

ARROW ELECTRONICS, INC. 50 MARCUS DRIVE MELVILLE, NY 11747-4210 www.arrow.com



ARROW ELECTRONICS, INC.
ANNUAL REPORT 2002

## GLOBAL NETWORK

ANNUAL REPORT 2002

#### ARROW AMERICAS

## Countries

Argentina Brazil Canada Mexico U.S.A.

Employees 7,000
Sales locations 82
Distribution centers 6



#### ARROW EUROPE

### Countries

Austria France
Belgium Germany
Czech Republic Greece
Denmark Hungary
England Ireland
Estonia Israel
Finland Italy

Netherlands Norway Poland Portugal

S Sweden Switzerland Turkey

Slovenia South Africa Spain

Employees 3,700
Sales locations 74
Distribution centers 8



## ARROW ASIA/PACIFIC

## Countries/Territories

Australia Philippines
China Singapore
Hong Kong South Korea
India Taiwan
Malaysia Thailand

New Zealand

Employees 1,000
Sales locations 37
Distribution centers 7



## POWERING THE SUPPLY CHAIN

ANNUAL REPORT 2002

Arrow Electronics is one of the world's leading electronic components distributors, powering the global electronics manufacturing supply chain with products and services. Arrow connects the technological solutions of more than 600 suppliers to the product development and production needs of more than 150,000 customers. With 193 sales locations and 21 distribution centers in 40 countries and territories, Arrow provides integrated design, materials management, and logistics support to customers and suppliers across the globe and across the full range of their design, development, and manufacturing activities.

Despite the challenges created by the industry's prolonged downturn, Arrow has continued to expand its offerings across the supply chain, while controlling costs and improving working capital utilization and processes. As a result, Arrow has remained profitable and has generated more than \$2.2 billion in free cash flow since the downturn began in 2001. During 2002, the company used this strong cash position to fund the early retirement of bonds due in 2003, further reducing the company's debt. Arrow ended 2002 with a stronger balance sheet and more than \$690 million in cash and short-term investments to fund future sales growth and acquisitions.

(In	thousands	ovcont	nor	chara	datal
IIII	unousanus	except	per	Silare	uala)

For the year	2002	2001*	2000
Color	67 200 454	¢0.407.202	¢42.065.292
Sales	\$7,390,154	\$9,487,292	\$12,065,283
Operating income	167,530	152,670	773,193
Income (loss) from			
continuing operations	12,087	(75,587)	351,934
Income (loss) per share			
from continuing operations			
Basic	.12	(.77)	3.64
Diluted	.12	(.77)	3.56
At year-end			
Total assets	\$4,667,605	\$5,358,984	\$7,604,541
Shareholders' equity	1,235,249	1,766,461	1,913,748
Common shares outstanding	99,983	99,858	98,411

The disposition of the Gates/Arrow operations in May 2002 represents a disposal of a "component of an entity" as defined in Financial Accounting Standards Board (FASB) Statement No. 144. Accordingly, 2001 and 2000 amounts have been restated to exclude Gates/Arrow.

1

<sup>\*</sup> Operating income and loss from continuing operations include restructuring costs and other special charges and an integration charge associated with the acquisition of Wyle Electronics and Wyle Systems. Excluding these charges, operating income, income from continuing operations, and income per share from continuing operations on a basic and diluted basis would have been \$336.7 million, \$75.2 million, \$.76, and \$.75, respectively.

## TO OUR SHAREHOLDERS

ANNUAL REPORT 2002

The industry recession that began in 2001 continued through 2002, making this the longest and most severe downturn in our industry's history. While our business has always been cyclical, this is one of the few times that an industry downturn and a global recession have occurred simultaneously. The general economic malaise, combined with low component demand and pricing pressures, reduced overall revenues in the electronic components industry to levels not seen since the mid-1990s.

Due to these conditions, Arrow Electronics posted 2002 sales of \$7.4 billion from continuing operations, a 22 percent decline compared to sales in 2001 and a 39 percent decline compared to our sales at the height of the last cycle in 2000. Despite this steep drop in sales, Arrow remained profitable on an operating basis, with income from continuing operations of \$12.1 million and earnings per share of \$.12 on a diluted basis.

