Mitsubishi Materials DNA of Transformation

From the past & into the future. Mitsubishi Materials will achieve "Transformation for Growth" by meeting social needs that change with the times.

The Mitsubishi Group was born when Tsukumo Shokai, the forerunner of Mitsubishi Materials Corporation, entered the coal and metal mining business.

For nearly 150 years, the Company has supported Japan's rapid development as it has grown by diversifying its operations and reforming its business structures to meet social needs that changed with the times.

We will continue our tradition of creating new raw materials, products and solutions, and contribute to the sustainable

In Step with Modern Japan Coals and metals businesses advance Business diversified with postwar rebuilding

In the possession of Mitsubishi Archives

1893 Shokai

Tsukumo Shokai established Coal mine leased from the Shingu clan in Kishu.

1873

Name changed to

Mitsubishi Šhokai;

Yoshioka Mine acquired.

1871

Mitsuhishi Goshi Kaisha established

1896

1917

Metal refining

business initiated.

Mining Research Institute

and Naoshima Smelter &

Refinery established

1918

Company Ltd.,

Mitsubishi Mining

1920

1942

(current Central Research Institute) Tokyo Metals Plant established;

Kanda Plant (current

Kyushu Plant) established.

Cement production initiated.

cutting tools business initiated.

Breakup of coal and metal divisions with

dissolution of business conglomerates

Taihei Mining Co., Ltd. name changed to

Mitsubishi Metal Mining Company Ltd.

Mitsubishi Cement Corp.

Mitsubishi Metal Corporation

established. 1959

1954

Production of high-purity silicon for semiconductors initiated.

1962

Mitsubishi Reynolds Aluminum Co., Ltd. (current Mitsubishi Aluminum Co., Ltd.) established.

1972

Fujioyama Plant (aluminum beverage can business) established.

1976

Mitsubishi Metal Mining Company Ltd. name changed to

> Onuma Geothermal Plant begins operation.

Mitsubishi Mining Company Ltd., Mitsubishi Cement Corp.

and Hokoku Cement Corp. merge into

Mitsubishi Mining & Cement Co., Ltd.

1976

Production and sales of ceramic electronic components begun.

1988

Mitsubishi Cement Corp. established in the United States

1989

Sanda Plant established

1990

Sakai Plant established.

Naoshima Smelter & Refinery When the site was established



Tokvo Metals Plant Circa 1950



Kurosaki Plant (current the Kurosaki Production Section, Kyushu Plant) 1955



Onuma Geothermal Plant

The four strengths of

Mitsubishi Materials Corporation cultivated of 150 years of history



Value chain from raw materials to

products with

a stable supply

▶ Birth and Growth of Mitsubishi Materials

Merger of Mitsubishi Metal Corporation and Mitsubishi Mining & Cement Co., Ltd. Birth of Mitsubishi Materials Corporation

Mitsubishi Materials founded.

1990 Corporation

1991 Tsukuba Plant established.

1995

MMC Tools (Thailand) Co., Ltd. established.

1996

PT. Smelting (Indonesia) Gresik Smelter and Refinery established, marking the Company's entry into the copper

1998

Ube-Mitsubishi Cement Corp. established.

1999

Business of home appliance recycling commenced.

2012

Robertson's Ready Mix, Ltd. (USA) made a wholly-owned subsidiary.

2014

MMC Electronics Lao Co., Ltd. established.

2015

Hitachi Tool Engineering, Ltd. made a consolidated subsidiary and name changed to Mitsubishi Hitachi Tool Engineering, Ltd.

2016

Second E-Scrap Center completed at Naoshima Smelter & Refinery. E-Scrap receiving and processing expanded to achieve the leading share of the world market.

2016

MM Metal Recycling B.V. established in the Netherlands; collection of E-Scrap from the European region expanded.

2017

Luvata Special Products Division acquired, expanding the copper & copper alloy products business.

2017

TianJin LingYun Tool Design Co., LTD. support provided for cutting work.

