

## History of Environmental Activities

Year	Development of products and technologies	Management and production operations, etc.
1966	<ul style="list-style-type: none"> <li>● R&amp;D on electric vehicles conducted in association with Tokyo Electric Power</li> </ul>	
1969	<ul style="list-style-type: none"> <li>● Gas turbine R&amp;D begins</li> </ul>	
1970		© Mitsubishi Motors spun off from Mitsubishi Heavy Industries
1971	<ul style="list-style-type: none"> <li>● Limited production of light commercial electric vehicles</li> <li>● Involvement in R&amp;D on electric city buses, electric buses delivered to Kyoto and Kobe transportation bureaus</li> </ul>	
1972	<ul style="list-style-type: none"> <li>● Announcement of low-emission MCA engine</li> </ul>	
1977	<ul style="list-style-type: none"> <li>● Announcement of low-emission, high-efficiency MCA-JET engine</li> </ul>	
1979	<ul style="list-style-type: none"> <li>● R&amp;D on methanol-powered car begins</li> <li>● Development of prototype gas-turbine truck</li> </ul>	
1980	<ul style="list-style-type: none"> <li>● MCA-JET engine wins the Japan Society of Mechanical Engineers' (JSME) prize for technology</li> </ul>	
1982	<ul style="list-style-type: none"> <li>● High-fuel efficiency Orion 1400MD engine announced</li> </ul>	
1986	<ul style="list-style-type: none"> <li>● Cyclone engine offering high combustion efficiency announced</li> </ul>	
1987		<ul style="list-style-type: none"> <li>● MMC wins the Minister of International Trade and Industry's award for tree planting at its Shiga Plant</li> </ul>
1988	<ul style="list-style-type: none"> <li>● Announcement of world's first pre-stroke control fuel injection pump to reduce NOx emissions from diesel engines</li> </ul>	
1989	<ul style="list-style-type: none"> <li>● Eterna Sigma methanol car road tests begin</li> </ul>	<ul style="list-style-type: none"> <li>● Project team established to examine global environmental issues</li> <li>● Diamond Star Motors (now Mitsubishi Motor Manufacturing of America) awarded the Prize for Outstanding Environmental Contribution by the U.S. Industrial Development Survey Association</li> <li>● Okazaki Plant awarded a special award by Aichi Prefecture for its greenification activities</li> </ul>
1990	<ul style="list-style-type: none"> <li>● Long-term tests of Gallant FFV (methanol car) conducted by Californian Energy Commission</li> <li>● Pre-stroke control fuel injection pump wins JSME's prize for technology</li> <li>● MMC participates in Japanese Ministry of International Trade and Industry's (MITI) Auto Ceramic Gas Turbine Project</li> </ul>	
1991	<ul style="list-style-type: none"> <li>● Announcement of MVV engine</li> <li>● Joint development of Lancer electric car with Tokyo Electric Power</li> </ul>	<ul style="list-style-type: none"> <li>● Plastic parts weighing at least 100g marked with identifying code</li> </ul>
1992	<ul style="list-style-type: none"> <li>● MVV engine wins Society of Automotive Engineers of Japan (JSAE)'s Technological Development Award</li> <li>● Announcement of MIVEC engine combining high fuel efficiency and high output</li> <li>● Start of research into reducing particulate emissions from diesel trucks</li> <li>● Awarded Japan Gas Turbine Society's prize for technology for development of ceramic turbine rotor</li> </ul>	<ul style="list-style-type: none"> <li>● Introduction of cogeneration system at Oye Plant</li> <li>● Mizushima Plant commended for contribution to the environment by Okayama Prefecture</li> </ul>
1993	<ul style="list-style-type: none"> <li>● Joint development of Libero electric vehicle with Tokyo Electric Power, delivery of 30 vehicles to Tokyo Electric Power and Tokyo government</li> <li>● Light hybrid passenger car (ESR) exhibited at the 30th Tokyo Motor Show</li> <li>● Start of road tests of methanol-powered Canter</li> </ul>	<ul style="list-style-type: none"> <li>● MMC Environmental Plan formulated and Basic Philosophy on the Environment established</li> <li>● MMC Environmental Council established</li> </ul>
1994	<ul style="list-style-type: none"> <li>● Libero electric vehicle goes on general sale</li> <li>● Start of model business for introduction of Gallant methanol-powered vehicle</li> <li>● Sales of buses fitted with hydraulic hybrid systems (MBECS) start</li> <li>● Start of trial sale of methanol-powered Gallant</li> <li>● Development of Canter natural gas vehicle</li> <li>● Elimination of CFC-12 refrigerant from air conditioners in all new models and switch to HFC-134a for all vehicles</li> <li>● Launch of moves to reduce use of lead in new models</li> <li>● Introduction of technology to strip paint from plastic parts in order to better greater recycling</li> </ul>	<ul style="list-style-type: none"> <li>● Fluorocarbons entirely eliminated from production processes</li> </ul>

