

STMICROELECTRONICS NV  
Form 20-F  
May 24, 2002  
Table of Contents

As filed with the Securities and Exchange Commission on May 24, 2002

---

# SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

---

## FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2001

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number: 1-13546

---

## STMicroelectronics N.V.

(Exact name of registrant as specified in its charter)

Not Applicable  
(Translation of registrant's name into English)

The Netherlands  
(Jurisdiction of incorporation or organization)

Route de Pré-Bois  
ICC Bloc A1215  
Geneva 15  
Switzerland  
(Address of principal executive offices)

---

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class:

Name of each exchange on which registered:

---

Common shares, nominal value 1.04 per share  
Liquid Yield Option™ Notes due September 22, 2009

---

New York Stock Exchange  
New York Stock Exchange

---

**Securities registered or to be registered pursuant to Section 12(g) of the Act:**

**None**

**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:**

**None**

---

Indicate the number of issued and outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

**889,699,181 common shares**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days:

Yes  No

Indicate by check mark which financial statement item the registrant has elected to follow:

Item 17  Item 18

---

**Table of Contents****TABLE OF CONTENTS**

<b><u>PART I</u></b>		3
ITEM 1.	<u>IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS</u>	3
ITEM 2.	<u>OFFER STATISTICS AND EXPECTED TIMETABLE</u>	3
ITEM 3.	<u>KEY INFORMATION</u>	3
ITEM 4.	<u>INFORMATION ON THE COMPANY</u>	17
ITEM 5.	<u>OPERATING AND FINANCIAL REVIEW AND PROSPECTS</u>	45
ITEM 6.	<u>DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES</u>	62
ITEM 7.	<u>MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS</u>	76
ITEM 8.	<u>FINANCIAL INFORMATION</u>	84
ITEM 9.	<u>THE OFFER AND LISTING</u>	84
ITEM 10.	<u>ADDITIONAL INFORMATION</u>	89
ITEM 11.	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	99
ITEM 12.	<u>DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES</u>	103
<b><u>PART II</u></b>		103
ITEM 13.	<u>DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES</u>	103
ITEM 14.	<u>MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS</u>	103
ITEM 15.	<u>[RESERVED]</u>	103
ITEM 16.	<u>[RESERVED]</u>	103
<b><u>PART III</u></b>		104
ITEM 17.	<u>FINANCIAL STATEMENTS</u>	104
ITEM 18.	<u>FINANCIAL STATEMENTS</u>	104
ITEM 19.	<u>EXHIBITS</u>	104
<u>CERTAIN TERMS</u>		105

---

**Table of Contents**

**PRESENTATION OF FINANCIAL AND OTHER INFORMATION**

In this annual report, references to we and us are to STMicroelectronics N.V. together with its consolidated subsidiaries, references to EU are to the European Union, references to the and the euro are to the euro currency of the EU, references to the United States and U.S. are to the United States of America and references to \$ or to U.S. dollars are to United States dollars.

References in this annual report to published industry data are references to data published by Dataquest-Gartner Group, IC-Insights or i-Supply, and Pathfinder Research, Inc. ( Pathfinder ), and references to trade association data are references to World Semiconductor Trade Statistics ( WSTS ). Except as otherwise disclosed herein, all references to our market positions in this annual report are based on 2001 revenues according to published industry data. Certain terms used in this annual report are defined in Certain Terms .

**CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS**

Some of the statements contained in this annual report on Form 20-F that are not historical facts, particularly in Item 4. Information on the Company , are statements of future expectations and other forward-looking statements (within the meaning of Section 27A of the Securities Act) that are based on management s current views and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those in such statements due to, among other factors:

General business and economic conditions in the semiconductor and end-user markets as well as in the various countries and geographic regions and the business segments in which we and our customers operate;

Changes in the operations of our key customers;

Excess manufacturing capacity in the semiconductor industry;

Possible disruption in commercial activities occasioned by major events in the world such as armed conflict or terrorism;

Market demand for our products and changes in customer order patterns and requirements including, but not limited to, order cancellation or rescheduling;

Reduced end-user purchases relative to our expectations;

Competitive factors, such as the timely development of new products, as well as new design and process technologies in line with customer requirements;

Pricing pressures;

Excess or obsolete inventory;

Our ability to implement cost reductions in a timely manner and the success of those actions;

Manufacturing risks and risks resulting from labor unrest caused by political instability;

Our ability to recruit and retain skilled personnel;

Our ability to successfully integrate acquisitions;

Potential future acquisitions which may have a dilutive effect for existing shareholders or may negatively affect our common share price; and

Currency fluctuations and other risks.

Certain such forward-looking statements can be identified by the use of forward-looking terminology such as believes , expects , may , are expected to , will , will continue , should , would be , seeks or anticipates or similar expressions or the thereof or other variations thereof or comparable terminology, or by discussions of strategy, plans or intentions. Some of these risk

## Edgar Filing: STMICROELECTRONICS NV - Form 20-F

factors are set forth and are discussed in more detail in Item 3. Key Information Risk Factors . Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in this annual report as anticipated, believed or expected. We do not intend, and do not assume any obligation, to update any industry information or forward-looking statements set forth in this annual report to reflect subsequent events or circumstances.

**Table of Contents****PART I****Item 1. Identity of Directors, Senior Management and Advisers**

Not applicable.

**Item 2. Offer Statistics and Expected Timetable**

Not applicable.

**Item 3. Key Information****Selected Consolidated Financial Data**

The table below sets forth our selected consolidated financial data for each of the years in the five-year period ended December 31, 2001. Such data have been derived from our consolidated financial statements. Consolidated audited financial statements for each of the years in the three-year period ended December 31, 2001, including the Notes thereto (collectively, the Consolidated Financial Statements), are included in Item 18 of this annual report on Form 20-F.

The following information should be read in conjunction with Item 5. Operating and Financial Review and Prospects and the Consolidated Financial Statements and the related Notes thereto included elsewhere in this Annual Report.