2017

Kitakyushu Ash Recycle Systems Co., Ltd. established.

2018

New Energy Fujimino Co., Ltd. established.

2019

Yuzawa Geothermal Power Generation Corporation's Wasabizawa Geothermal Power Station commenced commercial

2019

Became a Company with a Nomination

Merged with Mitsubishi Shindoh Co., Ltd., and established Wakamatsu Plant and Sambo Plant.

2020

Made Mitsubishi Hitachi Tool Engineering, Ltd. a wholly owned subsidiary and changed name to MOLDINO Tool Engineering, Ltd.







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Strengths of Mitsubishi Materials Corporation

Mitsubishi Materials Corporation inherits DNA cultivated over 150 years to contribute to the future of a recycling-oriented society via its strengths of advanced technology development and manufacturing technologies, as well as human resources that support the infrastructure of society.

As a diversified materials manufacturer, Mitsubishi Materials Corporation has created new materials to meet the diverse needs of the times and society, and has contributed to the foundation of all kinds of industries.

In order to build the recycling-oriented society to come, we will continue to take on the challenge of creating new social value through further technological innovations.

Advanced recycling technology and business platform

With long years of experience in the metals and cement business and environment recycling business, the Company enables the expansion of advanced recycling business through diverse and advanced recycling technologies, a wide range of business experience, and a unique waste collection network/business foundation.

Value chain from raw materials to products with a stable supply

The Company has established a consistent manufacturing system that covers everything from the stable procurement of raw material resources to product manufacturing, and provides a stable supply of good quality products to the market. This strength is the foundation that enables the Company to provide essential fundamental materials to support industries all over the world.





Copper Mountain Mine (Canada)

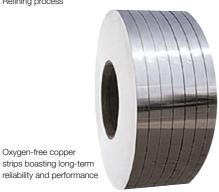


Refining process



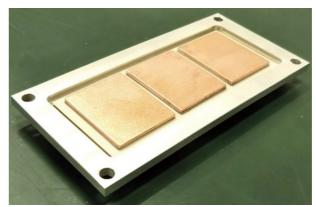
Automatic picking robots at our home appliance recycling plant





Unique material development and manufacturing technology

n addition to oxygen-free copper, copper alloys (copper and copper alloy), and the joining of dissimilar materials (electronic materials & components), the Company possesses advanced technologies such as cemented carbide materials and coating (metalworking solutions) to respond to a rapidly changing market. These are the source of our competitiveness, with material development and manufacturing technology based on atomic level analysis and simulation technology.



High performance insulated substrates for power modules (DBAC substrates)



New MV1020 material adopting newly-developed Al-rich coating technology

A team that can unite to resolve issues

The Company promotes the utilization of diverse human resources, including women, the elderly, disabled persons, and foreigners, respects individuality, diverse values, and sincerity, and brings together the power of these individuals to solve all kinds of problems.