## Appendix

Year	Development of products and technologies	Management and production operations, etc.
1995	<ul style="list-style-type: none"> <li>● Development and announcement of world's first high-fuel efficiency, high-output gasoline direct injection (GDI) engine</li> <li>● Development of Mitsubishi HEV, tested by California Air Resource Board</li> <li>● Diamante fitted with preview distance control</li> <li>● Announcement of MBECS-III (first diesel car to pass the 1999 exhaust controls)</li> <li>● Canter HEV developed and exhibited at 31st Tokyo Motor Show</li> <li>● Road tests start on city bus fitted with DPF system</li> </ul>	<ul style="list-style-type: none"> <li>● Shiga Plant awarded the Prime Minister's environmental contribution award for its contribution to tree-planting campaigns</li> <li>● Elimination of 1,1,1-trichloroethene from all production processes</li> </ul>
1996	<ul style="list-style-type: none"> <li>● Announcement of vehicles powered by GDI engines (Gallant, Legnum)</li> <li>● GDI engine awarded the Minister of International Trade and Industry's award by the Energy Conservation Center</li> <li>● Introduction of VICS-compatible MMCS for some models</li> <li>● Development of mechanical AT "INOMAT"</li> <li>● MBECS-III offering improved high efficiency goes on sale</li> <li>● First ever common-rail fuel injection system adopted for mass-produced tractor engine</li> <li>● LPG Canter goes on sale</li> <li>● DPF system for city buses enters commercial use, 30 vehicles delivered to Yokohama</li> </ul>	<ul style="list-style-type: none"> <li>● MMC Environmental Plan revised</li> <li>● Recycling Committee established in the MMC Environmental Council</li> </ul>
1997	<ul style="list-style-type: none"> <li>● GDI engine wins JSME's prize and JSAE's Technological Development Award</li> <li>● MMC awarded the 1997 Environmental Contribution Award for the Prevention of Global Warming for developing and encouraging the wider use of GDI engines</li> <li>● CNG Canter goes on sale</li> <li>● Joint development of low-cost, high-performance lithium-ion battery with Japan Storage Battery</li> <li>● Approximately 20% reduction in use of HFC-134a refrigerant in air conditioners for the Chariot Grandis</li> <li>● World-beating thermal efficiency achieved in MITI Auto Ceramic Gas Turbine Project</li> </ul>	<ul style="list-style-type: none"> <li>● Launch of collection and recycling of old bumpers replaced by dealers</li> <li>● Introduction of cogeneration system at Kyoto Plant</li> <li>● Okazaki Plant and Kawasaki Plant take part in Environmental Agency's PRTR Pilot Project</li> <li>● All eight plants take part in voluntary PRTR trials organized by Keidanren</li> <li>● Publication begins of "Plant Environmental Topics" for distribution to suppliers, etc.</li> <li>● Environmental Liaison Council established to liaise between main affiliates and members of the MMC Group</li> </ul>
1998	<ul style="list-style-type: none"> <li>● MVV engine fitted as standard in all minicars built under the new minicar standards</li> <li>● Low-emission Gallant, Legnum and Aspire go on sale</li> <li>● Development of parts made from waste paper and use in new Pajero IO model</li> <li>● CNG Aerostar goes on sale</li> <li>● Development of easy-to-recycle TEO weather strip suitable for all vehicles</li> </ul>	<ul style="list-style-type: none"> <li>● Announcement of MMC's voluntary ELV Recycling Action Plan</li> <li>● Completion of nationwide system for collection and destruction of CFC-12 refrigerant used in air conditioners</li> <li>● Nagoya, Kyoto and Mizushima Plants acquire ISO14001 certification</li> <li>● Abolition of use of tetrachloroethene and dichloromethane chlorine cleaning agents</li> </ul>
1999	<ul style="list-style-type: none"> <li>● Development of GDI Sigma series</li> <li>● New Pajero model fitted with direct injection diesel passenger car engine</li> <li>● Development of Pistachio GDI-ASG vehicle</li> <li>● Establishment of project team to investigate ways of reducing vehicle weight</li> </ul>	<ul style="list-style-type: none"> <li>● Replacement of Basic Philosophy on the Environment by new MMC Environmental Guidelines</li> <li>● Establishment of Environmental Affairs Department (Environmental Technology Department from April 2000)</li> <li>● Publication of first MMC Environmental Report</li> <li>● Tokyo Plant acquires ISO14001 certification (all domestic works now ISO14001 compliant)</li> </ul>
2000	<ul style="list-style-type: none"> <li>● New Lancer Sedia fitted with GDI-CVT</li> <li>● Pajero IO fitted with GDI turbo</li> <li>● Hybrid electric drive system for large buses developed, and exhibited at Tokyo Motor Show</li> </ul>	<ul style="list-style-type: none"> <li>● Launch of Green Procurement (suppliers requested to cooperate in environmental activities)</li> <li>● Development environmental management systems for dealers</li> </ul>
2001	<ul style="list-style-type: none"> <li>● Development of air-cleaner case made from recycled polypropylene and waste paper</li> <li>● Development and use for Dion of naturally colored resin door trim</li> <li>● Public test drive round Shikoku by Eclipse EV prototype</li> <li>● Unveiling of GDI-ISA at Frankfurt Short</li> <li>● Total production of GDI engines passes million mark</li> </ul>	<ul style="list-style-type: none"> <li>● Emissions of waste for landfill disposal eliminated at the Nagoya and Kyoto Plants</li> </ul>
2002 (to June)	<ul style="list-style-type: none"> <li>● GDI engine catalytic control system wins Energy Conservation Center Chairman's Award</li> <li>● Model powered by new LPG engine added to Canter series</li> <li>● New MIQCS combustion system wins JSAE's Technology Development Award</li> <li>● Research to reduce noise from tires during motion wins JSAE's Asahara Award for the Promotion of Science</li> <li>● Aero Star non-step HEV used as a shuttle bus to the Shizuoka Stadium during the soccer World Cup</li> </ul>	<ul style="list-style-type: none"> <li>● Establishment of Recycling Promotion Office</li> <li>● Zero landfill waste target achieved by all plants</li> <li>● MMC Environmental Sustainability Plan (medium-term action plan) announced</li> </ul>

