# This isn't just manufacturing services.

[*it's supply–chain management across the entire product life cycle*]

The pressure facing brand-name electronics companies has never been more intense. With ever-shorter product life cycles, speed and time are critical. Resources are scarce. The market unforgiving. Our customers have to get it right the first time — and get there fast.

Unlike in the past, brand-name companies can't do it all themselves and remain competitive. It takes too much time, money and energy to be an expert at everything. So they focus on what they do best — develop innovative products and services, reach key markets and build brand loyalty. In turn, they rely on expert partners for important, complementary services.

Solectron is their supply-chain expert. Electronics companies can count on us to handle all the actions, processes and relationships necessary to turn a great idea into a great product — and to keep it in great working condition for the end-user. From the time a product is conceived all the way through repair and end of life, our services, products and solutions make our customers more competitive.

Manufacturing

Development
and Design

CUSTOMER

Post-
Manufacturing
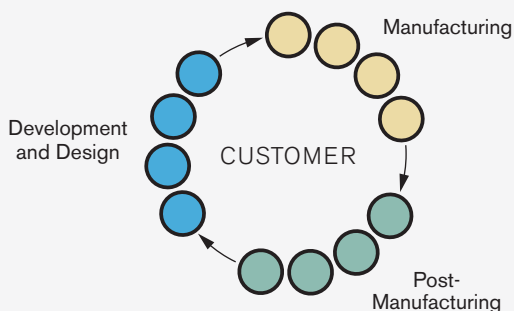
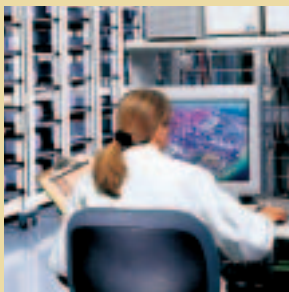### SERVING THE PRODUCT LIFE CYCLE

Supply-chain efficiency has never been more important for our customers. We combine our suite of services into solutions to drive greater speed, efficiency and performance throughout the product life cycle. No other EMS company has a complete offering — with integrated services that in turn link with our customers' businesses. This gives us an edge in delivering the lowest total cost and fastest time to market — helping our customers compete more effectively.

Since outsourcing proved its value in the 1990s, high-tech companies have steadily expanded the range of supply-chain activities they outsource. Today, as economic and market pressures intensify, outsourcing increasingly involves the complete product life cycle.

That's a big responsibility, because an efficient, reliable supply chain is critical to get products to market on time and on budget with superior quality. As the only company with expert services that span the entire product life cycle, Solectron is uniquely equipped to deliver what electronics companies need.

We have steadily and methodically developed our full-service offering. We combine those services with expertise and market know-how to create solutions for customers in a range of industries. And we are winning business as a result.

As the supply-chain partner for the product life cycle, we help our customers compete by delivering speed. Reliability. Flexibility. Efficiency. Quality. Low cost. And services that protect *and* enhance their brands.

Design

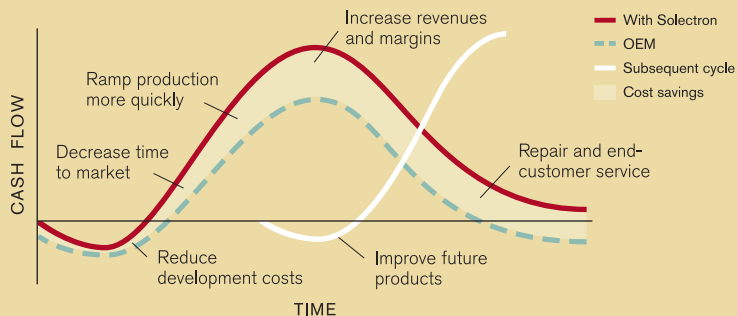Materials Management

Manufacturing

Post-Manufacturing

DELIVERING VALUE AT ALL LIFE-CYCLE STAGES

Customers can partner with Solectron at any stage of the product life cycle and gain strategic time and cost advantages. The more supply-chain services we provide— from product concept to end of life— the better able we are to deliver greater value and efficiency.

OEM Product Life-Cycle Cash Flow

Increase revenues and margins

Ramp production more quickly

Decrease time to market

Reduce development costs

Improve future products

Repair and end-customer service

CASH FLOW

TIME

— With Solectron
- - OEM
— Subsequent cycle
Cost savings

This is more than a customer service representative.

[she embodies our expertise across the product life cycle]

A chain is only as strong as its weakest link. That's why we developed world-class capabilities at all stages of the electronics product life cycle.

