

Sumitomo Electric received its first order for wiring harnesses for automobiles in 1949. We then decided to build on our electric wire business and diversify. We foresaw that wiring harnesses would become a bigger source of business in the automotive industry in the future, and in 1959 we made them a full-scale business. As part of our policy to diversify our operations, we decided to enter the wire harness business, anticipating the future development of the automobile industry. We also expanded into the automotive parts business, including sintered powder metal products used in automotive engines, contributing to the rapid motorization of society at the time. We have also worked to improve traffic environments by supplying traffic control systems to reduce accidents and congestion. The rise in the yen's value as a result of the signing of the Plaza Accord in 1985 led to an expansion in overseas production by automotive manufacturers. Sumitomo Electric expanded its overseas production to meet customers' needs. A particular example of this is our establishment of a global production framework for our wiring harnesses. We drew on the manufacturing knowhow and experience we had gained and trained employees in each new country and region to build a system that was developed in Japan and consistent throughout the world to ensure that each of our global sites around the world delivered the same top quality products. We now have 230,000 employees producing wiring harnesses in 31 countries, making us one of the top suppliers of wiring harnesses in the world. This was made possible by the power of our "genba," or the ability to conscientiously and thoroughly carry out decisions on site, which is our greatest strength.

Our evolution as the CASE* age dawns

egrated Report 2020

In recent years, CASE is bringing about what have

been called once-in-a-century period profound transformation in the automotive industry. We have been praised for our development and production of innovative new products, such as aluminum harnesses that help reduce vehicle weight and contribute to improved fuel efficiency and reduced CO₂ emissions, rectangular magnet wires for electric vehicles and tab leads for lithium ion car batteries. Automakers are now asking us to propose our views for future needs as we are a unique company that has capabilities in the energy and communications fields. In other words, where we previously built our business by responding to customers' needs and specifications

and gaining their trust, in the future we will need to think about the value that mobility can provide to society and propose solutions that meet the needs of customers. This means that we need to dramatically change the way we think and operate.

To facilitate this, we have established the CAS-EV[†] Development Promotion Division, which enables our research, planning, and sales teams to work more closely with each other as well as with electrical, and infocommunications divisions and execute the entire process from marketing to creating solutions and business planning more effectively.

Our engineers are upskilling to broaden their perspective from parts to the whole vehicle and to create a proposal-based CASE business model that incorporates processes that have traditionally been handled at the customer's side, such as system and module design, function definitions and vehicle planning.

- * Connected, Autonomous, Shared, and Electric, the key trends
- [†] Electric vehicles supporting the C, A, and S elements of CASE.

Contributing to build a better way of life

Our expertise goes beyond the automotive field, encompassing infocommunications, environment and energy, electronics and industrial materials. We plan to make use of this advantage to create new products based on a wider view of future societies and new perspectives on community development.

To give an example of our view of future societies, we could build a safe and secure, congestion-free mobility society through combinations of mobility and communications technology, such as collaborations on Al-based congestion prediction and traffic control systems, information sharing systems that use sensors in cars and on roads to give warnings about hazards such as blind spots and obstacles on the road and the creation of a reliable communication environment that guarantees the security of onboard information. This will allow those aboard autonomous-driving cars to use their time effectively. It will also provide a

comfortable space for families and groups of friends to enjoy entertainment in their car, and enable the elderly, people with disabilities and those who struggle with driving to travel more easily and comfortably. Then there's the potential for fusions between mobility and energy. Advances in IoT and blockchain technology will lead to a rise in cloud-based energy

transactions between individuals—for example, it will not be uncommon to see EVs running solely on local renewable energy, which will mean more local production and consumption of energy. In the event of a disaster. PHVs will become storage batteries and IoT-based energy management technology will make it possible to remotely control a large number of PHVs and supply electricity where it is needed. As mobility becomes more and more seamlessly interconnected with fields such as energy and communications, the role of vehicles will shift from a means for transporting people and goods to their destination to a medium for providing optimized services and a high quality of life for people and society as a whole. Mobility will likely become a part of social infrastructure and an asset of

These changes will probably take place gradually, and we will be involved in every stage, drawing on our multifaceted business that grew from our origins in electric wires and bringing the knowledge, technology and products that will be needed to make these future societies a reality. By sharing our vision with customers in the automotive industry and a wide range of other fields, we will provide the value, products and services that society is looking for so that we can contribute to a better tomorrow.

