

SET

ANNUAL REPORT 1998

Year ended March 31, 1998

 SUMITOMO ELECTRIC



SEI'S CORPORATE MISSION IS TO SERVE SOCIETY BY APPLYING TECHNOLOGICAL INNOVATION TO THE DEVELOPMENT OF TOMORROW'S PRODUCTS AND SERVICES. THIS MISSION IS REPRESENTED GRAPHICALLY BY THE COMMUNICATION SYMBOL, WHICH FEATURES THREE DIAGONAL LINES EXTENDING FROM THE TOPS OF THE COMPANY'S INITIALS, SEI. THESE THREE LINES DENOTE THE KEY WORDS THAT SUM UP SEI'S OPERATIONS: RELIABILITY, VITALITY, AND CREATIVITY.

Sumitomo Electric Industries, Ltd. (SEI), is Japan's largest manufacturer of electric wire and cable. Since its establishment a century ago, the Company has engineered technological change by adopting an aggressive research and development strategy. By innovatively fostering home-grown technologies and successfully diversifying into exciting fields, SEI has positioned itself as a key player in the global information revolution taking place today.

C o n t e n t s

1	Financial Highlights
2	A Message from the Management
5	Review of Operations
18	Board of Directors
19	Consolidated Five-Year Summary/Financial Review
21	Consolidated Financial Section
37	Non-Consolidated Financial Section
51	Corporate Directory
55	Investor Information

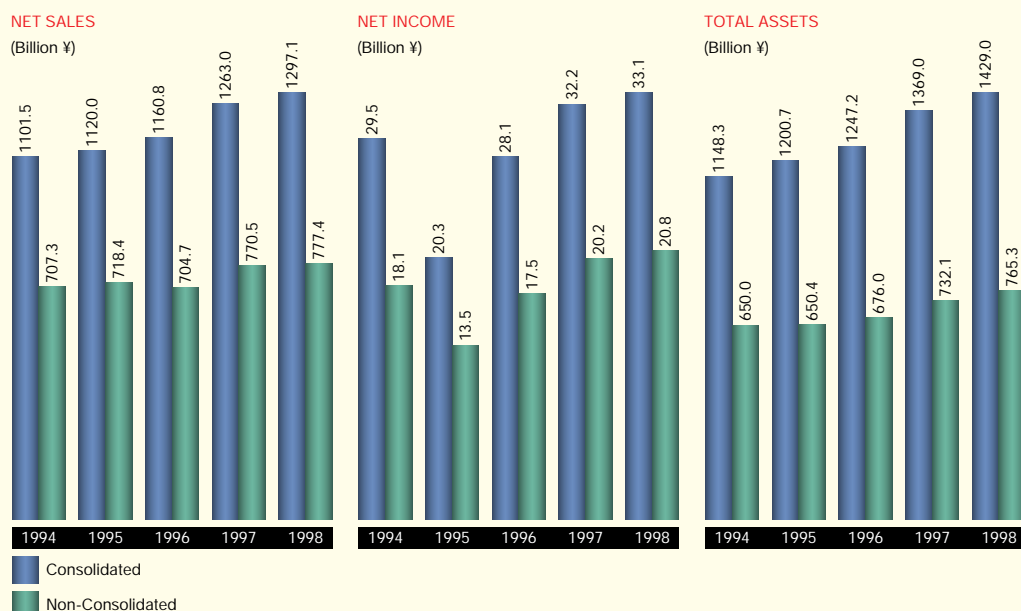
Financial Highlights

Sumitomo Electric Industries, Ltd.
For the years ended March 31, 1998 and 1997

	Consolidated			Non-Consolidated		
	Millions of yen		Thousands of U.S. dollars	Millions of yen		Thousands of U.S. dollars
	1998	1997	1998	1998	1997	1998
Net sales	¥1,297,083	¥1,262,993	\$ 9,818,948	¥777,426	¥770,489	\$5,885,132
Income before income taxes.....	62,660	61,425	474,338	36,059	36,140	272,967
Net income.....	33,120	32,207	250,719	20,759	20,240	157,146
Total assets.....	1,429,036	1,369,017	10,817,835	765,273	732,101	5,793,134
Total shareholders' equity.....	536,083	509,406	4,058,160	367,070	352,129	2,778,728
Capital expenditure.....	97,094	78,093	735,004	32,658	27,708	247,222
R&D expenditures.....	45,818	43,040	346,843	28,622	26,864	216,669
	Yen		U.S. dollars	Yen		U.S. dollars
Per share of common stock:						
Net income.....	¥ 45.51	¥ 45.22	\$ 0.345	¥ 28.53	¥ 28.42	\$ 0.216
Cash dividends	10.00	12.00	0.076	10.00	12.00	0.076

Notes: 1. All dollar figures herein refer to U.S. currency. Yen amounts have been translated, for convenience only, at the rate of ¥132.10 to \$1, the approximate exchange rate prevailing on March 31, 1998. Billion is used in the American sense of one thousand million.

2. The computation of net income per share is based on the weighted average number of shares of common stock outstanding during each period.



A Message from the Management

OPERATING ENVIRONMENT AND BUSINESS RESULTS

In fiscal 1997/1998, ended March 31, 1998, economic conditions around the world varied according to region, as the United States and countries in Europe continued to record strong growth while most Asian countries became mired in the economic turmoil that was set off by the currency crisis in Thailand. Amid these conditions, the Japanese economy, despite a surge in exports triggered by the weak yen, continued to be hampered by stagnant domestic demand, resulting in Japan experiencing negative growth for the first time in 23 years.

Against this backdrop, Sumitomo Electric Industries, Ltd. (SEI), focused its human and



Tetsuro Kawakami (right),
Chairman of the Board and CEO
Noritaka Kurauchi (left), President

financial resources on high-growth business areas to ensure its continued success amid intense domestic and overseas competition. The Company worked to strengthen its profitability by integrating its product development, manufacturing, and marketing activities; reducing total costs; and focusing on enhancing product quality.