We've got what it takes to create the most efficient supply chains for our customers. That's right — supply *chains* — plural. Because the supply chain for a mass-produced cell phone is different from the supply chain required for computing systems. While different, each is complex in its own way.

Other companies talk about the full life cycle. Solectron delivers it — with front-end and post-manufacturing services unique in our industry. And with the technology know-how and process-driven culture in manufacturing that we've long been known for.

In product design, for example, our modular and custom-engineered computing solutions form technology building blocks that enable rapid development of complex products and systems. Our full-product manufacturing services are founded on processes that earned Solectron two Malcolm Baldrige National Quality awards. And in post-manufacturing services, we not only repair products, our highly skilled technical staff helps end-users troubleshoot problems. In fact, by linking our repair and end-user contact services, we recently helped a customer reduce service events by 15 percent in just five months.

By looking at the complete life-cycle process, rather than each link separately, we save money for our customers and enhance their brands. Our outstanding services deliver value individually — and that value is magnified as customers work with us throughout the product life cycle.

< **END TO END.** Our extensive design capabilities, which range from electrical to enclosure and functional design, enable us to accelerate our customers' time to market. For example, by working with one of our networking customers during the product design stage, we utilized our embedded systems products and expertise to cut product development time in half, allowing the customer's engineering teams to focus on other design activities.

GUADALAJARA,
MEXICO

MILPITAS,
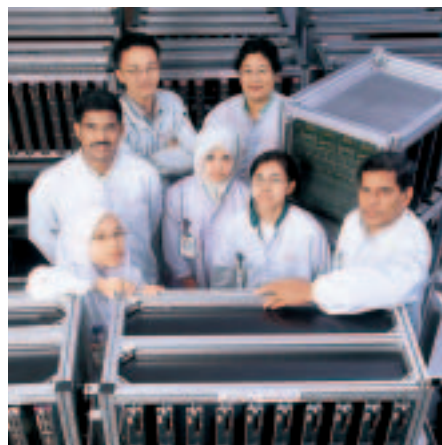UNITED STATES

SUZHOU,
CHINA

SHANGHAI,
CHINA

SINGAPORE

NAKANIIDA,
JAPAN

TIMISOARA,
ROMANIA

PENANG,
MALAYSIA

AMSTERDAM,
NETHERLANDS

This is more than a low-cost region.

[*it's the emerging focal point of our supply base*]

Whether it's a next-generation server or the hottest digital entertainment device, consumers today expect more for less. Sign up for a wireless service plan and you'll get a free cell phone. In this environment, it's not surprising that our customers are focused on the bottom line as never before. This means we must deliver the lowest total cost solutions to meet their supply-chain needs.

Lowest total cost means locating our services where we can cost-effectively add the most value. We perform design and new product introduction services near our customers' engineering centers. We provide repair services near product end-users. And more and more, we manufacture increasingly complex products in low-cost regions, particularly in Asia. This region is fast becoming the focal point of the electronics supply base. It offers skilled labor, a rich materials and supply network and an efficient distribution infrastructure. Two years ago, about one-third of our manufacturing footprint was in low-cost locations. By 2004, we expect that about 60 percent of our manufacturing will occur in low-cost regions—Asia, Latin America and Eastern Europe.

By locating the right capabilities in the right places, we drive up efficiencies and drive down *total* costs.

< **GLOBAL QUALITY.** We're proud to be a two-time winner of the U.S.-based Malcolm Baldrige National Quality Award. Quality is part of the fabric of our business—evidenced by our various quality certifications, including QS-9000, ISO 9000 and ISO 14000. Common processes and practices enable us to be flexible and responsive, and to deliver the quality our customers require to succeed. No matter where they are in the world.

307 PARTS SOURCED REGIONALLY
FOR 1 PDA AND 1 CUSTOMER
REPEATED COUNTLESS TIMES A YEAR
TO PRODUCE MILLIONS OF PRODUCTS
REQUIRING 32 BILLION PARTS
IN THE RIGHT PLACE, AT THE RIGHT TIME,
TO SERVE CUSTOMERS AROUND THE GLOBE
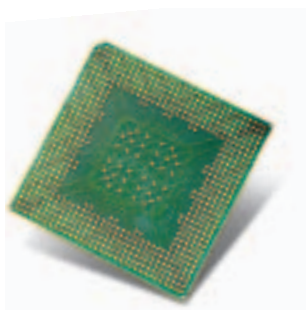
This is more than a microprocessor.

[*it's one of 32 billion parts we used in customer products this year*]

Materials — the processors, parts and components that go into manufactured goods — account for roughly 80 percent of the cost of the products we make. How we manage materials — and the information about them — is critical.

