

## Synergizing Operations

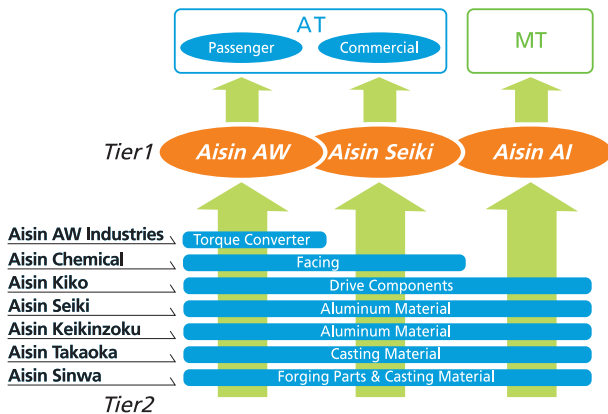
Aisin Seiki Co., Ltd. (Aisin Seiki) and 13 other subsidiaries, whose head offices are located in Japan, make up the group's core: those are 11 R&D and manufacturing companies including Aisin Takaoka Co., Ltd. (Aisin Takaoka), Aisin Chemical Co., Ltd. (Aisin Chemical) and Aisin AW Co., Ltd. (Aisin AW) and two other companies. The group's other subsidiary and affiliate companies create a larger cooperative network worldwide. The AISIN Group supports the initiative, creativity, and entrepreneurial spirit of every group company to nurture each company's unique strength. Meanwhile, the group companies work together to improve groupwide technology development and production capabilities, enhancing the synergies among them.

At the AISIN Group our operations can be furthermore categorized into six product areas (five areas are automotive

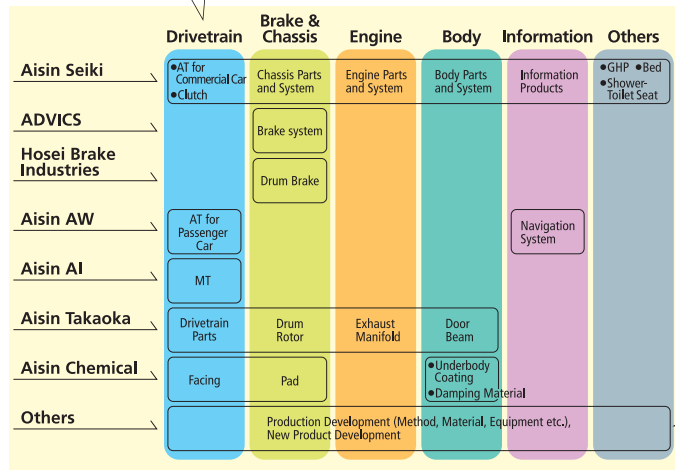
parts and systems business and the last area is life & energy related business and others): engine related products; drivetrain related products; brake & chassis related products; body related products; information related products; and life & energy related products and others. While Aisin Seiki oversees development and production in all these areas, the 13 other subsidiaries share the responsibility for developing products based on their particular expertise. Aisin AW specializes in the development of automatic transmissions (AT) for passenger cars and car navigation systems; Aisin AI Co., Ltd. excels in developing manual transmissions (MT); Aisin Takaoka is responsible for casting and forging components; Aisin Chemical develops plastic and paint products; ADVICS Co., Ltd. develops and markets brake systems; and Hosei Brake Industry Co., Ltd. manufactures brake components. The AISIN Group's R&D subsidiaries around the world conduct research into the most advanced technologies for automobiles and other industries. From R&D to production and marketing, the AISIN Group capitalizes on its wide network of companies and its synergies on a global scale, thereby empowering the group as a whole.

Those six product areas will be described in "Review of Operations" section, later.

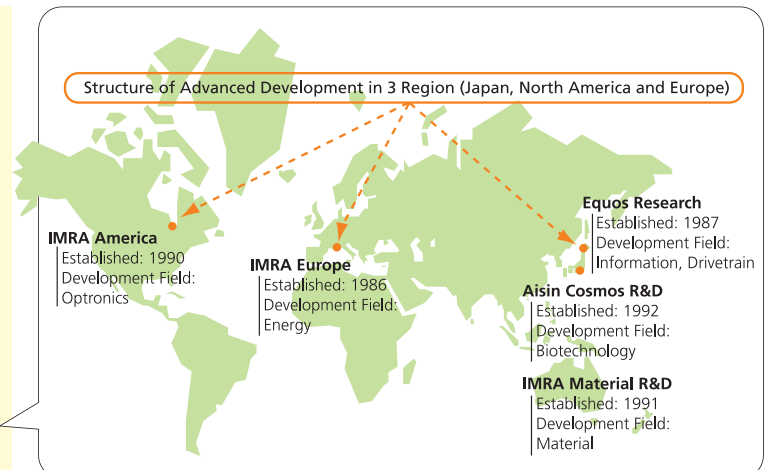
### Production Responsibilities of Transmissions