As a result of these efforts, SEI achieved consolidated net sales of ¥1,297.1 billion, an increase of 2.7% from the previous term, thanks primarily to strong sales growth in the New Business and Others Division as well as the impressive results posted by subsidiaries and affiliates in the United States. On the other hand, operating income decreased 16.5%, to ¥66.8 billion, because cost of sales and selling, general and administrative expenses rose. Consequently, net income reached ¥33.1 billion, a rise of 2.8% over last year.

SEI issued cash dividends of ¥10.00 per share for fiscal 1997/1998, consisting of a ¥5.00 midterm and a ¥5.00 end-of-term dividend payout.

CAPITAL INVESTMENT AND FUNDING

Capital expenditure, which during the term centered around strategic investments in the areas of information and communications, reached ¥97.1 billion, and R&D investment totaled ¥45.8 billion. To finance these activities and allocate funds for the redemption of corporate debentures, SEI issued unsecured bonds totaling ¥40 billion in four installments during the term. Moreover, on April 24, 1998, the Company again issued unsecured

bonds totaling ¥20 billion in two installments to cover the redemption of corporate debentures and on May 27, 1998, issued unsecured bonds totaling ¥10 billion, which were allocated toward financing the Company's subsidiaries.

CORPORATE PHILOSOPHY AND VISIONS FOR THE NEW CENTURY

April 1, 1997, marked the 100th anniversary of the establishment of SEI. Throughout 400 proud years of existence, the Sumitomo Group, in which SEI plays a prominent role, has maintained a philosophy that business should never be undertaken hastily but always be conducted with sincerity, courtesy, and prudence. Added to this fundamental idea is SEI's unshakable tenet that people and technology are the keys to building a better society. For over 100 years, SEI has stayed true to these beliefs in shaping its business principles to:

- Offer the very best goods and services to satisfy customer needs
- Build technical expertise, realize changes and strive for consistent growth
- Contribute to creating a better society and environment, with a firm awareness of our social responsibility
- Maintain high corporate ethics and strive to become a company worthy of society's trust
- Nurture a lively corporate culture that enables employee self-improvement

SEI is striving to realize the following business vision for the new century encompassing:

- Growth and Development of the Entire Sumitomo Electric Group
- Self-Transformation into a Truly Global Corporation
- Harmonization with the Local Community in Conducting Business Overseas
- Reinforcement of Our Corporate Constitution to Succeed in International Competition
- Development of New and Original Businesses and Products

ADDRESSING GLOBAL ENVIRONMENTAL CONCERNS

During April 1997, SEI began to undertake activities at its plants with the goal of achieving ISO 14001 environmental management system certification for all its facilities. In March 1998, the Company's Kumatori Works became the first SEI facility to obtain ISO 14001 certification. In addition, employees at SEI have begun to emphasize conservation and environmental preservation as part of their daily routine in line with the Company's Environmental Policy announced in July 1997.

OUTLOOK FOR FISCAL 1998/1999

In the current fiscal year, despite the expectation of steady growth in the United States and Europe, ongoing economic turmoil in major Asian countries, including South Korea and Indonesia, has cast a shadow on prospects for the future growth of the world's economies. In Japan, the outlook for the domestic economy remains bleak despite the anticipation of comprehensive economic measures by the Japanese government. In addition, the operating

environment surrounding SEI is expected to become increasingly severe in the coming term due to such factors as shifts in customer's procurement policies and intensifying competition in the industry brought on by the emergence of the global economy.

Amid this harsh business environment, SEI is carrying out comprehensive cost-cutting measures to rationalize the entire spectrum of its operations and targeting strategic resources at business fields with strong growth potential. The Company is aggressively working to develop and market products and technologies that maximize its distinctive technological capabilities.

In its information business, SEI is focusing on enhancing production and sales systems for optical-fiber cables, one of its core product areas, as well as expanding the amount of resources devoted toward optical-data links and optical-communications systems, areas with seemingly unlimited growth potential. In addition, the Company is dedicated to securing orders for projects related to information and communications systems, such as traffic control and transportation infrastructure projects. In the area of electric power, SEI is working to expand sales of ultrahigh-voltage power cables and maintenance systems for transmission lines as well as develop and commercialize environment-friendly cable products. In its automotive segment, SEI and its subsidiaries are setting up strategic alliances with overseas manufacturers in related fields and striving to increase their share of the global market for automotive wiring harnesses.

Responding to customer demands for safer and more environment-friendly automobiles, the Company is working to market high-performance braking systems and exhaust filters, vehicle navigation systems with networking functions, and electronic devices and systems for use in next-generation automobiles. Furthermore, SEI is devoting considerable energy to the development and sale of such products as high-density flexible printed circuits, compound semiconductors, and synthetic diamonds. SEI is continuing to give priority to innovative R&D activities, increasing efficiency, and creating new products and technologies that support its core businesses.

SEI is committed to strengthening its cooperation with all its affiliated companies throughout Japan, North America, South America, Europe, and Asia in every area of operations to bolster the competitiveness of the entire SEI Group. We look forward to the continued support of our shareholders, customers, and employees as we face the challenges ahead.