It's all about speed, efficiency and know-how. We review, evaluate and even redesign our customers' supply chains to make sure cost targets are met. Our global teams build partnerships with key suppliers to ensure adequate supply at the right time at the best prices. Internally, they coordinate regionally and globally to move supplies. They work with customers to keep a pulse on end-market demand. And, backed by strong IT systems, they track the information required to make sound decisions in a business that changes minute by minute.

Through our Active Business Partners tool, we provide customers with real-time information — about manufacturing, logistics, invoices, forecasts, supplier deliveries and more.

Suppliers access order acknowledgments, forecasts and status reports, as well as streamlined requests for quotes, through our WebPro and qPro tools. These tools enable the exchange of information necessary for real-time collaboration. And we continue to improve our supply base. For example, we are aggressively positioning supply-management resources in Asia to develop local sourcing options that support the influx of business in the region.

Most importantly, we use our deep experience and global relationships to manage all facets of the supply base for our customers so we can seamlessly deliver our product life-cycle services and solutions.

< **SUPPLY AND DEMAND.** When it comes to supply-chain efficiency, the operative words are velocity, reliability and price. We've got the know-how and the relationships to deliver the world's most efficient supply chains. That means sourcing, moving and tracking billions of parts for thousands of products — to make sure the right stuff is in the right place at the right time and at the right price. For example, we helped a global telecommunications customer reduce costs by more than 45 percent through materials leverage and global supply-base management.

CONSUMER ELECTRONICS
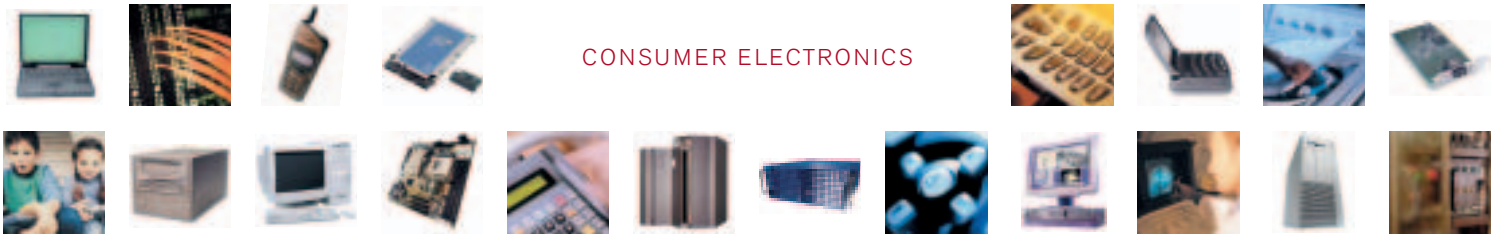
AIRCRAFT INSTRUMENTATION AND AVIONICS
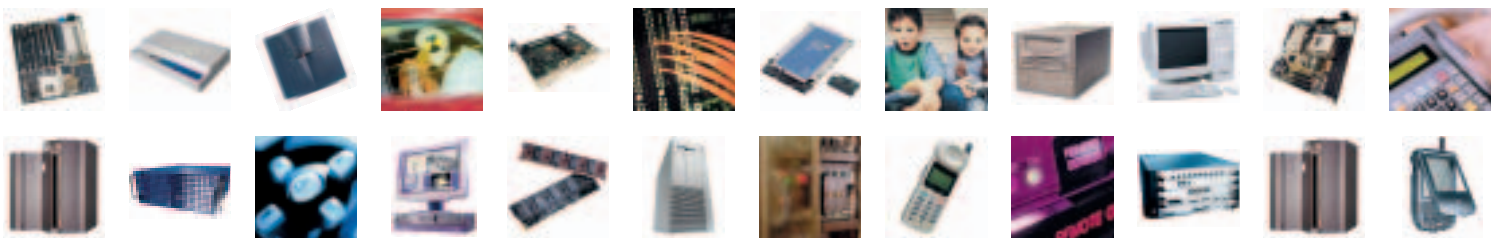
NETWORKING EQUIPMENT

MAINFRAMES AND SERVERS

PCS, NOTEBOOKS AND PERIPHERALS
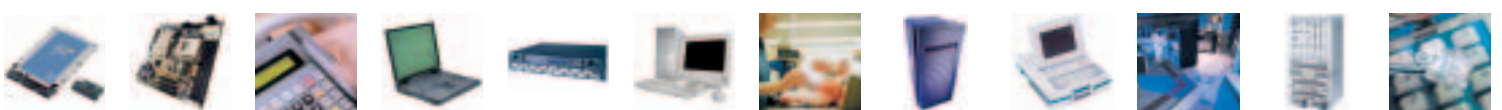
WIRELESS INFRASTRUCTURE AND HANDSETS

AUTOMOTIVE ELECTRONICS

TELECOMMUNICATIONS EQUIPMENT

INDUSTRIAL ELECTRONICS

This is more than an automobile.