female employees



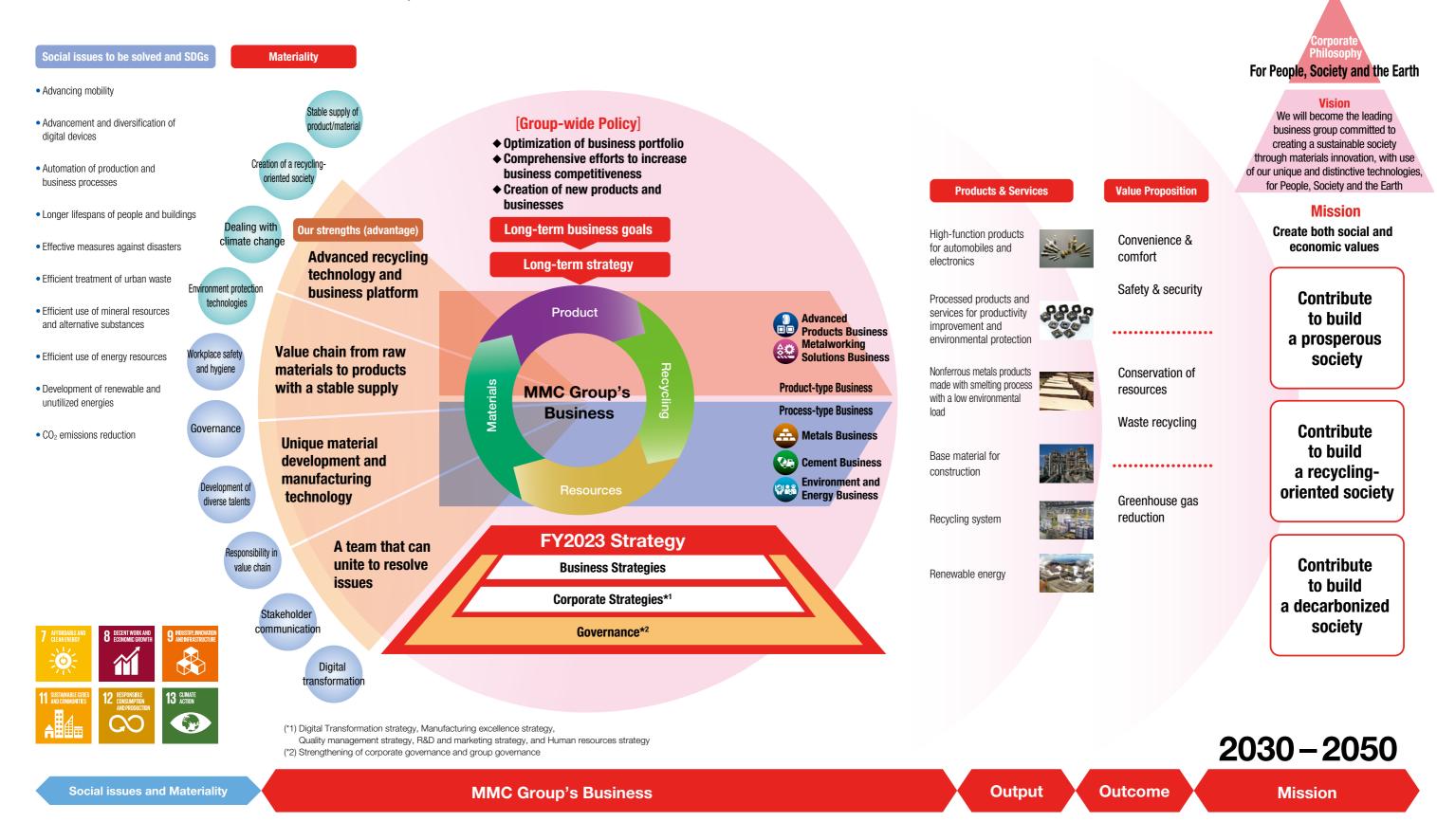
Aiming for workplaces where each and every one of us can



Training based on problem solving

Value Creation Process

The idea at the foundation of value creation at Mitsubishi Materials Group is "Create both social and economic values." As we aim to achieve our vision, we strive to solve social issues and thereby create economic value.



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Identifying and Tackling Materiality

The Group formulated a New Medium-term Management Strategy by updating the materiality (material issues) for the Group based on the CSR materiality established in 2015. The Group also integrated materiality into management strategy to which we offer solutions via business activities, and strengthened their relevance to the management strategy. These initiatives to address materiality also contribute to achieving Sustainable Development Goals (SDGs), and will enable the Group to improve its corporate value by achieving

The Group has formulated long-term business goals and a long-term strategy for achieving its Mission, based on materiality that have been identified. The Group plans to address the risks and opportunities presented by these materiality via corporate strategy, ss strategies, and CSR plan, in the term Managen