June 1998



Tetsuro Kawakami

Chairman of the Board and CEO

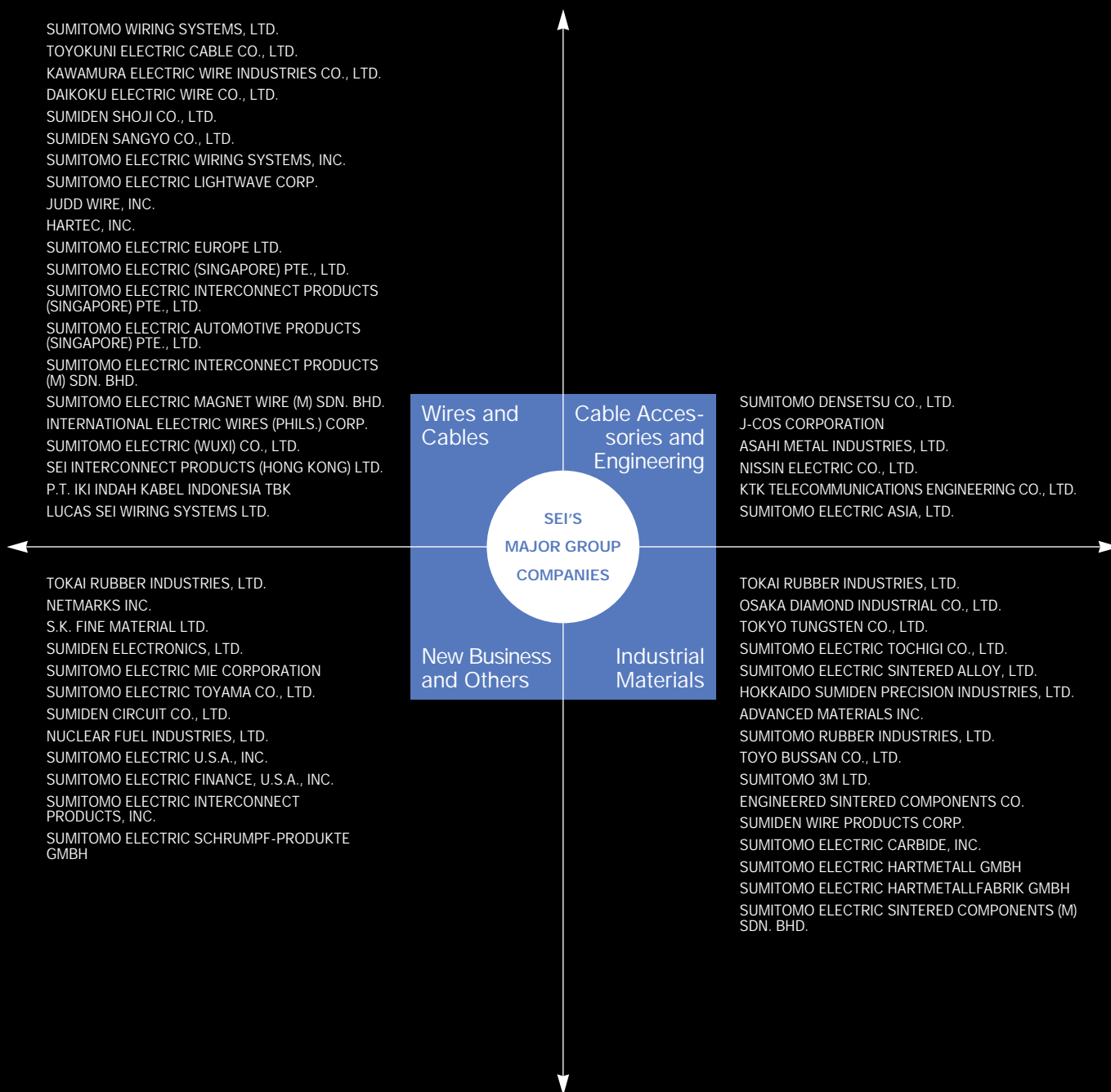


Noritaka Kurauchi

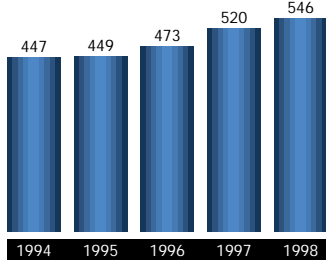
President

Review of Operations

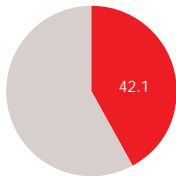
SEI is a global enterprise comprising 277 domestic and overseas Group companies; 114 in the Electric Wires and Cables Division, 48 in the Cable Accessories and Engineering Division, 71 in the Industrial Materials Division, and 44 in the New Business and Others Division. SEI's production bases cover the four corners of the globe, with major plants in Asia, North America, and Europe as well as facilities in South America, Africa, and Australia. Although the SEI Group manufactures a vast array of products that cover numerous business fields, its main focus is on supplying the goods and materials necessary for infrastructure projects that contribute to global prosperity.



SALES
(Billion ¥)



PERCENTAGE OF NET SALES
(%)



PRODUCTS

- ELECTRIC CONDUCTORS
- ELECTRIC POWER CABLES
- TELECOMMUNICATIONS CABLES
- OPTICAL-FIBER CABLES
- OPTICAL-FIBER COMPOSITE OVERHEAD GROUND WIRE
- AUTOMOTIVE WIRING HARNESSSES
- WIRE FOR ELECTRONIC PRODUCTS
- MAGNET WIRE

During fiscal 1997/1998, sales in the Electric Wires and Cables Division rose 5%, to ¥546.0 billion, although operating income for the division fell 22%, to ¥30.4 billion. Despite the Company's buoyant sales of optical-fiber cables and electric power cables in the first half of the term, the sluggish Japanese economy in the second half stifled demand for such mainstay products as optical-fiber cables and electric wire, wiring harnesses for automotive use, and wire for electronic products.

The following are highlights of SEI's ongoing power cable projects as well as new developments in environment-friendly wire and automobile accessories.

MANUFACTURE OF DC500KV 50KM SUBMARINE OIL-FILLED CABLE COMPLETED

SEI has completed the manufacture of a DC500kV single core 3,000mm² optical-fiber composited submarine oil-filled cable, which is 50km in length and was delivered in May 1998. This cable was ordered by the Kansai Electric Power Co., Inc., and Electric Power Development Co., Ltd., and will be installed as part of the transmission line between Japan's main island of Honshu and Shikoku. Its conductor size and length are the largest and the longest, respectively, of any 500kV submarine cable in the world. The laying of this cable was completed in June 1998.



SEI PROMOTES WIRE AND CABLE ECO-PROJECT FOR A CLEANER ENVIRONMENT

Electric wires and cables contain a wide variety of rubber and plastic materials in addition to copper and aluminum. Using conventional disposal methods, such as incineration or landfill disposal, these materials release dioxins and other poisons that are thought to pose grave environmental risks. For this reason, SEI is forging ahead with the Wire and Cable Eco-Project aimed at developing wires and cables that use only ecologically sound materials. SEI has successfully developed and commercialized wires and cables that, when burned, release minimal smoke and emit no harmful gases, including dioxins.