[*it's yet another market opportunity*]

Technology's long reach is everywhere — driving the adoption of cool new products and energizing familiar products, as well. Sure, we make cell phones, high-end computer servers and complex equipment to power telecommunications and the Internet. But we also make sunroof controls, airbag safety sensors and navigation electronics for cars and aircraft, plus game consoles and set-top boxes for home enjoyment. We even have a hand in the electronic subsystems that give today's sophisticated washing machines greater intelligence.

High-tech electronics are becoming more pervasive, and that translates into a large and growing opportunity for our business. We are focused on market segments with solid, long-term growth potential. Our five primary target segments are automotive, communications, computing, consumer electronics and industrial. In those five industries, overall outsourcing in manufacturing alone is expected to grow from about $100 billion in 2001 to about $275 billion by 2005. This is simply a cross-section of a much larger global opportunity to provide broader services to customers in all industries.

In 2002, we continued to gain business in our traditional industry segments. And we expanded our presence in new segments — automotive and high-end consumer electronics, in particular.

The advantages — time, speed, cost and technology — that led electronics companies to embrace outsourcing are now attracting companies in other industries. As the supply-chain expert, that's good for our business.

< **IT'S ALL ABOUT ELECTRONICS.** From computers to handhelds, from cars to washing machines, the technology content of products continues to grow — even in industries not traditionally associated with high-tech. This presents an opportunity to further diversify the range of industries we serve — by delivering services that make customers in a growing number of industries faster and more competitive.

This is Solectron.
More speed. More value. More possibilities.

We are experts at bringing together technology, partnerships, expertise and know-how to help electronics companies turn great ideas into great products—and to keep the products working throughout their lives. Our supply-chain services and products cover the electronics product life cycle, from the time a product is developed and designed, to manufacturing and through post-manufacturing repair and customer service. With technology building-block products that accelerate the design phase, Baldrige-quality manufacturing services and customer-contact capabilities that generate unique cost and information advantages, Solectron delivers more than the competition.
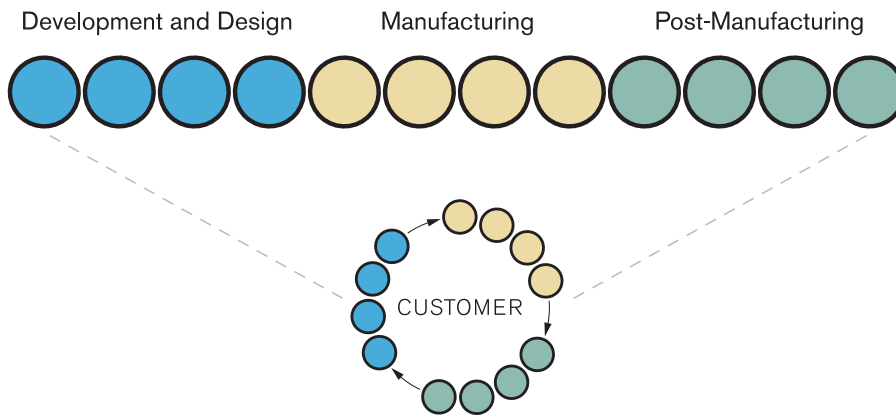
Strong individual services are only part of the story. We combine our world-class services with superior execution and market expertise to create solutions tailored to the needs of customers in specific market segments. By utilizing our life-cycle solutions, Solectron customers gain competitive advantages—faster time to market, lower total cost, better asset utilization and access to advanced technology. And that leads to long-term value for our shareholders and other constituents.