	Year ended December 31,				
	1997	1998(1)	1999(1)	2000(1)	2001(1)
	(in millions except per share and ratio data)				
<b>Consolidated Statement of Income Data:</b>					
Net sales	\$ 3,969.8	\$ 4,210.6	\$ 5,023.1	\$ 7,764.4	\$ 6,303.9
Other revenues	49.4	37.2	33.2	48.8	53.0
Net revenues	4,019.2	4,247.8	5,056.3	7,813.2	6,356.9
Cost of sales	(2,457.4)	(2,623.0)	(3,054.5)	(4,216.9)	(4,047.0)
Gross profit	1,561.8	1,624.8	2,001.8	3,596.3	2,309.9
Operating expenses:					
Selling, general and administrative	(454.3)	(488.1)	(534.2)	(703.7)	(641.4)
Research and development(2)	(610.9)	(689.8)	(836.0)	(1,026.3)	(977.9)
Other income and expenses(2)	23.2	76.5	39.9	(83.6)	(6.1)
Impairment and restructuring charges					(345.5)
Total operating expenses	(1,042.0)	(1,101.4)	(1,330.3)	(1,813.6)	(1,970.9)
Operating income	519.8	523.4	671.5	1,782.7	339.0
Net interest income (expense)	(2.6)	8.7	35.6	46.7	(13.0)
Equity in loss of joint ventures					(4.8)
Income before income taxes and minority interests	517.2	532.1	707.1	1,829.4	321.2
Income tax expense	(113.0)	(120.4)	(157.2)	(375.1)	(61.1)
Income before minority interests	404.2	411.7	549.9	1,454.3	260.1
Minority interests	2.4	(0.6)	(2.6)	(2.2)	(3.0)
Net income	\$ 406.6	\$ 411.1	\$ 547.3	\$ 1,452.1	\$ 257.1

Edgar Filing: STMICROELECTRONICS NV - Form 20-F

Earnings per share (basic)(3)	\$ 0.49	\$ 0.49	\$ 0.64	\$ 1.64	\$ 0.29
Earnings per share (diluted)(3)	\$ 0.48	\$ 0.48	\$ 0.62	\$ 1.58	\$ 0.29
Number of shares used in calculating earnings per share (basic)	834.6	845.1	859.1	885.7	893.3
Number of shares used in calculating earnings per share (diluted)	839.1	864.3	901.2	936.1	902.0
Ratio of earnings to fixed charges(4)	13.4	12.7	16.3	29.3	3.8
Dividends per share(3)	\$	\$	\$ 0.03	\$ 0.03	\$ 0.04

**Table of Contents****Consolidated Balance Sheet Data (end of period):**

Cash, cash equivalents and marketable securities(1)	\$ 702.2	\$ 1,100.7	\$ 1,823.1	\$ 2,330.9	\$ 2,444.2
Working capital(5)	443.5	855.1	398.5	372.5	555.4
Total assets	5,445.7	6,434.0	7,930.3	11,880.5	10,797.5
Short-term debt (including current portion of long-term debt)	424.6	191.2	123.2	141.6	129.3
Long-term debt (excluding current portion)(1)	356.4	755.8	1,348.5	2,700.5	2,771.5
Shareholders' equity(1)	3,307.4	4,083.3	4,563.9	6,124.6	6,074.7
Capital stock(6)	2,004.9	2,232.3	2,508.0	2,823.6	2,978.3

**Consolidated Operating Data:**

Capital expenditures(7)	\$ 1,035.4	\$ 947.3	\$ 1,347.5	\$ 3,327.5	\$ 1,699.8
Net cash provided by operating activities	983.8	1,012.5	1,469.3	2,422.8	2,052.0
Depreciation and amortization(7)	608.1	704.0	806.8	1,108.2	1,320.2

- (1) On November 16, 2000, we issued \$1,480.0 million initial aggregate principal amount of zero-coupon unsubordinated convertible notes, due 2010, for net proceeds of \$1,457.8 million. On September 22, 1999, we completed an equity offering of 8,970,000 shares of capital stock at \$24.88 per share (adjusted for the 3-for-1 stock split) for net proceeds of \$216.8 million. On September 22, 1999, we also completed a debt offering of \$720.9 million initial aggregate principal amount of zero-coupon convertible Liquid Yield Option Notes, due 2009, for net proceeds of \$708.3 million. On June 10, 1998, we completed an equity offering of 18,000,000 shares of capital stock at \$12.03 per share (adjusted for the 2-for-1 stock split in June 1999 and 3-for-1 stock split in May 2000) for net proceeds of \$208.8 million. On June 10, 1998, we also completed a debt offering of \$431.7 million initial aggregate principal amount of zero-coupon convertible Liquid Yield Option Notes (LYONs), due 2008, for net proceeds of \$421.8 million. On April 27, 2001, we issued a redemption notice for the remaining outstanding LYONs, due 2008, which were redeemed and converted into common shares in May and June 2001; the residual aggregate principal amount converted into common shares was \$51.7 million. In 2001, we repurchased 9,400,000 common shares for \$233.3 million and we have reflected these purchases at cost as a reduction of shareholders' equity. The repurchased shares have been designated to fund our most recent employee stock option plan.
- (2) Other income and expenses includes, among other things, funds received through government agencies for research and development expenses, the cost of new plant start-ups, foreign currency gains and losses, gains on sales of marketable securities, the costs of certain activities relating to intellectual property and goodwill amortization. Our reported research and development expenses do not include design center, process engineering, pre-production or industrialization costs.
- (3) All share information has been adjusted to reflect the 2-for-1 stock split effected in June 1999 and the 3-for-1 stock split effected in May 2000. See Notes 2.10, 2.20 and 13 to the Consolidated Financial Statements.
- (4) For purposes of calculating the ratio of earnings to fixed charges, earnings consist of income before income taxes and minority interests, plus fixed charges. Fixed charges consist of interest expenses.
- (5) Working capital is calculated as current assets (excluding cash, cash equivalents and marketable securities) less current liabilities (excluding bank overdrafts and current portion of long-term debt).
- (6) Capital stock consists of common stock and capital surplus.
- (7) Capital expenditures are net of certain funds received through government agencies, the effect of which is to decrease depreciation.

**RISK FACTORS****Risks related to the semiconductor industry*****The semiconductor industry is highly cyclical, and severe downturns have had a negative impact on our results of operations***

The semiconductor industry is highly cyclical and has been subject to significant economic downturns at various times. In 2001, the industry experienced the most severe downturn in its history. These downturns are typically characterized by production overcapacity, accelerated erosion of average selling prices and reduced revenues. When these downturns occur, such as in 1991 and 1996 through 1998, as well as during the current downturn, which started in the third quarter of 2000, our results of operations are adversely affected. In addition, the markets for semiconductors and electronic systems that use semiconductor products are characterized by rapid technological change, leading to more complex and powerful products, evolving industry standards, intense competition, and fluctuations in end-user demand.