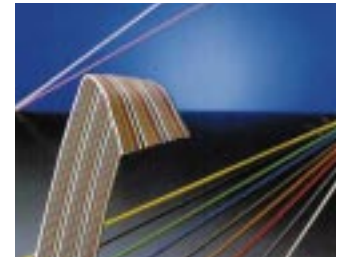


SEI DEVELOPS NEW HEAT-RESISTANT MAGNET WIRE USED IN NEW TOYOTA HYBRID CAR "PRIUS"

Calls by automakers for high-quality, environment-friendly parts have intensified in recent years. Against this backdrop, the dream of the hybrid car is quickly becoming a reality. The new Toyota hybrid car "PRIUS" now comes installed with SEI's newly developed heat-resistant magnet wire in both the electric motor and the generator. Magnet wire features superior performance and vastly improved lubricating functions as well as scrape-resistant properties that guard against damage during the coiling process, thus increasing a coil's life.

SEI DEVELOPS LEAD-FREE PVC-INSULATED WIRE FOR AUTOMOBILES AND ELECTRONIC PRODUCTS

There are increasing demands on a global scale to stop the use of lead in industrial products, thereby reducing the amount of pollution caused by waste materials. Such demand initially occurred in the automobile industry, and now manufacturers in other industrial fields, including those in the electronic appliance industry, are considering reducing the amount of lead in their products. It is common to use lead to maintain the heat-resistant properties of polyvinyl chloride (PVC) insulated wire, and SEI has already released a lead-free PVC-insulated wire for automobiles, known by the brand name "AVX." To satisfy increasing customer demand, SEI has recently developed a new lead-free PVC-insulated wire for use in electronic products. It is expected that the lead-free movement will expand rapidly in this field, and SEI's lead-free PVC-insulated wire will satisfy such customer demand.



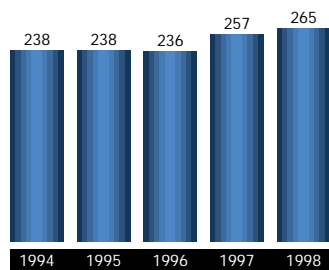
TOYOTA INCORPORATES CENTER CLUSTER INTEGRATION PANEL IN NEW MODELS

To satisfy the increasingly sophisticated demands of today's drivers, automakers have incorporated an extensive range of convenient features in their new models. SEI, in cooperation with plastics manufacturer Toyoda Gosei Co., Ltd., has developed a center cluster integration panel that unifies the controls of such automotive features as entertainment and environment-control functions in one convenient cluster panel. The original built-in design places the operations of such vehicle controls at the driver's fingertips and can be programmed to the specifications of individual drivers. The center cluster integration panel is standard on Toyota's

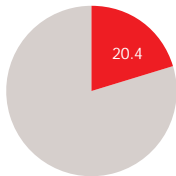


new "HARRIER" model, which also uses SEI's wiring harness, and is yet another example of SEI product development that is tailored specifically to satisfy user needs.

SALES
(Billion ¥)



PERCENTAGE OF NET SALES
(%)



PRODUCTS

- CABLE ACCESSORIES
- OPTICAL-FIBER FUSION SPLICERS
- ANTENNA SYSTEMS
- POWER LINE INFORMATION SYSTEMS
- TRANSMISSION CABLE ENGINEERING
- TELECOMMUNICATIONS CABLE ENGINEERING

In fiscal 1997/1998, sales in the Cable Accessories and Engineering Division grew 3%, to ¥265.1 billion, although operating income dropped 7%, to ¥8.0 billion. Although orders for construction of communications systems remained steady, strong demand for electric power projects and communications equipment helped lift SEI's sales. The outlook for electric power projects continued to be bright as demand for new projects remains strong.

The following are highlights of SEI's domestic and overseas projects.

SEI WINS ORDER FOR OPTICAL-FIBER POWER CABLE PROJECT IN MEXICO

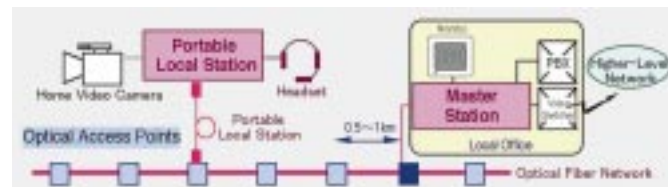
SEI and Mitsubishi Corp. have received a ¥12 billion order from the Commission Federal De Electricidad to construct power transmission lines in Cancún, Mexico. The full-turnkey project, under a build, lease, and transfer (BLT) scheme, began in February 1998 and is slated for completion in August 1999. The project entails the construction of an 18km submarine optical-fiber power cable (34.5kV) running from the Yucatan Peninsula to the island of Cozumel and a 16.5km underground cable (115kV) reaching out to the popular tourist resort of Cancún located on the tip of the peninsula.



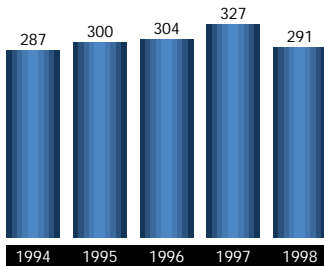
Presently, infrastructure projects that improve the quality of peoples' lives are on the rise, and SEI fully intends to play an important role in these worthwhile ventures.

OPTICAL-FIBER CABLE NETWORK FOR NAGANO HIGHWAY INFORMATION SYSTEM COMPLETED

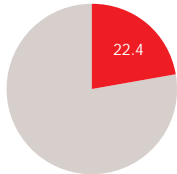
Aiming to improve the safety, convenience, and efficiency of highways in Nagano Prefecture, SEI has completed the construction of an optical-fiber cable network for the intelligent transport system (ITS) commissioned by the Nagano National Highway Construction Office, part of the Ministry of Construction's Kanto regional office. The optical-fiber cable network, established primarily along national highways 18 and 19 in Nagano Prefecture, is designed to transmit highway traffic information to improve traffic flow in the area. In addition to merely transmitting information on traffic movement, the system provides images, sounds, and other useful data for traffic control. SEI has laid two optical-fiber cables parallel with an existing 5.6km cable and service outlet system along national highway 19. The system contributed greatly to ensuring smooth traffic flow at the 1998 Winter Olympic Games, in Nagano.