1 Contribution to eco-friendly mobility

These cars have no CO2 emissions at all that's awesome!



- Aluminum wiring harnesses
- Tab leads
- Rectangular winding wires for motors

Contribution to the building of nextgeneration transport networks



- Wireless and wired communications technology (highly reliable highcapacity communication with minimal delays)
- Sensing technology
- Traffic control systems

Contribution to self-driving societies



- Wiring harnesses
- High-speed
- communication cables
- Technology for communication between cars and roads

Contribution to mobility that is more than a means of transportation

Movies in the car! It's like a multipurpose room on wheels!

- Wiring harnesses
- High-speed communication cables





EV charging cables Energy management systems

Our value creation story in the Energy field

We pride ourselves in supplying technology that keeps energy infrastructure running

How our electric cable business grew into a global corporate business

Sumitomo's copper business has a history of over 400 vears. Sumitomo Electric's predecessor. Sumitomo Copper Rolling Works, was established in 1897, and the company began to make a full-fledged contribution to the energy sector in 1908, when it started manufacturing power cables. Our early years brought one struggle after another, but with the passion of so many employees, we improved our technical performance little by little and got this business on track. Since then, we have built an impressive track record: in 1911, we laid the first Japanese-made high-voltage underground electric cables between Kyoto and the nearby Fushimi area, and in 1922 we laid the world's longest submarine cable at the time, spanning 21 km between Niihama on Shikoku to the Shisakajima Island. From the post-war rebuilding period onward, we have diversified into a wide range of areas outside of electric wires, but energy has remained one of our key areas and we have achieved steady growth ever since. More recently, we received an order for 400,000V DC submarine cables connecting the UK and Belgium in 2015. In the same year, we installed one of the world's largest redox flow batteries at the time in Hokkaido, and in 2017 we began a proof-of-concept operation of a storage battery system in San Diego, California using some of the largest redox flow batteries in the USA. In 2020, we completed a joint project with group companies Nissin Electric and Sumitomo Densetsu to build Wind Farm Tsugaru, Japan's largest wind power plant. These are just a few examples of how we have contributed to the building of energy infrastructure not only in Japan but around the world.

Channeling the Sumitomo Spirit into contributions in the energy field

When we look back on over 120 years in business, the strengths that stand out are what is known in Japanese as shinyo-kakujitsu (placing importance on integrity and sound management) and fusu-furi (always acting with integrity in pursuit of business). These values are encapsulated by the Sumitomo Spirit. There have been times when the prices of copper and other raw materials have soared, such as when the Great Kanto Earthquake of 1923 severely damaged the facilities of electric wire

manufacturers and when the black market was rampant due to the shortage of commodities immediately after World War II. We did not allow the promise of those profits to compromise our principles: above all, we were a company that focused on the interests of society as a whole, and valued the attitude of gratitude to society and harmony with the public interest. That spirit is still alive to this day. We felt the same sense of responsibility to society when disasters such as the Great Hanshin Earthquake and the Great East Japan Earthquake occurred, and our responses have earned us as much trust and confidence from our customers as the results we have produced throughout our years in business. In the field of energy, demand for submarine cables and other equipment to transmit electric power from large-scale offshore wind farms to land has been increasing in Japan in response to the growing interest in global environmental considerations. While the use of renewable energy is expected to increase in the future, it is necessary to mitigate the effects of fluctuating output with large-scale storage batteries in order to further promote the use of renewable energy. To maintain and manage power transmission and distribution networks while ensuring the stable operation of power systems. the Sumitomo Electric Group will demonstrate its strengths in proposing total solutions by utilizing its wide range of products, including storage batteries, systems and electric cables, and its comprehensive capabilities to handle construction work for electric power facilities. Furthermore, by developing a system that enables remote monitoring of existing underground power lines with a sensor network, for example, we will address social challenges such as reliable electric power supplies and labor shortages, not only through manufacturing, but also by providing services utilizing AI and IoT. Wide-ranging demand is also occurring overseas: highvoltage cables in the many European countries that are shifting to renewable energy, overhead power transmission wires in countries and regions where power infrastructure is underdeveloped, and submarine cables to connect islands in ASEAN countries. We anticipate each area's needs and develop products that will meet them. With our world-class technology and highly attentive service, we are helping to lay the foundations for better societies by contributing to the widespread adoption of renewable energy and the building of local infrastructure