Overall, the semiconductor market expanded significantly from 1983 through 2000. According to trade association data, annual worldwide sales of all semiconductor products, referred to as the total available market, or TAM, grew from 1983 through 2000 at an average compound annual growth rate of approximately 15.4%. During the upward industry cycle in the first half of the 1990s, the semiconductor industry experienced significantly increased demand and production capacity constraints, with the TAM growth rate reaching over 40% in 1995. Reflecting the current downturn in the industry, the TAM decreased by approximately 32.0% in 2001 compared to 2000 following an increase of approximately 36.8% in 2000 compared to 1999. In addition, the serviceable

---

**Table of Contents**

available market, or SAM (redefined in 2001 to cover approximately 56% of total TAM and excluding PC motherboard major devices such as microprocessors and their peripherals, random access memories ( RAMs ), read-only memories ( ROMs ) and semicustom ICs and discrete segments such as the small signal transistor market and optoelectronics devices) decreased by approximately 24% over 2000 following an increase in 2000 of 44.5% compared with 1999. In the face of weakening economic conditions, the addition of new capacity and excess inventory held by end-users has given rise to overcapacity and competitive pricing which affected margins. We cannot guarantee that the current downturn will not continue to be severe or that it will not be followed by one or more future downturns or that any future downturns will not also have an even more severe material adverse effect on our results of operations.

***Changes in industry capacity have led to overcapacity and have exacerbated the current industry downturn and may exacerbate future downturns***

In the last ten years, many companies invested in building or improving semiconductor manufacturing capacity. According to published industry data and other industry sources, investment in worldwide semiconductor fabrication capacity totaled approximately \$38 billion in 1997, \$28 billion in 1998, \$33 billion in 1999, \$59 billion in 2000 and \$35 billion in 2001 or approximately 28%, 22%, 22%, 29% and 25%, respectively, of the total available market for such years. In addition to international semiconductor companies, companies specializing in operating semiconductor foundries (companies providing outsourcing capacity on a third party basis) such as Chartered, TSMC or UMC have added significant capacity, particularly in Asia. These capacity additions contributed to an increase of supply over demand during 1997, 1998 and 2001 and to declines in average selling prices and the downturn in the industry during these periods. Recent investments in 2000 and 2001 further increased overcapacity in 2001 and contributed to inventory surpluses, which exacerbated the current downturn. There has also been a shift in existing industry capacity to production of products that compete with our products. We believe that future fluctuations in the rate of industry capacity additions relative to the growth rate in demand for semiconductor products or the transformation of manufacturing facilities to produce products that compete with our products could continue to contribute to fluctuations in average selling prices and affect our results of operations.

***During industry downturns, our high fixed costs adversely impact our results***

In less favorable industry environments, we are driven to reduce prices in response to competitive pressures and we are also faced with a decline in the utilization rates of our manufacturing facilities due to decreases in product demand. Since the semiconductor industry is characterized by high fixed costs, we are not always able to reduce our total costs in line with revenue declines. Reduced average selling prices for our products therefore adversely affect our results of operations. Furthermore, in periods of reduced customer demand for our products, such as in 2001, our fabrication facilities, or fabs, do not operate at full capacity, thereby increasing our fixed costs. Our gross profit margin declined from 38.9% in 1997 to 38.3% in 1998 during difficult market conditions. Our gross profit margin was 39.6% in 1999, 46.0% in 2000 and 36.3% in 2001. In the difficult market conditions encountered during 2001, our gross profit margin was 44.5% in the first quarter, 33.6% in the second quarter, 33.0% in the third quarter and 31.7% in the fourth quarter. Gross profit margin for the first quarter of 2002 was 33.4%, 170 basis points above fourth quarter 2001, but well below the comparable first quarter 2001 period. We cannot guarantee that the current downturn will not continue to affect the loading of our fabs, particularly our more mature plants and consequently our future gross margins. We cannot guarantee that increased competition in our core product markets will not lead to further price erosion, lower revenue growth rates and lower margins in the future.

***Competitive factors in our industry make the competitive environment intense***

We compete on the basis of a variety of factors, and our success depends on our ability to compete successfully in all of the relevant areas. We compete in different product lines to various degrees on the following bases:

price

technical performance

product features

product system compatibility

**Table of Contents**

product design  
availability  
quality  
sales and technical support.

Our ability to compete successfully also depends on factors partially outside of our control, including:

successful and timely development of new products and manufacturing processes  
manufacturing yields  
product availability  
industry and general economic trends  
performance of our key customers in the markets they serve.

***Our results may be adversely impacted by worldwide economic downturns***

Our results are increasingly linked to worldwide economic trends, especially in the United States, the European Union, Japan and Asia. The economic situation in Asia in 1998 had a negative effect on the worldwide semiconductor market and made semiconductor and end-user market requirements more difficult to predict. The deteriorated economic conditions in the United States, the recession in Japan and the slow-down in other markets in which we operate, linked to a declining GDP growth rate and to inventory build-ups by certain customers for semiconductor products, negatively impacted the semiconductor market in 2001 which, following growth of 36.8% in 2000, declined by over 32% in 2001, according to industry sources. We believe that these market conditions have created additional pressures on unit demand and on semiconductor prices in general. The current economic uncertainties have caused our customers to experience reduced demand for their products that include our products and our results of operations have been adversely affected.

***Because we operate in an industry where technology changes rapidly, our products may become obsolete and we may not be able to develop new ones in a timely manner***

The market for our products is characterized by rapidly changing technology. Therefore, our success is highly dependent upon our ability to develop and manufacture increasingly complex new products on a cost-effective basis, to introduce them in the marketplace on a timely basis, and to have them selected for design into future products of leading systems manufacturers. We have committed and intend to continue to commit substantial resources to the development of new products. Because new product development commitments must be made well in advance of sales, however, our new product decisions must anticipate both future demand and the technology that will be available to supply such demand. Delays in developing new products with anticipated technological advances, failure to win new design projects for customers or in commencing volume shipments of new products, may have an adverse effect on our business. In addition, there can be no assurance that new products, if introduced, will gain market acceptance or will not be adversely affected by new technological changes or new product announcements by others.