SALES
(Billion ¥)



PERCENTAGE OF NET SALES
(%)



PRODUCTS

- PRESTRESSING MATERIALS FOR PRESTRESSED CONCRETE
- PIANO WIRE
- STAINLESS STEEL WIRE
- STEEL TIRE CORD
- HARD-DRAWN WIRE
- TUNGSTEN CARBIDE TOOLS
- POWDER METALLURGICAL PARTS
- COMPOSITE MATERIALS FOR SUBSTRATES AND HEAT SINKS
- ELECTRIC CONTACTS AND MATERIALS
- HEAVY ALLOYS
- SYNTHETIC MONOCRYSTAL DIAMONDS
- DIES
- RUBBER FUEL TANKS
- AIR SPRINGS
- INFLATABLE RUBBER MOBILE DAMS
- FLUORINE RESIN-COATED PRODUCTS
- FIBER-REINFORCED PLASTIC PRODUCTS
- INFRARED OPTICS

Sales in the Industrial Materials Division fell 11%, to ¥290.5 billion, and operating income dropped 26%, to ¥18.8 billion in fiscal 1997/1998.

A major factor behind this drop in revenue was the transfer of such products as resin precision hybrid products to the New Business and Others Division. During the term, the Company's sales of special steel wire and sintered alloy products remained flat. On the other hand, demand for other hybrid products was strong thanks to an increase in sales of rollers for laser printers and new orders for inflatable rubber mobile dams.

Below are examples of SEI's latest products and developments in the field of industrial materials.

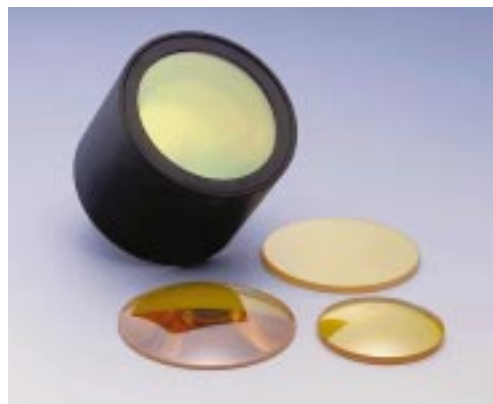
SPECIAL METALS SUBSIDIARIES MERGE

On April 1, 1998, SEI subsidiaries Nankai Senshu Steel Wire & Rope Co., Ltd., and Igeta Seiko Co., Ltd., combined to form Metax Corporation. Because both companies' core strengths lie in the manufacture and sale of special steel wire, including plated steel wire, steel wire for springs, and steel wire rope, the merger will enable the companies to share technologies and effectively integrate their R&D and strategic business activities. The merger is also designed to enhance business efficiency through such measures as the restructuring of operations and the rationalization of personnel.



SEI LAUNCHES FØ LENS FOR CO₂ GAS LASERS

The manufacture and marketing of optical components for carbon dioxide (CO₂) gas lasers has been one of SEI's key business areas for many years. Recently, manufacturers of lasers are placing increasing emphasis on the development of new laser processing systems capable of drilling minute holes (less than 0.1mm in diameter) on printed circuit boards for mobile telephones and other small electronic devices as well as creating laser markers for product identification. SEI's FØ lens greatly improves the laser drilling process by helping condense



the laser beam by guiding it through a series of aspherical lenses that help maintain the beam's focus to ensure pinpoint accuracy. The laser drilling is less costly than before because the system minimizes the number of lenses needed, and less cleaning is required thanks to window guards that protect the lenses.

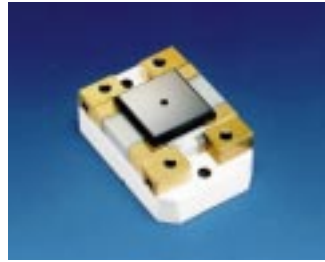
SEI HEAVY METAL SHEET EMPLOYED IN X-RAY INSPECTION EQUIPMENT FOR FOOD PRODUCTS

SEI has developed the Heavy Metal sheet, a lead-free alternative to conventional metal sheet that is nearly twice as effective in shielding against radiation leakage. Heavy Metal sheet is composed primarily of tungsten, yet possesses the same high specific gravity and vibration absorption properties as lead-based sheet while being as flexible as rubber. Heavy Metal sheet was released on April 1, 1998, and has already been selected for use in Nissin Electric Co., Ltd.'s new Seek Bird food inspection X-ray equipment. SEI aims to market Heavy Metal sheet for use in a variety of products.



SEI DEVELOPS DIAMOND TOOL FOR FLIP CHIP ASSEMBLY

In response to skyrocketing demand for such smaller and lighter electronic products as mobile phones and PCs, flip chip assembly technology using thermocompression to bond LSI chips directly to circuit boards is being developed. Until now, metal or ceramic tools have been used in flip chip assembly despite problems associated with heating and cooling speeds, tool life,



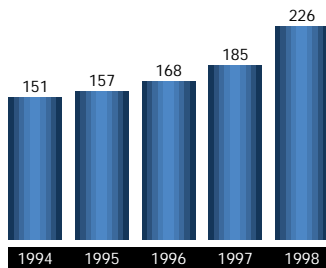
and reliability. To counter these deficiencies, SEI has developed a chemical vapor deposition (CVD) diamond tool that employs technologies using conductive CVD diamonds. The CVD diamond tool has a high level of thermal conductivity to ensure stability at high temperatures and superior abrasion resistance to significantly extend its life.

SEI MAKES DELIVERY OF A SUMIGATE TO LAOS

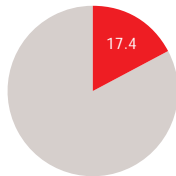
SEI delivered a SUMIGATE synthetic rubber mobile dam that will be used at the Theun Hinboun 2 X 105,000kW hydroelectric power plant under construction on the Nam Theun River (a branch of the Mekong River) in Laos. The power plant has been commissioned by the government of Laos as a build, operate, and transfer (BOT) project, and the order for the SUMIGATE dam was received through Italian floodgate maker ATB Caldereria. The SUMIGATE dam will control the water level of the power plant's reservoir, releasing excess in times of flooding. The Nam Theun floods yearly, and the SUMIGATE was selected for its capacity to control water levels as well as its outstanding performance under flood conditions. This is the first synthetic rubber mobile dam to be used in Laos, and SEI expects greater demand for the SUMIGATE dam in irrigation projects, hydroelectric power plants, and other infrastructure projects in Asia and around the world.



