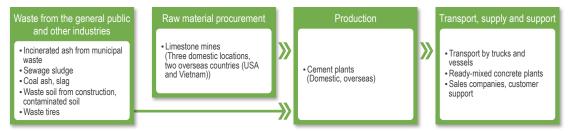
## **Businesses and Value Chains**

### **Cement Business**

Cement is an essential basic material to our modern society, not least for the construction of roads, bridges, ports and buildings. We contribute to the development of social infrastructure through our cement business, and have established a wide-ranging business structure, from mining

limestone, the main raw material in cement, through to cement plants, transportation, sales, ready-mixed concrete plants, and construction companies. In addition to our four domestic facilities, spearheaded by our Kyushu Plant, we also undertake global activities via production and sales facilities in countries such as the US and Vietnam, where there is strong demand. We supply high quality products such as low-heat cement, ultra-high strength concrete cement, and non-shrink grout, in addition to regular Portland cement and other general-purpose products. Furthermore, we actively take in difficult-to-treat waste products at our cement plants, and detoxify them using a high-temperature burning process at 1,450°C. Effectively reusing resources like this enables us to contribute to the establishment of a recycling-oriented society.

■ Value chain for the cement business



## **Metals Business**

Our metals business consists of four areas of business; mining, smelting and refining, copper processing and precious metals. In the mining sector, we invest in overseas copper mines in order to procure a steady supply of copper concentrate. In the smelting and refining sector, we

manufacture and sell high quality products, both domestically and overseas, thanks to the Mitsubishi Process, which combines high efficiency with exceptionally low environmental impact. Making the most of the smelting process, we have also established a recycling system for recovering valuable metals from E-Scrap, as part of our active commitment to recycling resources. In the copper processing sector, we supply automotive parts, electrical wires, copper tubes, oxygen-free copper, and special copper alloys on a global scale. In the precious metals sector, we provide precious metal bullion products and services under the brand "Mitsubishi Gold," including our accumulation plan service called "MY GOLD PARTNER" for gold, silver and platinum for individual customers.

#### ■ Value chain for the metals business



## Advanced Materials & Tools Business

In addition to cutting tools that are essential for processing metal parts, we supply advanced materials and tools including rock tools, wear resistant tools, and other cemented carbide products, as well as sintered parts used for purposes such as engines and drive parts for vehicles and aircraft. We operate manufacturing and sales facilities worldwide, in China and other parts of Asia, the

Americas and Europe. We provide high added value products and services in line with customers' needs, underpinned by high levels of technical expertise and reliability. We also boast a leading share of the domestic cemented carbide product market, supporting manufacturing across a range of different fields. The sintered parts sector contributes to improve fuel efficiency for eco-friendly automobile and promote electrification. We also actively recycle tungsten, the rare metal that provides the main raw material for cemented carbide, and are focusing a great deal of effort on collecting using cemented carbide tools.

### ■ Value chain in the advanced materials & tools business

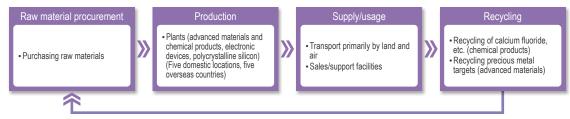


## Electronic Materials & Components Business

As part of our electronic materials and components business, we supply products in four sectors; advanced materials, chemical products, electronic devices, and silicon. In the advanced materials sector, we manufacture sputtering targets for use in displays for smartphones and LCD televisions, high reliability insulating substrates (DBA) that offer excellent radiation properties for items

such as hybrid vehicles, and low-alpha solders, an area in which we boast a world-leading share of the market. In the chemical products sector, we supply items such as solar heat-ray shielding paints for windows, and organic fluorine products. In the electronic devices sector, we contribute to energy-saving through supplying products such as thermistors, surge absorbers, and other electronic components which are used in vehicles and home appliances. Products we supply in the silicon sector include polycrystalline silicon for semiconductors and chlorosilane gas that play a crucial part in our advanced IT society.

### ■ Value chain in the electronic materials & components business



## **Aluminum Business**

In the aluminum sector, we have group companies that manufacture and sell aluminum rolled and processed products, as well as aluminum beverage cans, As part of our rolling operations, we operate a global extrusion business via manufacturing facilities in four other countries. We also

have Japan's only self-contained recycling system for used beverage cans, and are always doing our bit to help create a recycling-oriented society.

#### ■ Value chain in the aluminum business



# Environment & Energy Business

In the energy sector, we contribute to the creation of a recycling-oriented society by providing stable supplies of renewable energy, including geothermal, hydroelectric and solar power. In the nuclear sector, our operations include treatment and disposal of radioactive waste, safety assessments and environmental restoration in Fukushima. In the coal sector meanwhile, we sell coal

mined from countries such as Australia and Indonesia.

In the eco-recycling sector, we operate recycling plants that we have established together with home appliance manufacturers, while working collaboratively within the group to expand resource recycling, not least through our smelting and cement recycling system.

## Affiliated Business

We operate a wide range of affiliated businesses via our highly distinctive group companies. In addition to the likes of engineering and trading companies, other businesses include pure gold cards made using gold extracted from the copper smelting process, and our high quality jewelry

brand MJC, domestic coal mine. We also operate tourist mines by making use of former mining sites, manufacture salt, run golf courses, and even operate driving schools, designed to revitalize local communities. We make the most of our advanced technologies to play a key role in the ground source heat sector too.