Selection Process

- 1. We reviewed some of elements of issues identified from the challenges found in GRI indicators, OECD guidelines, and SRI/ESG questions, etc. in 2015, based on the latest social trends and the medium to long-term growth of the Group
- 2. The Group compares these elements with the Mission and evaluates their importance for the Group and its stakeholders, including investors, suppliers, employees, and the local community
- 3. Based on the result of these evaluations, the Group identifies materiality for the Group, and sets items deemed to have a "Very high" importance for the Group and its major stakeholders as "Materiality regarding the resolution of social issues via business" in a management strategy. Other materiality are also set as "Materiality regarding the strengthening of the business foundation"
- 4. To solve "Materiality regarding the resolution of social issues via business" and "Materiality regarding the strengthening of the business foundation," the Group formulates a Long-term Strategy and Mediumterm Management Strategy

	able the Group to improve ocial value and economic	The state of the s	iness s dium-te				
	Materiality	Key Themes					
ess	Stable supply of product/ material [SCQDE]	Providing nonferrous metal materials, predominantly copper					
via busin		Providing high value-added functional materials and products					
l issues	Creation of a recycling- oriented society [SCQDE]	Providing recyclable products					
of socia		Advanced technology-based waste recycling					
Materiality regarding the resolution of social issues via business	Dealing with climate change [SCQDE]	Developing and promoting the use of renewable energies such as geothermal energy					
		Ensuring that we consider the reduction of environmental impact in manufacturing					
regardi	Environment protection technologies [SCQDE]	Preventing environmental pollution					
teriality		Preserving biodiversity					
Ma		Developing environmental technologies and products	8				
a)	Workplace safety and hygiene [SCQDE]	Preventing occupational accidents					
nd con		Creating mentally and physically pleasant workplaces					
management base and core	Governance [SCQDE]	Reinforcing compliance					
agem	Development of diverse talents	Human resource development					
man		Diversity (empowerment of women)					
of th	Responsibility in value chain [SCQDE]	Respect for human rights in procurement					
ening		Product quality					
strengt	Stakeholder communication	Building and strengthening relationships with stakeholders					
Materiality regarding the strengthening o		Improving customer satisfaction					
		Engaging in dialog and coexisting with local communities					
	Digital transformation	Business standardization					
		Operational enhancement					
		Creation of new added-value					