SALES
(Billion ¥)



PERCENTAGE OF NET SALES
(%)



PRODUCTS

- DISC BRAKES
- ANTILOCK BRAKING SYSTEMS
- DISC BRAKE PADS
- PRESSURE CONTROL VALVES
- TRAFFIC CONTROL SYSTEMS
- OPTICAL-FIBER LAN SYSTEMS
- OPTICAL-FIBER DATA LINKS
- DATA CAPTURE DEVICES
- MEDICAL INFORMATION SYSTEMS
- CATV SYSTEMS
- COMPOUND SEMICONDUCTORS
- METALLIC MATERIALS FOR ELECTRONIC LEAD WIRE AND RELATED COMPONENTS
- IRRADIATED PRODUCTS
- FLEXIBLE PRINTED CIRCUITS
- OXIDE SUPERCONDUCTING MATERIALS
- VEHICLE NAVIGATION SYSTEMS
- PHS BASE STATIONS
- OTHERS

New Business and Others Division sales surged 22%, to ¥226.0 billion, and operating income jumped 27%, to ¥9.4 billion in fiscal 1997/1998. Despite a fall in sales of automobile disc brake components and personal handyphone system (PHS) base stations, higher demand for such core products as antilock braking systems (ABS's), vehicle navigation systems, specialty metals for electronic products, compound semiconductors, and flexible printed circuits helped bolster SEI's sales.

The following are highlights of innovative products and ongoing reforms to production and sales systems that SEI has initiated to stay on the crest of evolving market trends.

HIGH-PERFORMANCE SPORTS DISC BRAKE PAD LAUNCHED

The recent deregulation of the Japanese auto parts industry has given rise to intensified demands by consumers for parts and accessories that better meet their car maintenance needs. Responding to this challenge, SEI launched the "SEI Brake Pad for Sports," a high-performance sports disc brake



pad with superior stopping power, which is available at auto parts stores throughout Japan. SEI Brake Pad for Sports boasts 20% more braking power than ordinary replacement disc brake pads and solves the problems of wheel stain and disc-rotor drift that have plagued sports disc brake pads until now, thus accommodating the needs of a wide range of drivers.

SEI ESTABLISHES DOMESTIC SALES SUBSIDIARY FOR BRAKE PRODUCTS

In April 1998, Sumiden Brake S&I, Inc., SEI's first domestic subsidiary established for the manufacture and marketing of automobile disc brakes in Japan, commenced operations. Until now, SEI has concentrated primarily on the production and sale of such brake components as disc brake pads and ABS for automobiles, motorcycles, industrial equipment, and trains. The new subsidiary will further strengthen SEI's sales capacity by combining the sales of brakes used in industrial machinery and on trains with SEI's established operations to effectively respond to the increasingly diversified demands of the brake and brake accessories market.

JAPAN'S FIRST ON-BOARD ADSL MODEM SYSTEM USING EXISTING TELEPHONE LINES LAUNCHED

The widespread use of the Internet and intranets has dramatically increased the need for ever-faster data transmission methods. SEI has conducted extensive R&D on products that use asymmetric digital subscriber line (ADSL) technology, which enables high-speed data transmission over existing telephone lines without having to construct a LAN. Having succeeded in turning this technology into a viable product, SEI has launched MegaBit Gear™, a customer premise ADSL modem system



that positions SEI well ahead of the competition. The system enables data transmission speeds of up to 7.2Mbps from server to terminal and up to 640kbps from terminal to server. Moreover, it is possible to use a telephone or facsimile machine on the same line while using the modem. The ADSL system eliminates the need for complicated setup procedures and allows users to easily monitor operational statuses as transmission speed and other information are displayed on an LCD panel.



WORLD'S SMALLEST 2.5GBPS OPTICAL DATA LINK DEVELOPED

To meet rapidly growing demand for voice and data transmission in the telecommunications field, transmission equipment is now required to handle increasingly higher amounts of data. The 2.5Gbps optical transmission technology has become important due to its large capacity, cost-effectiveness, and superior use of wavelength division multiplexing (WDM) technology. SEI has developed the world's smallest 2.5Gbps optical data link models (4.6cc for the transmitter and 13.0cc for the receiver) through the Company's unique transfer-mold technique. This 2.5Gbps optical data link is based on long wavelength devices and is powered by a single 5-volt power supply. This product is expected to significantly reduce the size, power consumption, and cost of transmission equipment.



NEW TRAFFIC CONTROL SYSTEM FOR SHIMANE PREFECTURAL POLICE HEADQUARTERS BEGINS OPERATION

In October 1997, SEI began upgrading the Shimane Prefectural Police Headquarter's traffic control system, which is now in full-scale operation. The system features an upgraded signal control computer with such operations as automatically set signal control parameters, traffic condition monitors, and traffic forecast systems. In addition, computer screens that display traffic conditions, including traffic jams, have been lengthened, making it possible to more precisely monitor the extent of traffic jams. Fast, user-friendly integrated workstations incorporating digital maps and multiple-window capabilities were installed to replace operating boards that had previously required several terminals for their operations. Traffic data processors access traffic databases and support such operations as document output and data input. The system also features a new traffic information display function that allows transmission control over regular telephone lines at a low cost, making it possible to offer real-time traffic information to remote areas in western Shimane Prefecture.



MASS PRODUCTION OF InGaAs EPITAXIAL WAFERS FOR OPTICAL-FIBER COMMUNICATIONS LAUNCHED

The fiber-to-the-home (FTTH) market is creating greater demand for photodiodes, one of the key components necessary to complete the communication loop. To meet this demand, SEI has launched mass production of indium gallium arsenide (InGaAs) epitaxial wafers for photodiodes. SEI grows the wafers using its own chloride vapor phase epitaxy (C1-VPE) technology. This growth technique produces material that helps minimize current leakage and therefore reduces static in optical-fiber communications.