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Helping to build a better way of life

When we take a broader look at the energy field, we can see that there will be less and less separation between energy and other fields such as mobility and communications in the future. For example, highperformance storage batteries will make it possible to set up charging stands that supply renewable energy. We are also likely to see more widespread use of systems where people and companies using "green electricity" that is 100% renewable energy will be able to receive special deals, which will lead to greater use of mobility with no CO₂ emissions. As households become able to generate their own electricity through a combination of solar systems and storage batteries, energy resources around each municipality, such as storage batteries in electric vehicles and local renewable energy, will be connected by IoT or Community Energy Management Systems (CEMS) and adjusted based on supply and demand. This means that in the event of a disaster, members of the community will be able to share communal energy sources if the primary energy supply network is disrupted and thus improve their resilience to disasters. Sumitomo Electric possesses a wide range of knowledge and technology that will be a part of future societies. Examples include our electric wires and cables, redox flow batteries, gateways for HEMS (home energy management systems), which control the storage batteries and power devices that are key devices for household consumption of renewable energy and VPP (virtual power plants), which are a key focus for prosumers on the demand side, energy management systems and the communications technology to control them. The Sumitomo Electric Group will consider what value we provide to customers and create solutions that incorporate all of this value. We will incorporate ecofriendly solutions, strengthen disaster measures, and provide greater comfort to energy users. Taking a long view to 2050, hydrogen is also expected to be used as an energy source to enable decarbonization, and the group is actively pursuing research and development for practical use in this field through open

innovation. The Sumitomo Electric Group will continue

to contribute to a better tomorrow, taking pride in

supporting society through the building of energy

infrastructure.

Contribution to widespread adoption of renewable energy such as offshore wind



- Submarine cables
- Electric transmission and distribution equipment
- Power conditioners
- Contribution to the stabilization of electricity supply in remote islands and unelectrified areas



- Submarine cables Overhead conductors
- Redox flow batteries
- VPP technology
- Energy management technology
- Contribution to eco-friendly mobility



- EV charging cables
- Energy management systems
- Tab leads
- VPP technology
- 4 Contribution to energy conservation in households



- HEMS gateways that control household power devices
- Household storage batteries
- VPP technology
- Energy management technology
- Communications technology
- Contribution to a stable supply of electricity and local production and consumption of energy through effective networking



- HEMS gateways that control household power devices
- Storage batteries
- VPP technology
- Energy management technology
- Communications technology

Our value creation story in the Communications field

The Sumitomo Electric Group's ventures into technology that will enhance communication

Our contributions to the communications field

We have been involved in the communications field since 1900, when we supplied the Japanese Ministry of Communications with telephone wires (silicon-copper wires) that withstood the weight of snow and did not break easily. After the success of these wires, we established Sumitomo Electric Wire and Cable Works (now Sumitomo Electric Industries, Ltd.) in 1911. Through the supply of communication cables, we contributed to the spread of telephones and their value of fostering communication between people in different locations. In 1964, while continuing to support the widespread adoption of phones, we began exploring new areas of research. We knew that we were on the eve of an information society and that computers would be the next technology to play a core role in society, so we had to incorporate a great deal of computer elements into our new business at that time. Through our intrapreneurship system, we laid the foundations of a variety of new businesses that have been key elements of our information society, including the forerunners of traffic control systems, semiconductors and flexible printed circuits for electronic products. We also turned our attention to optical fibers, as the word on the street was that they were "the dream communication method" and "the final stage of communication for humanity." We began research and development of optical fibers in 1970 and created an innovative optical fiber mass-production technology called vapor axial deposition (VAD). In the 1980s, we expanded our scope to include devices and systems for optical transmission. We threw ourselves into initiatives to achieve "Optopia," the ideal of a prosperous society running on optical communication technology, and have played a part in the development of our information society. As audio communication took root, digital communication grew to include sending text, pictures and video and the world shifted from wired to wireless communication, we established a B to B business to supply products to companies such as telecommunication service providers. We worked with many such companies to achieve success and meet their targets, acting as what is known as an "enabler company" to support the communication revolution from behind the scenes.

