

History of Environmental Activities

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

Appendix

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

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