## Main business establishments and affiliates

June, 2002

■ Business establishments		Address	Telephone
Head office		5-33-8, Shiba, Minato-ku, Tokyo 108-8410, Japan	(03)3456-1111
Car Research & Development Office		1, Nakashinkiri, Hashime-cho, Okazaki, Aichi 444-8501, Japan	(0564)31-3100
Tokachi Proving Ground		9-3 Otofuke-cho, Kato-gun, Hokkaido 080-0271, Japan	(0155)32-7111
Tama Design Center		1-16-1, Karakida, Tama, Tokyo 206-0035, Japan	(0423)89-7307
Truck & Bus Research & Development Office		10, Okura-cho, Nakahara-ku, Kawasaki, Kanagawa 211-8522, Japan	(044)588-1111
Kitsuregawa Proving Ground		4300, Washijuku, Kitsuregawa-cho, Shioya-gun, Tochigi 329-1411 Japan	(0286)86-4711
Nagoya Plant	Oye	2, Oye-cho, Minato-ku, Nagoya, Aichi 455-8501 Japan	(052)611-9100
	Okazaki	1, Nakashinkiri, Hashime-cho, Okazaki, Aichi 444-8501 Japan	(0564)31-3100
Kyoto Plant	Kyoto	1, Uzumasa, Tatsumi-cho, Ukyo-ku, Kyoto 616-8501 Japan	(075)864-8000
	Shiga	2-1, Kosunamachi, Kosei-cho, Koga-gun, Shiga 520-3212, Japan	(0748)75-3131
Mizushima Plant		1-1, Mizushima Kaigandori, Kurashiki, Okayama 712-8501, Japan	(086)444-4114
Main Truck and Bus Production Plant	Kawasaki	10, Okura-cho, Nakahara-ku, Kawasaki, Kanagawa 211-8522, Japan	(044)587-2000
	Nakatsu	4001, Nakatsu Aza Sakuradai, Aikawa-cho, Aiko-gun, Kanagawa 243-0303, Japan	(0462)86-8111