During SEI's C1-VPE manufacturing process, thin films of InGaAs are grown onto wafers from chloride compounds. Mass production of these InGaAs epitaxial wafers has been a challenging task because of the need to precisely control complex chemical reactions. SEI has developed production equipment that solves this problem. SEI used integrated gas and heat flow analysis and internally developed technology to design a reactor which enables simultaneous growth of multiple wafers.



AUTOMAKERS ADOPT SEI VEHICLE NAVIGATION SYSTEM IN NEW MODELS

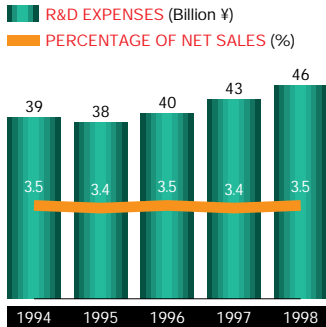
In recent years, the popularity of vehicle navigation systems has grown at an incredible rate. SEI has endeavored to develop vehicle navigation systems that are easy to use and offer superior functions. Honda Motor Co., Ltd., and Mitsubishi Motors Corp. now offer systems developed by SEI on many of their new models. SEI's vehicle navigation systems include a wide array of features, including a detailed route-search function that recommends the optimal routes and allows drivers to search their destination by a name, telephone number, or nearby structure; a road map that displays information on interchanges as well as service and rest stops on expressways; a traffic information display function that meets the requirements for the vehicle information communication system (VICS™); and the simultaneous display of two reduced-scale maps on the system's wide-screen LCD. Moreover, the system calculates for detours, automatically recalculates when the driver strays from the recommended route, can be connected to an information center via mobile phone, and can save search results on an IC card.



HD HARNESS FOR HARD DISC DRIVES DEVELOPED

SEI now manufactures and markets multipurpose flexible printed circuits used in the internal wiring components of a number of electronic products, particularly information and communications devices. To meet the demand for smaller, lighter, and more sophisticated electronic products, the Company is developing a wide range of technologies that include precision technologies for multipurpose flexible printed circuits. SEI has now developed a wire suspension HD harness for PC hard disk drive devices that is expected to excel in performance and competitive pricing.

Research and Development



*One tesla is equivalent to 20,000 times the earth's magnetic field.

Despite a harsh operating environment, SEI's steadfast commitment to R&D remains unshaken. In fiscal 1997/1998, the SEI group invested ¥45.8 billion, an increase of 6%. In R&D activities, the Company focused on four strategic areas. In the field of optoelectronics, R&D was directed toward optical-fiber cables and accessories while research on new materials focused on synthetic diamonds and diesel particulate filters. In systems, SEI funneled its resources into optical LANs and traffic information systems and concentrated its energy research on redox flow secondary batteries and superconducting materials. The 1994 opening of the Harima Research Laboratory helped advance SEI's R&D activities targeted at synchrotron radiation (SR) technologies, and SEI has incorporated these new technologies into product development.

SEVEN-TESLA HIGH-TEMPERATURE SUPERCONDUCTING MAGNET DEVELOPED

SEI has succeeded in developing a bismuth high-temperature superconducting magnet capable of creating the world's largest magnetic field, with a magnitude of seven teslas (excitation speed: seven tesla*/min).

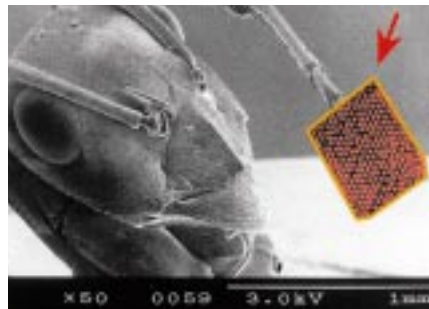
Superconducting magnets display a high critical temperature (the temperature at which electrical resistance reaches zero and superconductivity is achieved) that makes them easy to handle and dramatically lowers cooling costs. The development of this magnet was commissioned by the Japan Science and Technology Corporation.



SEI DEVELOPS WORLD'S FIRST PIEZOCOMPOSITE TRANSDUCER FOR ULTRASONIC DIAGNOSES USING SR SOURCE

*Piezoceramic: a type of ceramic material that produces sound waves when voltage is received and produces voltage when sound waves are received

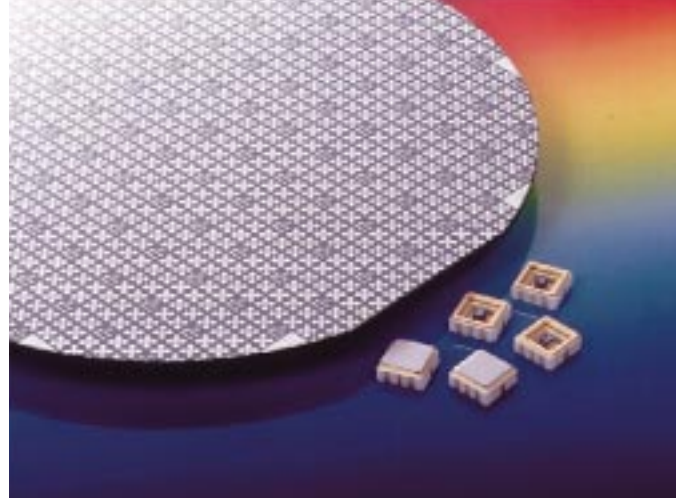
Piezoceramic* transducers—which use probes that can send and receive ultrasonic waves—are widely used in medical diagnoses. Responding to calls from the medical community for the use of smaller piezoceramic rods in transducers to increase accuracy, SEI has succeeded



in mass producing 25µm diameter piezoceramic rods using compact SR, enabling the development of the world's first piezocomposite transducer. Demand for the new transducer is growing as optometrists and practitioners of circulatory medicine are recognizing it as an indispensable tool for the early detection of tumors.

SEI DEVELOPS DIAMOND SAW FILTER FOR HIGH BIT RATE OPTICAL COMMUNICATIONS SYSTEMS

Surface acoustic wave (SAW) filters are key devices for communications systems, including optical, mobile, and satellite communications systems. Utilizing polycrystalline diamonds, SEI has developed the world's smallest 2.5GHz retiming filter for optical-fiber communications systems. Due to the layered structures of silicon dioxide and zinc oxide, diamonds have excellent properties with regard to temperature deviation and phase slope. This filter has been applied to the 2.5Gbps optical receiver module, enabling operations within a wide temperature range (-45°C to 80°C).