### Product Development Responsibilities



### Worldwide R&D Subsidiaries in Cutting-edge Realms



## World-Class Testing and Evaluation Facilities

The AISIN Group boasts the most sophisticated testing and evaluation facilities in the world for an automotive parts and systems supplier. Our management has had a strong commitment to developing in-house technologies, in which we design and develop products, test, and evaluate them, and feed back the results to the development section to ensure quality. At the time of foundation, we found that an automotive parts and systems supplier could not become independent without establishing the cycle from development to production within the group at an early stage. Aisin Seiki built the Fujioka Proving Ground in Aichi in 1970 and in 1992 the Toyokoro Proving Ground in Hokkaido for testing and evaluating in cold district.

It is essential to secure the reliability after installing the actual parts and systems in cars and setting the environmental condition as well as conducting bench tests for individual parts in order to satisfy our customers. Parts, components and systems must be installed in a car to evaluate performance.

To meet the expectations of customers around the world and ensure quality, we conduct regular tests and evaluation in virtual environments that simulate a comprehensive sampling

of extreme hot and cold temperatures and road surface conditions. Our extensive evaluation process uses a variety of evaluation equipment and devices to ensure the safety, comfort and minimal environmental impact of our products. Furthermore, we will actually travel to foreign countries with extremely hot and cold environments to perform our tests.



Toyokoro Proving Ground (Hokkaido)  
Land area: 7,480,000m<sup>2</sup>  
High-speed track: 2.2km/lap  
Rough road track: 11.5km/lap



Braking test on a frozen road.



Various vehicle components are evaluated in a hot-weather chamber of temperatures up to 50°C.



Function and performance of vehicle components are tested in a cold-weather chamber of temperatures down to -50°C.



Fujioka Proving Ground (Aichi)  
Land area: 670,000m<sup>2</sup>  
High-speed track: 2.4km/lap  
Rough road track: 4.6km/lap



Effects of electromagnetic waves upon electronic devices are evaluated in an anechoic chamber.



Vehicle stability control system is evaluated on a low-friction  $\mu$  surface road.

## Overseas Network

The globalization of the AISIN Group began when Aisin Seiki Co., Ltd. (Aisin Seiki) opened a representative office in New York in 1962 as a window to export sewing machines to America. In the 1970s, overseas subsidiaries were established in the North America, Europe, and Asia to market sewing machines for home use and automotive parts or to manufacture sewing machines.

In response to the yen's appreciation against the dollar after the 1985 Plaza Accord, the AISIN Group began producing automotive parts in the United States, Taiwan, and Mexico, as well as setting up R&D subsidiaries in the United States and Europe. By the early 1990s the AISIN Group had 14 overseas

group companies. In the mid-1990s, we accelerated our overseas expansion by setting up more production plants in North America, Asia and Europe, in response to the yen's further appreciation and increased overseas production by Japanese automakers, as well as in coping with import restrictions on completed vehicles in some regions. By the end of March 2001, there were 36 AISIN Group companies operating overseas.

During the fiscal year 2002 we established an additional eight companies overseas including seven manufacturing companies (three in America, four in China) and one R&D company in Europe. Altogether, 49 AISIN Group companies are located in 13 countries, including those newly accounted for as

### Overseas Consolidated Subsidiaries Established in Fiscal 2002

	Name	Location	Established	Major Products	Start of Production	Sales Target
U.S.A.	Aisin Brake & Chassis, Inc. (established by Aisin Holdings of America, Inc.)	Indiana	October, 2001	Hydraulic brake booster	January, 2003	US\$100million (for FY2005)
	Aisin Mfg. Illinois, LLC. (established by Aisin U.S.A. Mfg., Inc.)	Illinois	October, 2001	Sunroof, Power sliding door system	January, 2003	US\$150million (for FY2005)
	ADVICS North America, Inc. (established by ADVICS Co., Ltd.)	Michigan	January, 2002	(R&D and Sales) Brake systems and components for automobiles	(Start of Operation) April, 2002	US\$500million (for FY2005)
Europe	AW Technical Center Europe S.A. (established by Aisin AW Co., Ltd.)	Braine-L'Alleud, Belgium	July, 2001	(R&D) Automatic transmission, Car navigation system	(Start of Operation) July, 2001	