Extensive range of infocommunications products

Our strength lies in the way we anticipate social changes and needs and carry out cutting-edge research and development while sharing our vision for future directions of products and new businesses with communications companies and various other customers. Many of our successes have come from a "technology out/marketing in" approach. Whenever our customers want to adopt the most advanced technology, we draw on our wide range of technology, striving to contribute not only as a supplier but as a partner. Trust is a major focus—it is part of the Sumitomo Spirit. This, along with the way we are constantly refining our technology, has been a major source of strength. We are currently contributing to the building of the most integral communications infrastructure in our information society with a wide range of products from general optical fibers to ultra-low-loss optical fibers used in submarine cables, ultrahigh-fiber-count cables for data centers, optical connectivity products and GaN devices for 5G mobile base stations.

Social changes that have taken place in recent years include the popularization of IoT, streaming of videos and an increase in cloud services. This has seen online data traffic increase by more than 20%, an enormous leap that has only been amplified by COVID-19 restrictions. Initiatives are underway to bring about a shift to smart cities, including the use of data to drastically improve energy efficiency and informatization in the mobility field, which can be seen in technology such as connected cars. XR* technology, a new video service that achieves much greater realism, is being adopted with the arrival of 5G wireless communication, which enables high-speed, high-capacity data transmission with low latency. We can expect to see further popularization of support robots and advances in satellite and wireless communication technology to connect areas that do not currently have an internet network. Data traffic will increase even more and the technology for processing the data will become more advanced. And behind the infocommunications infrastructure that runs these new services will be communications networks and data centers. Data traffic will increase in speed and volume in communications networks, and software will be adopted to enable flexible control of data traffic. An increasing number of hyperscale data centers will be built to collect and store large volume of information and process it efficiently. And edge computing will be used to enable low latency

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in communication services, decentralization of data centers and processing of data at a closer proximity to the user

But these advances in infrastructure will mean more energy is needed, so rapid measures need to be taken to reduce energy consumption or shift to renewable energy. We will draw on our wide range of solutions to provide customers with a total package that can minimize energy consumption and $\rm CO_2$ emissions in the age of high-speed, high-volume communication. In the mobility field, the shift to EVs and increase in data volumes being transferred by onboard systems will lead to increasing adoption of optical interconnection for onboard communication. As the communications field becomes interconnected with energy and mobility, it goes without saying that our infocommunications technologies and knowledge will be an asset.

* Extended/cross reality. This technology uses virtual reality, augmented reality, mixed reality and substitutional reality to combine elements of physical and virtual environments.

Contributing to a better way of life

When we think about how people will live and what their needs will be in future, there will likely be a greater desire than ever for ways to accurately communicate and share information and emotions across physical distances. And with the increase in virtual spaces where people can do this remotely without physically moving, there will be a call for greater realism. Advances in communication methods may lead to the development of more technology that gives elderly people and people with disabilities greater autonomy. We will probably see innovation not only in interfaces such as displays but in communication itself: for example, if devices are connected to the brain in a minimally invasive or noninvasive way, we could be able to accurately convey what we're thinking, without the limitations of audio, language and image transfer, which can cause misunderstandings. As future changes unfold, we will be well poised to make use of the infocommunications knowledge we have gained by helping to build today's high-speed, highcapacity technology, along with our technology in fields such as electronics that are already being widely used in people's daily lives. We have always excelled at working together with our customers to create and supply the infrastructure and devices that society is looking for, and we will continue to take this approach in future. Our mission as an enabler company is not done—there are still many more ways for us to contribute to a better tomorrow

Contribution to new virtual experiences that feel more real



- Electronic wire products used for XR glass
- The infocommunications infrastructure behind XR





- Small diameter, flexible, high-speed data transmission cables
- Optical communications products for infocommunications networks

3 Contribution to satellite communications



- Compound semiconductors for satellites and ground stations
- Optical communications products for infocommunications networks

4 Contribution to reduction of CO₂ emissions.



 Optical communications products for infocommunications networks