Throughout the year, we continued to focus on improving our inventory position and on process improvements and cost-control initiatives. As a result, Arrow generated close to \$620 million in free cash flow, bringing the total free cash flow generated to more than \$2.2 billion since the downturn began. During 2002, we took advantage of our strong cash position to fund the early retirement of bonds due in 2003, further reducing our debt. We closed the year with more than \$690 million in cash, ensuring the critical inventory purchasing power and the capital to fund receivables during the next upturn in demand, as well as the capital to fund current and future acquisitions.

An increase in demand for our products and services is inevitable as the demand for electronic and computing solutions will only increase over time. Our customers and suppliers create the devices and products that drive technology. Their work spans almost every end-market, from basic industrial controls to complex global satellite systems. Arrow is a pivotal intermediary in the supply chain, providing the products and solutions that bring our suppliers' technology to our customers' design and manufacturing activities. Our goal has been to ensure that we are in the strongest position possible to support their requirements now and in the future.

#### CONSISTENT ADHERENCE TO CORE STRATEGY

While the market and technologies may change, our core mission remains fundamentally unchanged. It revolves around providing the highest level of service in the most cost-effective manner to our more than 150,000 customers and 600 suppliers around the world. Arrow powers the global electronics manufacturing supply chain. We deliver the core components and computer products that our customers need to manufacture their products. We constantly look for ways to increase our offerings across the full span of their product life cycles and to make the supply chain more efficient, reducing the cost of doing business for all of our partners. Our strategy has been, and will continue to be, a services strategy; creating value for our customers and suppliers.

That strategy requires us to participate in those markets where our ability to provide products and value-added services differentiates us and generates acceptable financial returns. During 2002, we examined our role in the commodity computer products business and came to the conclusion that, in this market. customers require fewer value-added solutions and base their buying decisions primarily on price. As a result, in 2002, we sold the Gates/Arrow commodity computer products business. While we exited the commodity business, we continue to serve the computer products markets where our value proposition is integral to our customers' and suppliers' business models. Our Enterprise and OEM Computing Solutions groups in North America provide a full range of solutions, including complex system integrations and configurations. Owing to the strong performance of these businesses, the overall operating profits in our North American Computer Products group increased by 47 percent when compared to 2001.

#### STRATEGIC INVESTMENTS IN SERVICES

Just a few years ago, Arrow's primary offering was the delivery of parts to the receiving department of an original equipment manufacturer (OEM). Today, our web-based information services support customers in the very early technical discovery phase when engineers research technologies for a new product design. Our materials management solutions range from simple materials planning to sophisticated supply chain management

William E. Mitchell joined Arrow in February 2003 as President and CEO and a member of the Board of Directors. Bill brings significant leadership experience to his new role having served as President and CEO of Nashua Corporation and as Chairman, President and CEO of Sequel, Inc. Earlier in his career, Bill spent more than 20 years with Raychem Corporation, where he held a variety of leadership positions in international business management, sales and marketing, and operations. Most recently, Bill was President of the Global Services division of Solectron Corporation, one of the world's leading contract manufacturers and an Arrow global customer. It was there that Bill developed a first-hand understanding of the complexities of global electronics distribution and manufacturing.

## TO OUR SHAREHOLDERS

ANNUAL REPORT 2002

tools that connect our customers to critical partners, global information services, and Arrow's materials management and ordering systems. Beyond the delivery of parts to the production line, our physical value-added services range from component programming to building and configuring a complex system and shipping it directly to the end-customer. Our presence across the entire supply chain has broadened and continues to broaden.

Arrow has traditionally made strategic and selective investments in the infrastructure that support the expansion of our services. In 2002, we increased our semiconductor programming capacity by expanding our Bedford, UK and Penang, Malaysia value-added centers. At our Hong Kong primary distribution center, we increased the square-footage by nearly 40 percent to improve our inventory management capabilities. We also entered the final phase of the expansion of our Pan-European primary distribution center in Venlo, the Netherlands. This facility makes it possible for us to ship products to customers with multiple locations in Europe.