***Our future success depends in part upon our ability to develop and implement new design and process technologies***

Semiconductor design and process technologies are subject to rapid technological change and require large expenditures for capital investment and research and development. We are developing advanced and standardized design tools for our processes as well as libraries of macrofunctions and megafunctions for many of our products. We are also focusing on improving our concurrent engineering practices to better coordinate design activities and reduce overall time-to-market. If we experience substantial delays in developing new design or process technologies or inefficiently implement production increases or transitions, our results of operations could be adversely affected.

## **Table of Contents**

### ***Loss of key employees could hurt our competitive position***

As is common in the semiconductor industry, success depends to a significant extent upon our key senior executives and research and development, engineering, marketing, sales, manufacturing, support and other personnel. Our success also depends upon our ability to continue to attract, retain and motivate qualified personnel. The competition for such employees is intense, and the loss of the services of any of these key personnel without adequate replacement or the inability to attract new qualified personnel could have a material adverse effect on us. Mr. Pasquale Pistorio, age 66, has been the sole member of our Managing Board and our president and chief executive officer since our formation in 1987. Mr. Pistorio was reappointed at our 2002 annual shareholders meeting for a three-year term expiring at our annual general meeting to be held in 2005. We do not maintain insurance with respect to the loss of any of our key personnel.

### ***Some of our production processes and materials are environmentally sensitive, which could lead to increased costs due to environmental regulations or to damage to the environment***

We are subject to a variety of governmental regulations relating to the use, storage, discharge and disposal of chemicals, gases and other hazardous substances used in our manufacturing processes. We have established proactive environmental policies with respect to the handling of chemicals, gases, emissions and waste disposals from our manufacturing operations, and we have not suffered material environmental claims in the past. We believe that our activities comply with presently applicable environmental regulations in all material respects. All of our facilities have been approved as being in compliance with the EU Eco-Management and Audit Scheme regulations, and have also obtained ISO 14001 certification. We are participating in various working groups set up by the European Commission to propose new legislation regarding the collection, recovery and disposal of electronic equipment, as well as banning the use of lead and some flame retardants in manufacturing electronic components. We intend to proactively implement such new legislation when enacted, in line with our commitment towards environmental protection.

The implementation of any such legislation could adversely affect our manufacturing costs or product sales by requiring us to acquire costly equipment or materials, or to incur other significant expenses in adapting our manufacturing processes or waste and emission disposal processes. Furthermore, environmental claims or our failure to comply with present or future regulations could result in the assessment of damages or imposition of fines against us, suspension of production or a cessation of operations and, as with other companies engaged in similar activities, any failure by us to control the use of, or adequately restrict the discharge of hazardous substances could subject us to future liabilities.

### ***Because we depend on a limited number of suppliers for raw materials, we may experience supply disruptions or pricing pressure***

Our manufacturing operations depend upon obtaining adequate supplies of quality raw materials on a timely basis. Thus, our results of operations would be adversely affected if we were unable to obtain adequate supplies of raw materials in a timely manner or if there were significant increases in the costs of raw materials or problems with the quality of these raw materials. A number of materials are available only from a limited number of suppliers, or only from a limited number of suppliers in a particular region. In addition, we purchase raw materials such as silicon wafers, lead frames, mold compounds, ceramic packages and chemicals and gases from a number of suppliers on a just-in-time basis. Although supplies for the raw materials we use are currently adequate, shortages could occur in various essential materials due to interruption of supply or increased demand in the industry. In addition, suppliers may extend lead times, limit our supply or increase prices due to capacity constraints or other factors. Any such supply limitations or price increases could adversely affect our quarterly or annual results of operations.

### **Risk factors related to our operations**

#### ***Our operating results may vary significantly from quarter to quarter and annually***

Our operating results are affected by a wide variety of factors that could materially and adversely affect revenues and profitability or lead to significant variability of operating results. These factors include, among others, the cyclical nature of the semiconductor and electronic systems industries, capital requirements, inventory management and the availability of funding, competition, new product development and technological change, and manufacturing problems. In addition, a number of other factors could lead to fluctuations in quarterly and annual operating results,

**Table of Contents**

including:

order cancellations or reschedulings by customers

excess inventory held by customers leading to reduced bookings or product returns by key customers

manufacturing capacity and utilization rates

restructuring and impairment charges

changes in distribution and sales arrangements

intellectual property developments

failure to win new design projects

problems with product quality

litigation

possible acquisitions

problems in obtaining adequate raw materials on a timely basis

the loss of key personnel

inability to secure sufficient insurance coverage at acceptable terms, in light of current conditions on the insurance market.

Unfavorable changes in the above and other factors have in the past and may in the future adversely affect our operating results. In addition, during periods of industry overcapacity and declining selling prices, customer orders are not generally made as far in advance of the scheduled shipment date as during periods of capacity constraints, and we have experienced an increasing reliance on orders placed and shipped within the same month. During the current industry downturn, as in those in the past, we are experiencing lower levels of backlog, which in turn reduce our management's ability to forecast production levels, revenues and margins.

***We face intense competition in our core product lines as well as in emerging applications from both large integrated manufacturers and smaller niche companies***

The semiconductor industry is intensely competitive and we face significant competition in each of our product lines. Some of our competitors are large integrated manufacturing groups that compete with us in most of our product lines. A few of these large companies have substantially greater financial and other resources than we do. As a result, these companies may be able to invest more than us in research and development, in the construction of large-scale, advanced, cost-effective manufacturing plants and in the marketing of products, and this may adversely affect our ability to take advantage of potentially profitable business opportunities. Such large competitors include:

Advanced Micro Devices

Agere Systems

Analog Devices

Atmel

Broadcom

Fairchild

Fujitsu

Hitachi

---

**Table of Contents**

IBM

Infineon Technologies

Intel

LSI Logic

Matsushita

Mitsubishi Electric Corporation

Motorola

National Semiconductor

Nippon Electric Company

ON Semiconductor

Philips Semiconductors

Samsung

Texas Instruments

Toshiba

In addition, we are facing increased competition from some of the above companies as well as from smaller niche companies, especially design companies, that specialize in certain product lines and may decide to invest more than we do in research and development and marketing of selected products. These competitors may also use semiconductor foundry companies that produce high volume products and may offer competitive pricing. Such foundry companies such as Chartered, TSMC and UMC have expanded significantly in recent years, particularly in Asia. Other smaller niche competitors include manufacturers of standard semiconductors, integrated circuits for specific applications and fully customized integrated circuits, including both chip and board-level products. In addition, some of our customers have developed their own integrated circuit products and foundry operations.