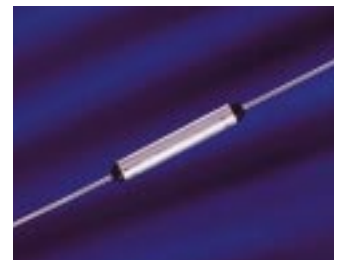
DPF SYSTEM FOR URBAN BUSES DEVELOPED

SEI has successfully developed the CELMET diesel particulate filter (DPF) system for urban buses, which reduces the amount of particulate matter in the exhaust emitted by diesel engines. CELMET, a three-dimensional porous metal manufactured by SEI, is used as the filter material. The filter system can purify emissions to almost unmeasurable levels and is compact enough to be installed on both new and existing vehicles.

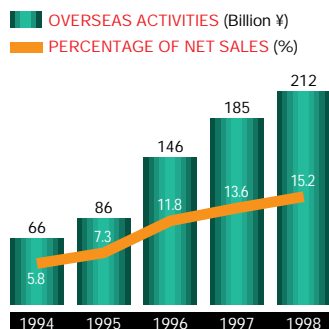


SEI DEVELOPS OPTICAL-FIBER GRATING COMPATIBLE WITH WDM TRANSMISSIONS

Optical-fiber gratings enable the identification of a specific signal from the narrow bandwidth carried by a single optical fiber and the reduction of optical signal wavelength intervals. As a result, a greater number of wavelengths can be used in a transmission band. This new technology will reduce the cost and increase the efficiency of optical transmission as it will no longer be necessary to change the electronic signals when adding or dropping optical signals. Optical-fiber gratings are another example of independently designed and developed SEI products that target the sophisticated needs of the 21st century.



Overseas Activities



The strong performances of affiliates in North America and Europe helped boost earnings from overseas activities 14%, to ¥211.8 billion, despite the difficult operating environment brought on by the economic turmoil in Asia.

During the term, SEI continued to increase production capacity at overseas subsidiaries while establishing new enterprises in strategic areas. However, due to a drop-off in demand in Asia, investment in overseas facilities fell 6%, to ¥15.8 billion. Noteworthy investments included the establishment of a facility in China for the production and sale of optical fiber; a manufacturing and marketing facility for electric wire used in automotive wiring harnesses in the United States; an automotive wiring harness technical center in Germany; and facilities in China and India for the manufacture and sale of hard metal products in these rapidly growing economies.

OPTICAL FIBER MANUFACTURING AND SALES COMPANY ESTABLISHED IN CHINA

In February 1998, SEI and China's largest telecommunications cable manufacturer, Chengdu Telecommunications Cable Co., Ltd.—a company with strong ties to the Chinese Ministry of Information—established Chengdu SEI Optical Fiber Co., Ltd., for the production and sale



of optical fiber in the rapidly growing Chinese market. Chengdu SEI Optical Fiber is SEI's first local production base for optical fiber, and the company will focus on increasing sales of optical fiber to manufacturers affiliated with China's Ministry of Information as well as to other domestic manufacturers.

AUTOMOTIVE WIRING HARNESS TECHNICAL CENTER ESTABLISHED IN GERMANY

In July 1997, SEI teamed up with Sumitomo Wiring Systems Inc. to establish Sumiden Automotive Technologies GmbH (SATG), a new technical center created to strengthen SEI's marketing operations and provide technical support for automotive wiring harness products sold in Europe. SATG is expected to benefit greatly from the technical expertise provided by other SEI facilities in Europe presently manufacturing wiring harness products in a bid to develop new sales channels and offer customers comprehensive technical support. The new company plans to expand its services into other automotive-related fields, such as brakes, powder metal components, and irradiated products.



SEI FORMS JOINT VENTURE COMPANY TO DESIGN AND DEVELOP SYSTEMS ELECTRONIC PRODUCTS IN SINGAPORE

In recent years, SEI has made stringent efforts to expand its information communications business in response to the rapid advancements made in information technology. To this end, SEI established VS Electronics Pte., Ltd., a joint venture formed with electronics manufacturer Venture Manufacturing (Singapore) Ltd. (VMS). VMS has been under license since 1997 to manufacture a portion of SEI's electronic products and now will work directly with SEI to design and develop electronic products in Singapore.

SEI's electronics-related R&D activities had been limited to the Company's Osaka Plant and its U.S. base in Silicon Valley. With technology advancing at breakneck speeds, companies must enhance their R&D capabilities to accelerate the development cycle, from design to production. This third R&D base enables SEI to divide its research into three regions, helping to foster the more efficient development of such highly sophisticated electronic products as LANs.



SEI COMMENCES OPERATIONS

In January 1998, Sumitomo Electric Hardmetal Manufacturing India Pvt., Ltd. (SMI), the first SEI affiliate established in India, commenced operations. Incorporated in June 1997 in the



outskirts of New Delhi, SMI is a joint venture with Motherson Triplex Tools Pvt., Ltd., a local cutting tool distributor. The new subsidiary primarily manufactures and markets cubic boron nitride and sintering diamond-based cutting tools. SEI is expecting substantial sales growth in the next few years, enabling it to stay competitive in the rapidly expanding Indian market.

SEI TAKES STAKE IN CHINA'S HANZHOU WAL SIN POWER CABLE & WIRE CO., LTD.

Hanzhou Walsin Power Cable & Wire Co., Ltd., established for the manufacture and sale of high-voltage XLPE power cables in the Chinese market, is a joint venture between Taiwanese wire and cable manufacturer Walsin Lihwa Corporation and China's Zhejiang Electric Power Materials & Equipment Company. SEI has taken a 20% stake in this joint venture and is working with its new partners to manufacture cable accessories for high-voltage XLPE power cables for the Chinese market. Hanzhou Walsin Power Cable & Wire works to supply products to local power companies in Zhejiang Province and other regions in eastern China.