## LOCAL AND GLOBAL SUPPORT

Since 1985, when Arrow led the industry in expanding its presence outside of North America, our goal has been to position Arrow to serve customers and suppliers in the local markets in which they choose to do business. Investing in acquisitions and expansion in local markets has been a core part of our strategy. During 2002, we completed the acquisition of ADECOM, a connector distributor based in Italy. As we entered 2003, we announced yet another acquisition, the purchase of the electronic components division of Pioneer-Standard in North America. Combining this business with our North American Components group will result in increased sales, greater operating leverage, and improved value-added capabilities. We are confident that it will also add to our earnings in the first full year following the combination.

Beyond supporting our local customers and suppliers, we now have many customers and suppliers who require integrated support across multiple geographies. Today it is not unusual

for an OEM to design a product in one country, produce the prototype in another country, and then transfer volume manufacturing to a third location. To capture more business from cross-market customers, we launched the Global Business Conversion group (GBC). Leveraging Arrow's vast IT and data resources, this team provides advance information to local sales teams when production is planned for their locations. GBC works closely with our suppliers and the Arrow sales and logistics teams to coordinate the quoting and inventory resources required to provide seamless service across multiple

#### OUR PEOPLE MAKE THE DIFFERENCE

Daniel W. Duval stepped into the role of Chairman and interim CEO following the resignation of Arrow's CEO and the planned retirement of Stephen P. Kaufman, Arrow's Chairman and former CEO. During the transition period, Steve agreed to return to Arrow full-time, serving as our interim CEO until his retirement in September 2002. Our search for a CEO was successfully completed with the February 2003 appointment of William E. Mitchell as President and Chief Executive Officer and a member of Arrow's Board of Directors. Dan Duval will continue to serve as Arrow's Chairman.

Both of us want to take this opportunity to thank Steve for his counsel throughout our transition. It is a testament to the strength of the senior management team that Steve assembled that our company has managed to remain profitable on an operating basis, despite the challenges of the past two years. As a result of their efforts, and the hard work of all our employees, Fortune magazine has for the sixth time recognized Arrow Electronics on its list of America's most admired companies.

We also want to take this opportunity to thank the more than 11,000 employees worldwide who make up the Arrow family. They dedicate their time, talent, and energy to delivering the support that our customers and suppliers expect today and to creating the new services they will need for tomorrow.







Dail Shal

# SERVING CUSTOMERS AND SUPPLIERS THEN AND NOW

Since the late 1960s, advances in electronic technology have led to the manufacture of a wide array of products, ranging from the microwave oven to complex satellite systems. Arrow's suppliers have developed the key devices that drive technology, and Arrow's customers have used that technology to create the products that are now an integral part of our daily lives. Since the first microprocessor was launched in the early 1970s to the mid-1980s, when electronics manufacturing became the largest manufacturing industry in the United States, electronic technology has replaced much of what was once manual or mechanical. Electronic controls for industrial machines have led to dramatic improvements in productivity and quality. Medical imaging systems facilitate the early detection of diseases. Advances in telecommunications have connected people to information and to each other across the globe.

Throughout the evolution of new technologies, Arrow Electronics has been a pivotal intermediary between the manufacturers of components and computer products and the customers who use those products to design and manufacture electronic products and systems. As the industry has evolved, so have the solutions that Arrow offers. In the early 1970s, the main role of electronic components distribution was inventory management for customers and sales support for suppliers at the local level. With the computing and electronics boom of the 1980s, demand for justfor products outside of the North American market. In 1985, Arrow was the first North American electronic components distributor to establish a presence outside of the Americas. In the 1990s, the faster pace of new product launches and shorter product life cycles increased the need for materials management and physical value-added services. As the industry entered the new millennium, complex information needs, sophisticated supply chain management strategies, and new approaches to manufacturing drove greater demand for products and services at every point of a customer's product life cycle.