***Certain of our competitors have increased their focus on products that compete with our products***

In recent years, some of our competitors have redirected their research and development activities, marketing focus and manufacturing capacity toward products that compete with our products. We believe increased focus by our competitors in our core product markets is generating greater pricing pressure, increased competition for market share in the serviceable available market, and a generally more challenging market environment for us. In addition, as new products are developed, we will face significant competition in each of these markets. We may not be able to establish or maintain a strong market position in all of our product markets.

***Because we have our own manufacturing facilities, our capital needs are high compared to competitors who do not produce their own products, and they remain high during industry downturns***

As a result of our strategic choice to maintain control of our advanced proprietary manufacturing technologies to serve our customer base and develop our strategic alliances, we require significant amounts of capital to build, expand, modernize and maintain our facilities. Some of our competitors, however, do not manufacture their own products, and therefore do not require significant capital expenditures for their facilities. Our capital expenditures totaled \$0.9 billion in 1998, \$1.3 billion in 1999 and \$3.3 billion in 2000. Due to market conditions, we reduced our capital expenditure for 2001 from an initial plan of \$2.5 billion to \$1.7 billion. For 2002, we forecast capital expenditures to total approximately \$1.2 billion. We seek to modulate such investments in line with market requirements although we may continue to invest significantly in the coming years as the requirements of new

technologies increase the cost of production equipment. We will continue to monitor our level of capital spending taking into consideration factors such as trends in the semiconductor market and capacity utilization.

The semiconductor industry also requires heavy commitments of funds for research and development necessary to keep up with the rapid pace of technological change and to consistently develop innovative, well performing



**Table of Contents**

and cost-effective products. We intend to continue to increase research and development expenditures in the future, although not necessarily as a percentage of net revenues.

***Our research and development efforts in the field of CMOS process development are dependant on alliances and our business, results of operations and prospects could be materially adversely affected by the failure of such alliances in developing new process technologies in line with market requirements***

On April 12, 2002, we announced that Motorola's semiconductor unit had signed a memorandum of understanding proposing to join a comprehensive research and development alliance among us and Philips to provide 90-nanometer to 32-nanometer chip technologies on 300mm wafers in our Crolles, France research and development center. This announcement followed a previous announcement in March 2002 of an agreement among us, Philips and TSMC which completed an existing agreement between Philips and us concerning joint research and development and the operation of a 300mm pilot line in Crolles. Joint investment is intended to reach \$1.4 billion by 2005 with the stated goal of accelerating the development of future technologies and their proliferation throughout the semiconductor industry. See Item 4. Information on the Company Research and Development. We expect to finalize the terms of this new alliance with Motorola shortly. However, there can be no assurance that we will be able to achieve this objective on satisfactory terms, that our alliances with Philips, Motorola and/or TSMC will enable us to effectively develop new technologies which meet customer demands, or that our operations will not be adversely affected by unforeseen events and the sizeable risks related to the development of new technologies, including unforeseen extra costs, which could materially adversely affect our business, results of operations and prospects.

***We could need additional funding in the coming years***

At December 31, 2001, we had a negative net financial position (total debt net of cash, cash equivalents and marketable securities) of \$456.6 million. The cost of new manufacturing facilities is increasing due to the requirements of advanced sub-micron facilities and technologies as well as the migration from 200mm wafer to the new, more complex 300mm wafer manufacturing equipment. In addition, if we proceed with acquisitions, we may incur additional indebtedness, which could increase our interest costs and adversely affect our results. In such circumstances, we may need to issue additional debt or equity, or both.

***Our manufacturing processes are highly complex, costly and potentially vulnerable to impurities and disruptions that can significantly increase our costs and delay product shipments to our customers***

Our manufacturing processes are highly complex, require advanced and increasingly costly equipment and are continuously being modified in an effort to improve yields and product performance. Impurities or other difficulties in the manufacturing process can lower yields, interrupt production or result in losses of products in process. As system complexity has increased and sub-micron technology has become more advanced, manufacturing tolerances have been reduced and requirements for precision have become even more demanding. Although in the past few years we have significantly enhanced our manufacturing capability in terms of efficiency, precision and capacity, we have from time to time experienced production difficulties that have caused delivery delays and quality control problems, as is common in the semiconductor industry. We cannot guarantee that we will be able to increase the capacity, efficiency or precision of our manufacturing capabilities in the future to the same extent as in the past. We might also experience production difficulties in the future. In addition, during past periods of high revenue growth for us, our manufacturing facilities have operated at high capacity, which has led to production constraints.

As is common in the semiconductor industry, we have, from time to time, experienced difficulty in ramping up production at new facilities or effecting transitions to new manufacturing processes. As a result, we have suffered delays in product deliveries or reduced yields. In the future, we might face:

construction delays

delays in ramping up production at our new facilities or on our new lines, in upgrading or expanding our existing facilities, or in changing our process technologies

interruptions in production

delivery delays

**Table of Contents**

manufacturing problems in achieving acceptable yields

capacity constraints

contamination or fires, storms, earthquakes or other acts of nature, for which we may be unable to obtain sufficient insurance coverage on acceptable terms and conditions,

the impact of which is exacerbated during a period of industry constraint.

In addition, our development of fabrication facilities that include 200mm or 300mm capabilities, or which require advanced technologies, has increased the potential for losses associated with production difficulties, imperfections, or other causes of defects. If production is interrupted at a manufacturing facility, we may not be able to shift production to other facilities on a timely basis or customers may decide to purchase products from another supplier. In either case the loss of revenues and impact on our relationships with our customers could be significant. Our operating results could also be adversely affected by the increase in fixed costs and operating expenses related to increases in production capacity if revenues do not increase commensurately.