	Name	Location	Established	Major Products	Start of Production	Sales Target
China	Aisin Tianjin Body Parts Co., Ltd. (joint venture of Aisin Seiki, Tianjin Xinlu Auto Parts Co., Ltd. and three other companies)	Tianjin, Hebei	May, 2001	Door latches, Window regulator	July, 2002	CNY50million (for FY2004)
	Zhejiang Aisin Elite Machinery & Electric Co., Ltd. (joint venture of Aisin Seiki and Elite Sewing Machine Mfg. Co., Ltd.)	Hangzhou, Zhejiang	June, 2001	Household sewing machines and accessories	October, 2001	CNY330million (for FY2005)
	Takaoka Lioho (Tianjin) Industries Co., Ltd. (joint venture of Aisin Takaoka and Lioho Machine Works Ltd.)	Tianjin, Hebei	October, 2001	Brake disk rotor, Brake drum	October, 2002	CNY2million (for FY2002)
	Hangzhou Aisin INAX Machinery and Electric Co., Ltd. (joint venture of Aisin Seiki and INAX Corporation)	Hangzhou, Zhejiang	December, 2001	Shower-toilet seats, Peripheral equipment and related parts	October, 2002	CNY150million (for FY2005)

consolidated companies: 32 production companies, 6 sales subsidiaries, and 11 R&D and other entities.

The fiscal year 2002 also saw significant events around the world for the AISIN Group. We established two production sites for life & energy related products, our first facilities in China. One produces sewing machines and the other produces shower toilet sheets, which those are expected further increasing demands. We also established our first R&D subsidiaries in Europe to develop automatic transmissions and car navigation systems.

To respond to our clients' needs by further expanding our global operations, we decided to open our first production base in South America, in Brazil. This will be accomplished by increasing capital support for our subsidiary, Aisin Do Brazil Com. E Ind. Ltda., which has been a company for market research. It plans to begin production of automobile body parts in January 2003. We are also close to deciding on a location for a new production site in Europe.

In addition to extending the production bases, we are expanding our R&D institutions in IMRA America, Inc. to improve our R&D capabilities.

## Strategic Alliances

Globalization of our operations is not limited to building plants overseas, but also includes forging cooperative ventures with other companies to enhance competitiveness. We set up a joint venture company, ADVICS Co., Ltd. (ADVICS), for the development of brake systems; concluded an alliance agreement with EXEDY Co., Ltd. (EXCEDY) and its group for cooperating in the drivetrain related business in overseas markets; and initiated discussions with Robert Bosch GmbH (Robert Bosch) and Bosch Automotive Systems Corporation (Bosch Automotive Systems) for a joint venture company.

In the brake & chassis related business, suppliers are now providing automakers with brake systems with advanced control mechanisms rather than with brake components where more active safety is required. ADVICS was established by Aisin

Seiki, DENSO Corporation (DENSO), Sumitomo Electric Industries, Ltd., (Sumitomo Electric Industries), and Toyota Motor Corporation bringing together the technological expertise and experience of the four parent companies to develop and build the world's best brake systems. By supplying top-notch systems globally, ADVICS aims to achieve ¥250 billion (US\$1,876 million) in sales in 2005.

The AISIN Group's strategic alliance with EXEDY and its group companies, which are famous manufacturers of clutches and torque converters, will enable it to establish a cost-effective worldwide production network of drivetrain related products in North America and Asia through the efficient use of the management resources of both companies.

Aisin AW Co., Ltd. set up CVTEC Co., Ltd. (CVTEC) with Robert Bosch and Bosch Automotive Systems in July 2002 to ensure stable supply of continuously variable transmissions (CVT), and the new company will begin production of metallic belts for use in CVT in mid-2003. CVTEC plans to produce 0.4 million belts initially, increasing production levels to one million belts in the future.



At the announcement of establishment of ADVICS: Mr. Okabe, President of DENSO (left), Mr. Okayama, President of Sumitomo Electric Industries (right) and Mr. Toyoda, President of Aisin Seiki (center).