agement Strategy. High Importance to			Importance to management Very high					Mission			
				Long-term business goals Long-term strategy	E (environment)	ESG/SDGs ES	S (society)	Contribute to build a prosperous society	Contribute to build a recycling-oriented society	Contribute to build a decarbonized society	
		Advanced Products Business p.18	Risks Severing of the supply chain due to natural disasters, etc. Stuck in follower position Emergence of game changers Opportunities Develop and supply products that contribute to decarbonization	Global-First Supplier Create new businesses and products through the sophistication and integration of our core competencies (e.g. production and development of oxygen-free copper, oxygen-free copper base alloys, and functional materials as well as technical capabilities such as bonding different metals, etc.) Accelerate marketing activities to replicate successful practices	7 STANDARD TO STAN	9 NOTIFICATION NOTIFICATION 12 EDWART NOTIFICATION 12 EDWART NOTIFICATION NOTIFICAT		Advance and diversifying mobility and digital devices Automate production and business processes	Develop and use materials with low environmental impact Efficiently use mineral resources and alternative resources	Efficiently use energy resources Reduce CO ₂ emissions Develop and supply products that contribute to decarbonization	
		Metalworking Solutions Business p.22	Risks • Supply chain changes in the automotive industry • Decreased internal combustion engines due to mobility revolution • Rising raw material prices • Changes to the market structure due to COVID-19 Opportunities • Processed materials becoming difficult-to-cut • Increased new demand due to automobile electrification • Demand for recycling • Evolution of digital technologies	Top 3 supplier in strategic markets • Promote clean manufacturing • Provide high-efficiency products with advanced technology • Expand advanced metal powder business in electronic devices	7 (11) (11) (11) (11) (11) (11) (11) (11	9 sector annulus sector annulus sector annulus 12 cocumination sector annulus sec		Provide high-efficiency products and digital solutions	Promote the use of recycled cemented carbide materials	Promote manufacturing renewable energy Expand electrification business by advanced metal powder technology	
	Business Strategies	Metals Business p.26	Risks Risks for copper concentrate procurement due to resource nationalism in resource-rich countries Intensifying competition following the growth of Chinese smelting and refining manufacturers Operational problems attributed to increasing input of minor elements in the smelting and refining process Stricter regulations on environmental concerns in smelting and refining operations or environmental concerns in smelting and refining operations Presence of a powerful competitor in the precious metal retail market Opportunities Potential for developing technologies for removing impurities from copper concentrate Enhancing recovery of minor elements that are input and use of these in products. Transition to a recycling-oriented and decarbonized society Worldwide expansion of the E-Scrap supply market with growing environmental awareness Increase in demand for gold as a safe asset	Leader in environmentally-friendly mining & smelting business Stable supply and recycling of nonferrous metal materials, predominantly copper Creation of a sustainable raw material portfolio consisting of clean copper concentrate and E-Scrap Promotion of recycling Response to climate change	13 dets	9 men hende men services 22 somethin men services	11 PERSONAL PROPERTY AND ADDRESS OF THE PERSONAL	Provide copper-based materials for advanced products	Provide recyclable products Recycle waste	 Promote the development and use of CO₂ reduction technologies Achieve manufacturing that considers environmental load 	
		Cement Business p.30	Risks CO ₂ emission regulations and securing of coal ash alternatives Resource depletion Decreasing domestic demand for cement Labor shortages Rising heat energy prices Opportunities Restrictions on landfill of waste and handling of waste that is difficult to process Increased demand for cement in emerging countries and environmentally advanced countries (exports) Demand for advanced products Demand for advanced products Building national resilience, such as constructing embankments Low-temperature burning technology	Leader in the domestic and international cement industry with advanced environmental technologies • Stable supply of basic building materials for social infrastructure and disaster prevention infrastructure • Sophistication of waste disposal • Response to climate change by reducing CO ₂ • Construction of a resilient domestic business foundation through business restructuring and business growth in overseas markets	13 miles.	9 REPRESENTATION OF THE PROPERTY OF THE PROPER	11 sections (12)	Create safe, secure, and functional cities	Recycle waste Promote sustainable resource recycling	Reduce CO ₂ emissions by improving manufacturing processes	
		Environment and Energy Business p.34	Risks Rival company trends/participation Manufacturer restructuring Local government emission trends Changes to national policy and revisions to laws Changes to national policy and revisions to laws Local opposition from hot spring operators, etc. Consensus-building with stakeholders Opportunities Depletion of mineral resources, increased demand for recycled resources Depletion of energy resources, securing energy in Japan Climate change (global warming), reduction of CO ₂ , emissions and increased demand for renewable energy	(Environmental recycling) Driving force of resource-recycling systems (Renewable energy) Leading company in geothermal development Provision of a safe recycling system with thorough traceability, etc. Decarbonization by expanding renewable energy business	13 desi	9 NOTES MANAGEMENT OF STREET OF STRE	11 SECTIONAL COSTS	Ensure a stable supply of clean energy and recycled products	Solve urban waste problems Build a sustainable social system	Provide renewable energy	
	Corp	porate Strategies		R&D and Marketing Strategy P.39 Workplace Safety and Hygiene P.45 Abandoned Mines P.53 Manufacturing Excellence Strategy P.40 Ouality Management Strategy P.41 P.41 Risk Management P.45 Name of the formation (DX) Strategy P.42 P.44 Risk Management P.45 Name of the formation Security P.45 Stakeholder Communication P.55 Name of the formation Security Name of the formation Security P.55 Name of the formation Security Name of the formation Securit							
Governance				Directors and Executive Officers							