Development and Design

Building-block technology modules
Certification processing
Circuit test development
Component engineering
Electrical design
Enclosure design
Environmental stress testing
Functional design and test
Manufacturability design
Mechanical design
Prototype build
Qualification testing
Reliability engineering and test
Systems test development
Testability design

Manufacturing

Backplane assembly
Component subsystems and systems assembly
Direct fulfillment and distribution
Electromechanical assembly
Enclosure manufacturing and assembly
Engineering change management
Materials and supplier management
New product introduction
PCBA
Power, packaging and cooling
Retail packaging
Supply-chain design
Systems testing
Vendor-managed inventory control

Post-Manufacturing

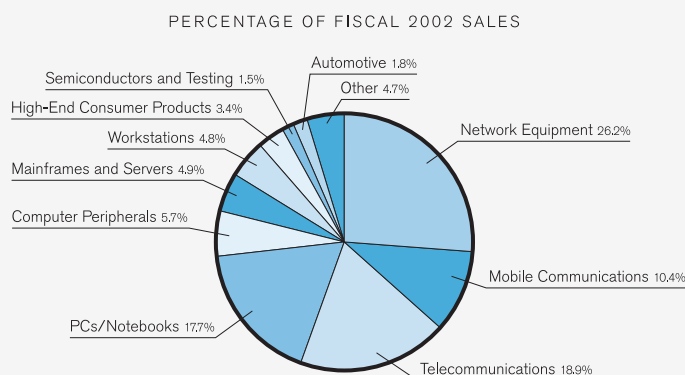Asset recovery
Customer contact centers
CRM
End-of-life support
Failure analysis
Parts management
Product repair
Recycling
Refurbishment
Remanufacturing
Returns processing
Reverse logistics
Troubleshooting support
Upgrades

Building-Block Products

Bluetooth™ and 802.11b modules and cards
DC-DC converters
Embedded single-board computers
Embedded motherboards
Frequency products
GSM/GPRS modules
High-availability systems
Mechatronics
Memory modules and cards
Microcircuits
Microwave passive products
Modems
Modular computer systems
Optical modules
Sensors

Industries We Serve

We serve a diverse range of industries that are increasingly turning to supply-chain outsourcing as their use of technology expands.

PERCENTAGE OF FISCAL 2002 SALES

Semiconductors and Testing 1.5%
Automotive 1.8%
Other 4.7%
High-End Consumer Products 3.4%
Workstations 4.8%
Network Equipment 26.2%
Mainframes and Servers 4.9%
Computer Peripherals 5.7%
Mobile Communications 10.4%
PCs/Notebooks 17.7%
Telecommunications 18.9%

Business Units

Technology Solutions
FISCAL 2002 SALES:
$860 million

Technology Solutions offers a wide range of memory and I/O products, and embedded boards and systems that form technology building blocks to help customers accelerate product time to market. Anchored by our SMART Modular Technologies and Force Computers subsidiaries, Technology Solutions provides the EMS industry's strongest modular product suite, and embedded systems design and manufacturing services.

MicroSystems
FISCAL 2002 SALES:
$306 million

Solectron MicroSystems offers industry-leading design, engineering and manufacturing experience in advanced electronic components, subsystems and systems. Our extensive offering of products and services includes microcircuits, sensors, mechatronics, microwave passive products, frequency products and low temperature co-fired ceramic (LTCC) packaging technology. The automotive, aerospace, defense, telecommunications and robotics industries rely on our products and services to enable the increasingly complex electronic components in their products to communicate.

Global Operations
FISCAL 2002 SALES:
$10,287 million

At the center of Solectron's supply-chain services is Global Operations. Built on world-class pre-manufacturing, manufacturing and fulfillment capabilities, Global Operations provides services such as design, engineering, test development, prototyping and new product introduction to ensure that a customer's product moves smoothly and quickly into volume production. Our advanced manufacturing technology processes and failure analysis and test capabilities drive our customers' products to market faster, cheaper and with Baldrige award-winning quality.

Global Services
FISCAL 2002 SALES:
$823 million

Solectron Global Services offers the largest, most complete array of post-manufacturing services in the EMS industry. Designed to support products from the time they are put into service until they are removed from the market, our services range from product repair and recycling to call-in centers that provide end-customer help desk support and customer relationship management. Through these services, we provide value by offering post-manufacturing services faster and at a lower cost, while enhancing our customers' brands with their end-users.

Automotive	Communications	Computing	Consumer Electronics	Industrial
ABS and airbag control modules	Cellular infrastructure equipment	Mainframe computers	Cellular handsets	Home appliance electronic controls
Car radio navigation systems	Core and edge routers, and Ethernet switches	PCs and notebooks	Game consoles	Process automation equipment
Engine and ignition control modules	DSL and cable broadband equipment	Point-of-sale systems	PDAs	Security control systems
Pressure sensors	Optical DWDM and SONET equipment	Servers	Personal video recorders	Semiconductor fabrication equipment controls
Switches, actuators and body electronics	Telephone switching and PBX equipment	Storage systems	Set-top boxes	Surveying handhelds
		Workstations	Wireless data modems	Test and measurement instruments and ATE