***We may face overcapacity and obsolescence in some of our older fabrication facilities that may lead to plant closures, impairments and inventory write-offs***

In a period of market downturn, we may face overcapacity issues, particularly in our older fabrication facilities that use mature process technologies. Like other semiconductor manufacturers, we could have mature fabrication facility capacity being only partially used, which may affect our cost of operations. These considerations led us to record an asset impairment and restructuring charge of \$296.3 million in the second quarter 2001, with respect to certain of our more mature 150mm wafer fabs as well as to announce and complete the closing in 2001 of our wafer fab manufacturing facility in Ottawa, Canada. During the third quarter of 2001, we also initiated a plan for the closure of our plant in Rancho Bernado, California, which was completed in April 2002, resulting in an additional asset impairment charge of \$23.3 million recorded in 2001. We are continuously reviewing our strategy with respect to our more mature 150mm wafer fabs in order to maintain flexibility and efficiency through difficult market conditions. We announced on January 22, 2002 that without the expected pickup in demand and/or pricing during 2002, we could incur further impairment and restructuring charges with respect to our more mature 150mm fabs in 2002. Further actions may include the sale, wafer production curtailment or closure of other similar facilities. In addition, in the second quarter 2001, we recorded a special inventory charge for obsolescence of \$70.7 million in cost of sales due to significant cancellations of customer orders that resulted in unuseable quantities of work in process and finished goods inventories. If we are unable to simultaneously and proportionately cut our manufacturing costs, or make other necessary savings in due time, our cost of operations could be adversely affected in the future.

***If our outside wafer suppliers fail to perform, this could adversely affect our ability to exploit growth opportunities***

In order to meet anticipated requirements for high-speed complementary metal-oxide silicon ( HCMOS ) wafers, we have used outside suppliers, or foundries, for the supply of up to 15% of our requirements for these wafers. We do not intend to increase our reliance on front-end manufacturing through external foundries beyond this level. In fact, in 2001, in a period of market downturn, our reliance on such suppliers significantly decreased. However, when our markets grow, we may face capacity constraints and we expect to continue to rely on third-party wafer suppliers without having the same degree of management control and supervision over their operations as we do over our own. If these suppliers experience manufacturing difficulties, delays, or reduced yields, our results of operations and ability to satisfy customer demand could suffer. In addition, purchasing rather than manufacturing these products may adversely affect our gross profit margin if the purchase costs of these products are higher than our own manufacturing costs.

***Our common share price and operating results may be negatively affected by potential acquisitions***

Our growth to date has primarily been organic. In 1999, however, we made three acquisitions: the Peripheral Technology Solutions group from Adaptec for a purchase price of approximately \$72 million, Vision Group plc for a purchase price of approximately \$41 million and Arithmos for a purchase price of approximately \$42 million. In 2000, we acquired from Nortel Networks its semiconductor business including a 150mm manufacturing facility located in Ottawa, Canada, for a purchase price of approximately \$60 million. In May 2001,

**Table of Contents**

we announced the closure of this facility, which was completed by the end of 2001. In September 2000, we acquired the assets and business of Waferscale Integration, Inc. for approximately \$78 million. In December 2000, we acquired Portland Group Inc. (PGI), a vendor of compilers and software development tools to the high-performance parallel computing market, for approximately \$18 million. In March 2001, we acquired Ravisent's consumer electronics business for approximately \$56 million. In July 2001, we closed the purchase of a software design center in Prague, Czech Republic from Veridicom Inc., involving the acquisition and licensing of intellectual property for fingerprint biometric security products, for approximately \$4 million. On April 15, 2002, we announced the acquisition of Alcatel Microelectronics SA, an affiliate of Alcatel SA, for approximately 390 million (approximately \$351 million) and a cooperation agreement for the joint development of DSL chip-sets that will also be made available on the open markets. The acquisition announcement was followed by the announcement of an agreement with AMI Semiconductors Inc. (AMIS) for the sale by us to AMIS of Alcatel Microelectronics' mixed-signal business for approximately 70 million (approximately \$63 million). Both transactions remain subject to regulatory approvals and customary conditions to closing of corporate transactions. As a result of the adoption of a new statement by the Financial Accounting Standards Board regarding the accounting to be applied to goodwill and intangible assets subsequent to their initial recognition (FAS 142), to become effective for fiscal years beginning after December 15, 2001, goodwill resulting from certain of these acquisitions may no longer be amortized but may be subject to annual impairment tests to determine their appropriate carrying value.

We may, from time to time, consider making selected additional acquisitions that we believe would complement or expand our existing business. We may pay for these acquisitions with cash, our common shares or both. These acquisitions, if they occur, may have a dilutive effect for existing shareholders and, whether they are paid for in cash or common shares, may negatively affect our common share price. Announcements concerning potential acquisitions could be made at any time.

Acquisitions involve a number of risks that could adversely affect our operating results, including:

- the diversion of management's attention
- the assimilation of the operations and personnel of the acquired companies
- the assumption of potential liabilities, disclosed or undisclosed, associated with the business acquired, which liabilities may exceed the amount of indemnification available from the seller
- the risk that the financial and accounting systems utilized by the business acquired will not meet our standards
- the risk that the businesses acquired will not maintain the quality of products and services that we have historically provided
- the inability to attract and retain qualified management for the acquired business
- our inability to retain customers of the acquired entity
- the risk of goodwill impairment.

There can be no assurance that (a) we will be able to consummate future acquisitions on satisfactory terms, if at all, (b) adequate financing will be available for future acquisitions on terms acceptable to us, if at all, or (c) any operations acquired will be successfully integrated or that such operations will ultimately have a positive impact on our business.

***Our business can be adversely affected by changes in the value of the U.S. dollar***

A material variation in the value of the U.S. dollar against the principal European and Asian currencies which have a material impact on us could result in a favorable impact on our net income in the case of an appreciation of the U.S. dollar, or a negative impact on our net income if the U.S. dollar depreciates relative to these currencies. For example, the appreciation registered by the U.S. dollar in 2000 and 2001 against the principal European and Asian currencies (excluding the Japanese yen, which appreciated compared to the U.S. dollar) resulted in a negative impact on revenues and a favorable impact on operating income for 2001, because of the favorable impact on cost of sales and operating expenses which exceeded the negative impact on net revenues. Isn

**Table of Contents**

addition, the balance sheet impact of translation adjustments has been, and may be expected to continue to be, material from period to period. Our policy is to monitor and cover a portion of our exchange rate exposure, and we manage our operations to mitigate, but not eliminate, the positive or negative impact of exchange rate fluctuations.