## ACROSS THE SUPPLY CHAIN

Arrow Electronics has led the industry in developing solutions to power the electronics manufacturing supply chain. One powerful example of a "design-to-delivery" solution is the growth of systems integration and configuration services offered by Arrow's North American Computer Products group (NACP). Today, Arrow is managing almost every aspect of the supply chain for several large OEMs. A typical solutions model starts from the moment the OEM receives an order from its end-customer and immediately transmits that order to Arrow's system. Arrow's materials planning programs have anticipated the order, and have all the necessary computer products, components, and system enclosures in inventory and ready for the build. The Arrow computing solutions integration team then configures and tests the system, shipping the completed product to the OEM's end-customer anywhere in the world. The OEM designing and selling the system essentially owns the completed product for only a matter of minutes just prior to shipment. Arrow may also collect age, Arrow NACP builds and ships in excess of 10,000 sub-systems and completed systems each month for OEMs in a wide range of technology industries.

#### ANYWHERE IN THE WORLD

Since 1985, Arrow has led the industry in global expansion, and Arrow now has more than 200 sales locations and distribution centers in 40 countries and territories to serve customers and suppliers according to local practices, languages, and customs. Today, the emergence of large global manufacturers has made it possible for customers to design and develop products in one region, and move production to another region of the world. These cross-market customers require integrated support across regions, as well as local support in design and production markets.

In no other region is this manufacturing migration more evident than in Asia/Pacific. This region is now the world's largest and fastest-growing electronics manufacturing market, a market that accounts for close to 40 percent of the more than \$200 billion in components purchasing worldwide. Much of this

## POWERING THE SUPPLY CHAIN

ANNUAL REPORT 2002

volume comes from cross-market customers moving production to the region. This trend is not limited to the Asia/Pacific market alone, and to respond to the growing need for cross-market solutions, Arrow launched the Global Business Conversion group (GBC). Arrow GBC receives advance information from local sales teams when customers plan to transfer production to other markets. This group works closely with the Arrow teams and the suppliers in the production markets to quote and win business, and to coordinate the inventory resources and logistics services required. With the combination of Arrow's local sales teams across the globe and the GBC team, Arrow stands ready to support the distribution needs of customers and suppliers anywhere in the world where they choose to do business.

#### WITH THE RIGHT PEOPLE AND PROCESSES

Arrow provides the power for the electronics and computing manufacturing supply chain, and Arrow's people provide the power that delivers products and services to more than 150,000 customers and 600 suppliers around the globe. Arrow has the most experienced senior leadership team in electronic components distribution, with each major region led by an executive with an average of more than twenty years tenure in the industry. The depth of talent goes beyond the senior level, with employees who are expert in the technologies and the complex supply chain solutions that speed customers' time to market. Around the world, Arrow employees use their talents to create new solutions and to deliver each day the personalized service that customers and suppliers have come to expect.

#### CONNECTING TECHNOLOGY SOLUTIONS









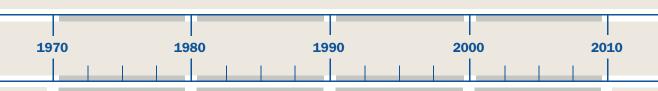
5

the first quarter of 2001. As Arrow enters 2003, the company is well-positioned to respond to the changing needs of customers and suppliers.

#### READY FOR THE FUTURE

Everyday life has been transformed, and will be transformed again, by technology. New technologies and applications will place greater demand on customers and suppliers for innovation and speed. Arrow provides the power for this dynamic and ever-changing supply chain, with the products and services that bring new technological solutions to market faster and more efficiently.

## TECHNOLOGY ADVANCES DRIVE THE INDUSTRY



## **Early 1970s**

sors are developed, containing all of the arithmetic, logic, and control circuitry required to drive a computer's central processing unit.

#### Mid 1970s

Use of microprocessors spreads to applications including household appliances, automobiles, and industrial controls.

## Early 1980s

Computerization of consumer products increases, bringing programmable microwave ovens, TVs, and other

#### Mid 1980s

Microprocessor-based equipment proliferates – from ATMs to automated factory equipment.

## Late 1980s

Use of computers in both personal and industrial applications becomes widespread.

## **Early 1990s**

Advances in optoelectronics technology expand data and voice connectivity.

## Mid 1990s

conversion of consumer devices to electronics continues.

### Late 1990s

networking and use of the Internet expands dramatically.

Wireless technology enables cell phones to satellite systems.