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■ Main affiliates	Location	Line of business	Ownership	Capital
Mitsubishi Automotive Engineering Co., Ltd.	Kawasaki City, Kanagawa	Development and design of vehicles and parts	100%	¥450m
MMC Computer Research., Ltd.	Okazaki City, Aichi	Computer development related work	100%	¥30m
MMC IT Solution Co., Ltd.	Minato-ku, Tokyo	Computer systems development and software design and development	100%	¥100m
Mitsubishi Automotive Techno-Metal Corporation	Nihonmatsu City, Fukushima	Manufacture and machining of cast/forged products	100%	¥1,940m
Ryowa Sheet Metal Processing Co., Ltd.	Chiryu City, Aichi	Manufacture of sheet metal parts (doors, hoods, etc.)	100%	¥150m
Mizushima Industries Co., Ltd.	Kurashiki City, Okayama	Manufacture of light four-wheel drive special purpose vehicles and vehicle parts	43.75%	¥64m
Mitsubishi Motors Bus Manufacturing Co., Ltd.	Nei-gun, Toyama	Bus body mounting	100%	¥6,400m
Pabco Co., Ltd.	Ebina City, Kanagawa	Truck mounting (decks, van bodies, etc.)	100%	¥600m
Pajero Manufacturing Co., Ltd.	Kamo-gun, Gifu	Pajero production and manufacture of die-cast and sheet metal parts	66.59%	¥610m
Mitsubishi Motors Training Center Co., Ltd.	Okazaki City, Aichi	Center for car mechanic training and domestic and overseas repair and servicing skills training	100%	¥750m
Mitsubishi Automotive Techno-Service Co., Ltd.	Shinagawa-ku, Tokyo	Servicing of new passenger cars, diesel engine recycling	100%	¥400m
MMC Test and Drive Corporation	Okazaki City, Aichi	Test driving, measuring and servicing of test vehicles	100%	¥50m
Ralliart Inc.	Minato-ku, Tokyo	Participation in and support for motor sports	100%	¥54m
Mitsubishi Auto Credit-Lease Corporation	Minato-ku, Tokyo	Credit services, car rental, leasing	43.25%	¥960m
Mitsubishi Automotive Logistics Co., Ltd.	Minato-ku, Tokyo	Original contractor for transport of finished vehicles for domestic and export markets	75%	¥300m
MMC International Corporation	Minato-ku, Tokyo	Vehicle and parts export procedure agency and technical translation services	100%	¥40m
JIN, Inc.	Minato-ku, Tokyo	Education and training services relating to corporate personnel development	100%	¥11m
Mitsubishi Motor Manufacturing of America, Inc.(MMMA)	USA	Manufacture of vehicles	99.0%	US\$407.1m
Mitsubishi Motor Sales of America, Inc.(MMSA)	USA	Import and marketing of vehicles and related business	100%	US\$261.0m
Mitsubishi Fuso Truck of America, Inc.(MFTA)	USA	Import and marketing of trucks	100%	US\$10m
Mitsubishi Motors America, Inc.(MMA)	USA	Collection of vehicle information, etc	100%	US\$5.7m
Netherlands Car B. V. (Ned Car)	Netherlands	Manufacture of vehicles	85%	EUR 1,214m
Mitsubishi Motors Europe B. V. (MME)	Netherlands	Overall control of European facilities	100%	EUR 52m
Mitsubishi Trucks Europe (MTE)	Portugal	Import, assembly and marketing of commercial vehicles	99.66%	EUR 7.5m
Mitsubishi Motors Philippines Corp.(MMPC)	Philippines	Import, assembly and marketing of vehicles	51%	Pesos 1,640m
Asian Transmission Corporation (ATC)	Philippines	Assembly of engines and transmissions, etc. for vehicles	5.3% MMPC80%	Pesos 350m
MMC Sittipol Co., Ltd. (MSC)	Thailand	Manufacture, import and marketing of vehicles	99.91%	Baht 16,145m
Mitsubishi Motors Australia Ltd., (MMAL)	Australia	Manufacture, import and marketing of vehicles	100%	A\$279m