***Our controlling shareholders' interests may conflict with investors' interests***

ST Microelectronics Holding II B.V. ( ST Holding II ), a wholly owned subsidiary of STMicroelectronics Holding N.V. ( ST Holding ), currently owns approximately 36.2% of our issued and outstanding common shares and is effectively in a position to control actions that require shareholder approval, including corporate actions, the election of our Supervisory Board and our Managing Board and the issuance of new shares or other securities. As permitted by our articles of association, the Supervisory Board has specified further selected actions by the Managing Board that require the approval of the Supervisory Board.

ST Holding is currently jointly and directly owned by a French shareholder that is indirectly controlled by the French government and an Italian shareholder in whom the Italian government holds approximately 34.2% of the share capital and retains special powers to approve or determine certain corporate actions. The French shareholder, FT1CI, is a holding company for two of our indirect shareholders, Areva Group and France Telecom, each of which are ultimately controlled by the French government. Finmeccanica is an Italian holding company owned by both the Italian Ministry of Treasury, which controls important actions of Finmeccanica due to its significant holding in it, Istituto per la Ricostruzione Industriale-IRI S.p.A. *in liquidazione* ( I.R.I. , the holding company for Italian state-owned industrial and commercial interests) and the public. The Italian Ministry of Treasury has appointed a majority of the members of Finmeccanica's Board of Directors and pursuant to the provisions of its articles of association and Italian law, retains veto rights over certain major transactions involving Finmeccanica. These French and Italian shareholder groups of ST Holding have entered into a shareholders agreement which enables each of them to designate three members of the Supervisory Board and includes provisions requiring the approval of the Supervisory Board of ST Holding for actions by ST Holding, us and our subsidiaries. In December 2001, the French and Italian shareholder groups of ST Holding (Areva Group, Finmeccanica S.p.A. and France Telecom) signed a new shareholders agreement to facilitate the offering of our common shares by France Telecom and Finmeccanica as well as the offering by France Telecom of exchangeable notes, exchangeable into our common shares. The new shareholders agreement provides that for a two-year period, FT1CI (the holding company for the two indirect French shareholders of ST Holding) and Finmeccanica will share equal voting rights with respect to ST Holding and us despite their difference in indirect economic interest in us resulting from the December 2001 common share offering by France Telecom and Finmeccanica and exchangeable note offering by France Telecom. See Item 7. Major Shareholders and Related Party Transactions Shareholders Agreements New Shareholders Agreement .

Furthermore, the new shareholders agreement provides, among other things, that France Telecom intends to dispose of its entire interest in our common shares following the expiration of a 180-day lock-up period which expires in May 2002. It also provides that Areva has both the freedom to dispose of its stake after a 24-month period following the agreement, as well as the possibility of rebalancing its stake to equal Finmeccanica's stake. Finmeccanica sold certain amounts of common shares held, initially at the same time as France Telecom, and has the right to have additional common shares sold during such 24-month period so that it may sell a total number of common shares equal to the amount sold during such 24-month period by France Telecom.

Finally, the new ST Holding shareholders agreement continues the requirement that unanimous approval of the ST Holding shareholders be obtained before the Supervisory Board members can take certain actions notwithstanding the reduction in their indirect ownership interest in us. The actions covered by these provisions include, among other things, any alteration in our authorized share capital, any new issue of shares by us, any merger, acquisition or joint venture agreement to which we are to be a party, and any items on the agenda for our general shareholders meeting. In addition, as is the case with other companies controlled by the French government, certain ministries of the Republic of France may veto any decision taken by the board of directors of FT1CI.

France Telecom and Areva, the shareholders of FT1CI, are parties to a separate shareholders agreement that requires the approval of the board of directors of each such company before members of the Supervisory Board appointed by the group of French shareholders may approve specified actions to be taken by ST Holding, ST Holding II, us or our subsidiaries. See Item 7. Major Shareholders and Related Party Transactions Shareholders Agreements New Shareholders Agreement .

**Table of Contents**

These various requirements for the prior approval of various actions to be taken by us and our subsidiaries may give rise to a conflict of interest between our interests and investors' interests, on the one hand, and the interests of the individual shareholders approving such actions, on the other, and may result in a delay in the ability of our Managing Board to respond as quickly as may be necessary in the rapidly changing environment of the semiconductor industry. In particular, our ability to issue new shares or other securities may be limited by the existing shareholders' desire to maintain their proportionate shareholding, and aggregate shareholding level, at a certain minimum level, such as the 30% percentage threshold that applies to the option agreement relating to preference shares discussed below. Such approval process is, however, subject to the provisions of Dutch law requiring members of our Supervisory Board to act independently in supervising our management.

In addition, France Telecom issued exchangeable notes redeemable by way of exchange for our common shares after January 2, 2004, representing 3.37% of our issued and outstanding common shares in December 2001. The interests of France Telecom as the issuer of the exchangeable notes may not necessarily coincide with our interests.

We may also have contractual and other business relationships with our indirect shareholders and/or their affiliates and may engage in significant transactions from time to time. Although it is anticipated that any such transactions and agreements will be on terms no less favorable to us than we could obtain in comparable contracts with unaffiliated third parties, conflicts of interest may arise between us and our indirect shareholders and their affiliates in a number of circumstances.

***Our shareholder structure and our preference shares may deter a change of control***

On May 31, 1999, our shareholders at the annual general meeting approved the creation of up to 180,000,000 preference shares. Pursuant to the 3-for-1 stock split effected in May 2000, the number of such preference shares has increased to 540,000,000. These preference shares entitle a holder to full voting rights at any meeting of shareholders and to a preferential right to dividends and distributions upon liquidation. On May 31, 1999, in order to protect ourselves from a hostile takeover or other similar action, we entered into an option agreement with ST Holding II, which provides that (taking into account the 3-for-1 stock split of May 2000) up to 540,000,000 preference shares shall be issued to ST Holding II upon its request and subject to the adoption of a resolution of our Supervisory Board giving our consent to the exercise of the option and upon payment of at least 25% of the par value of the preference shares to be issued. Following the most recent decision of our Supervisory Board, the option is contingent upon ST Holding II retaining at least 30% of our issued share capital at the time of exercise. No preference shares have been issued to date. The preference shares, if issued, would have priority with respect to dividends and distributions upon liquidation over the common shares. The effect of the preference shares may be to deter potential acquirers from effecting an unsolicited acquisition resulting in a change of control. In addition, any issuance of additional capital within the limits of our authorized share capital, as approved by our shareholders, is subject to the approval of our Supervisory Board and of the Supervisory Board of ST Holding.