## 2000 and Beyond

Conversion of consumer devices and content to digital technology accelerates.

Continued expansion of electronic commerce drives productivity

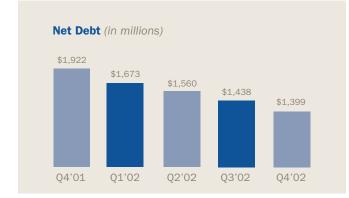
Exponential growth of data traffic continues.

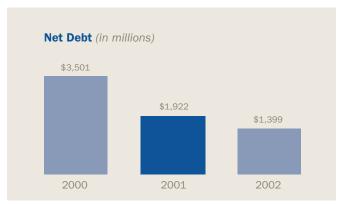
Adoption of portable computing and communication devices becomes widespread.

Wireless communication emerges as the standard

#### FINANCIAL HIGHLIGHTS

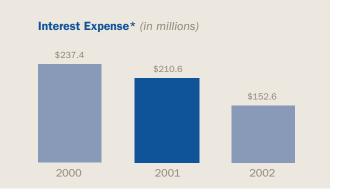
ANNUAL REPORT 2002



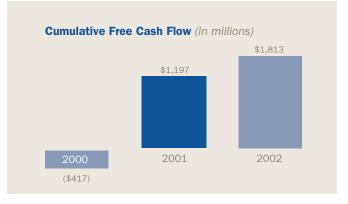


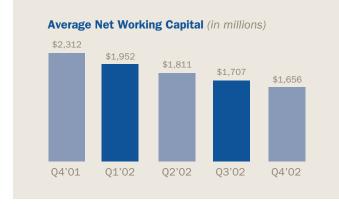
7

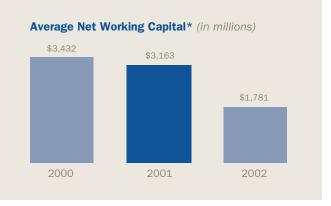












<sup>\*</sup> Pro forma to reflect the full year impact of the acquisition of Wyle Electronics and Wyle Systems and the open computing alliance of Merisel, Inc. in 2000.

## SELECTED FINANCIAL DATA

ANNUAL REPORT 2002

(In thousands except per share data)

For the year	<b>2002</b> (a)(b)	2001 <sup>(c)</sup>	2000	1999 <sup>(d)</sup>	1998
Sales	\$7,390,154	\$9,487,292	\$12,065,283	\$8,325,401	\$7,235,556
Operating income	167,530	152,670	773,193	326,169	328,156
Income (loss) from					
continuing operations	12,087	(75,587)	351,934	115,379	135,024
Income (loss) per share					
from continuing operation	S				
Basic	.12	(.77)	3.64	1.21	1.42
Diluted	.12	(.77)	3.56	1.20	1.39
At year-end					
Accounts receivable					
and inventories	\$2,579,833	\$2,762,679	\$5,419,476	\$2,890,365	\$2,431,774
Total assets	4,667,605	5,358,984	7,604,541	4,483,255	3,839,871
Long-term debt	1,807,113	2,441,983	3,027,671	1,553,421	1,047,041
Shareholders' equity	1,235,249	1,766,461	1,913,748	1,550,529	1,487,319

The disposition of the Gates/Arrow operations in May 2002 represents a disposal of a "component of an entity" as defined in FASB Statement No. 144. Accordingly, 1998 through 2001 amounts have been restated to exclude Gates/Arrow.

- (a) Income from continuing operations and income per share from continuing operations exclude the impact of the company's adoption of FASB Statement No. 142, "Goodwill and Other Intangible Assets," on January 1, 2002. Statement No. 142, which requires that ratable amortization of goodwill be replaced with periodic tests for goodwill impairment, resulted in an impairment charge of \$603.7 million or \$6.05 and \$5.97 per share on a basic and diluted basis, respectively.
- (b) Operating income and income from continuing operations include a severance charge of \$5.4 million or \$3.2 million net of related taxes. Excluding this charge, operating income, income from continuing operations, and income per share from continuing operations on a basic and diluted basis would have been \$172.9 million, \$15.3 million, and \$.15, respectively.
- (c) Operating income and loss from continuing operations include restructuring costs and other special charges of \$227.6 million (of which \$174.6 million is in operating income) or \$145.1 million net of related taxes, and an integration charge associated with the acquisition of Wyle Electronics and Wyle Systems of \$9.4 million or \$5.7 million net of related taxes. Excluding these charges, operating income from continuing operations, and income per share from continuing operations on a basic and diluted basis would have been \$336.7 million, \$75.2 million, \$.76, and \$.75, respectively.
- (d) Operating income and income from continuing operations include a special charge of \$24.6 million or \$16.5 million net of related taxes, associated with the acquisition and integration of Richey Electronics, Inc. and the electronics distribution group of Bell Industries, Inc. Excluding this charge, operating income, income from continuing operations, and income per share from continuing operations on a basic and diluted basis would have been \$350.7 million, \$131.9 million, \$1.39, and \$1.37, respectively.

## **DIRECTORS AND OFFICERS**

ANNUAL REPORT 2002

#### **BOARD OF DIRECTORS**

Daniel W. Duval Chairman, Arrow Electronics, Inc. William E. Mitchell President and Chief Executive Officer, Arrow Electronics, Inc. John C. Waddell Vice Chairman, Arrow Electronics, Inc. Carlo Giersch Chairman of the Supervisory Board, Arrow Electronics Europe and Chief Executive Officer, FLC GmbH John N. Hanson Chairman, President and Chief Executive Officer, Joy Global Inc. Stephen P. Kaufman Senior Lecturer, Harvard Business School and Retired Chairman and Chief Executive Officer, Arrow Electronics, Inc. Roger King Retired President and Chief Executive Officer, Sa Sa International Holdings Ltd. Robert E. Klatell Executive Vice President, Arrow Electronics, Inc. Karen Gordon Mills Managing Director, Solera Capital LLC Barry W. Perry Chairman and Chief Executive Officer, Engelhard Corporation Richard S. Rosenbloom David Sarnoff Professor of Business Administration, Emeritus, Harvard Business School

## CORPORATE OFFICERS

Daniel W. Duval Chairman William E. Mitchell President and Chief Executive Officer Robert E. Klatell Executive Vice President, Investor Relations Peter S. Brown Senior Vice President and General Counsel Betty Jane Scheihing Senior Vice President, Global Operations Wayne Brody Vice President, Legal Affairs Germano Fanelli Vice President Harriet Green Vice President, Worldwide Marketing Michael J. Long Vice President Brian P. McNally Vice President Paul J. Reilly Vice President and Chief Financial Officer Jürgen Saalwächter Vice President Jan M. Salsgiver Vice President Mark Settle Vice President and Chief Information Officer Albert G. Streber Vice President John Tam Vice President Vincent Vellucci Vice President Ira M. Birns Treasurer

#### OPERATING GROUP OFFICERS

Arrow Americas Components

Jan M. Salsgiver President Paul Buckley President, Arrow Contract Manufacturing Services Distribution Group David E. Hoffman Vice President and Managing Director, Latin and South American Components Group Jamie P. McConaty President, Arrow Components Solutions Group James M. Rosenberg President, Arrow Alliance Group Donald A. Schlidt Vice President, Arrow PEMCO Supplier Services Group Eric Schuck President, Arrow/Zeus Electronics Group Albert G. Streber Senior Vice President, Arrow Semiconductor Supplier Services Group Vincent Vellucci President, Arrow/Bell Components Group

Arrow North American Computer Products

Michael J. Long President Joseph D. Burke Vice President and General Manager, Enterprise Computing Solutions Group Michelle M. Kuplic Vice President and General Manager, OEM Computing Solutions Group Stephen Ramsland Vice President, Supplier Services Group

Arrow Electronics Europe

Philippe Djeddah Vice President, European Marketing Germano Fanelli Managing Director, Southern Europe Brian P. McNally Managing Director, Northen Europe Alistair Oag Managing Director, Alliance Europe Jürgen Saalwächter Managing Director, Central Europe

Arrow Electronics Asia/Pacific

John Tam President David Chan Senior Vice President, OEM Sales Richard Huxley Vice President, Alliance Asia