***Substantial sales of our common shares into the market could cause the market price of our common shares to drop significantly***

As of December 31, 2001, 889,699,181 of our common shares were issued and outstanding, not including (i) common shares issuable under our various employee stock option plans or employee share purchase plans, (ii) common shares issuable upon conversion of our outstanding convertible debt securities and (iii) 9.4 million shares repurchased in 2001. Substantial sales of existing shares of our common shares or securities exchangeable into our existing shares, or newly issued shares or convertible debt securities by us, could cause the market price of our common shares to drop significantly. The timing and size of any future primary or secondary offerings will depend upon market conditions as well as a variety of factors.

The shareholders of ST Holding signed a new shareholders agreement on December 10, 2001 that states that France Telecom intends to dispose as soon as possible of its indirect interest in our common shares, while Areva has obtained its freedom to dispose of its stake after a 24-month period from the date of such agreement, as well as the possibility of rebalancing its stake to equal Finmeccanica's stake. The new shareholders agreement provides that Finmeccanica will have the right to sell additional common shares during such 24-month period so that it may sell a total number of shares equal to the amount sold by France Telecom. For a description of these provisions, see Item 7. Major Shareholders and Related Party Transactions Shareholders Agreements New Shareholders Agreement Disposals of Our Common Shares . Under the new shareholders agreement, sales of additional amounts of our

**Table of Contents**

common shares by ST Holding II on behalf of its indirect shareholders will not necessarily affect its relative voting rights as shareholders. It is highly likely that additional sales of our common shares will occur. Any such transaction, or publicity concerning such a potential transaction, could negatively affect the market price of our common shares. See Item 7. Major Shareholders and Related Party Transactions Shareholders Agreements New Shareholders Agreement Disposals of Our Common Shares .

***Disruptions in our relationships with any one of our key customers could adversely affect our results of operations***

We have several large customers, some of whom have entered into strategic alliances with us. As of December 31, 2001, our largest customer was Nokia, which accounted for 19.3% of net revenues, and our top ten customers accounted for approximately 50% of net revenues. We cannot guarantee that our largest customers will continue to book the same level of sales with us that they have in the past. Many of our key customers operate in cyclical businesses that are also highly competitive, and their own demands and market positions may vary considerably. Our customers have in the past, and may in the future, vary order levels significantly from period to period. In addition, approximately 16% of our net revenues were made through distributors in 2001 compared to 18% in each of 2000 and 1999. We cannot guarantee that distributors, or any other customers, will continue to place orders with us in the future at the same levels as in prior periods. If we were to lose one or more of our customers or distributors, or if any other key customer were to reduce its bookings, increase its product returns or fail to meet its payment obligations, our operating results could be adversely affected. If orders are cancelled, we may not be able to resell products previously made or require the customers who have ordered these products to pay for them.

***We depend on patents to protect our rights to our technology***

We depend in part on patents and other intellectual property rights covering our products and their design and manufacturing processes. We intend to continue to seek patents on our inventions relating to product designs and manufacturing processes. The process of seeking patent protection can be long and expensive, however, and we cannot guarantee that we will receive patents from currently pending or future applications. Even if patents are issued, they may not be of sufficient scope or strength to provide meaningful protection or any commercial advantage. In addition, effective patent, copyright and trade secret protection may be unavailable or limited in some countries. Competitors may also develop technologies that are protected by patents and other intellectual property and therefore either be unavailable to us or be made available to us subject to adverse terms and conditions. We may not be able to obtain licenses or other rights to necessary intellectual property on acceptable terms.

***Because patent and other intellectual property litigation is costly and unpredictable, our attempts to protect our rights or to defend ourselves against claims made by others could impose high costs and risks on our business***

Litigation that could demand financial and management resources may be necessary to enforce our patents or other intellectual property rights. Also, we may become involved in costly litigation brought against us regarding patents, mask works, copyrights, trademarks or trade secrets. If we cannot obtain licenses or other intellectual property rights, or if we have litigation expenses or judgments that are contrary to us, our results of operations or financial condition could be hurt. We have from time to time received, and may in the future receive, communications alleging possible infringement of patents and other intellectual property rights of others. We have in the past negotiated broad patent cross-licenses with many of our competitors enabling us to design, manufacture and sell semiconductor products, without fear of infringing patents held by such competitors. As our sales increase compared to those of our competitors, the strength of our patent portfolio may not be sufficient to guarantee the conclusion or renewal of broad patent cross-licenses on terms which do not affect our results of operations. Furthermore, regardless of the validity or the successful assertion of any third-party patent or other intellectual property claims, we could incur significant costs with respect to the defense thereof that could have a material adverse affect our results of operations or financial condition.

***We have benefited from state funding in France and Italy which might become unavailable, and as a result our costs could increase***

Like many other semiconductor manufacturers operating in Europe, we have had the benefit of governmental funding for research and development expenses, industrialization costs (which include some of the costs incurred to bring prototype products to the production stage) and capital investment as well as low-interest financing. As a result of our history, our research and development facilities and manufacturing activities are

## **Table of Contents**

concentrated mainly in France and Italy, and the substantial majority of our state funding has been derived from national and European Union programs in these countries. We have entered into funding agreements with France and Italy, which set forth the parameters for state support to us under selected national programs. These funding agreements require compliance with European Union ( EU ) regulations and approval by EU authorities and annual and project-by-project reviews and approvals.

The EU adopted guidelines in 1995 seeking to limit state aid for research and development activities routinely performed in the normal course of business. We cannot guarantee that we will continue to benefit from state aid for research and development, that such aid will not be revoked or discontinued, or that material aid granted by a government for research and development will not be reviewed or challenged by the EU.

We rely on receiving funds allocated by state governments on a timely basis. However, funding of programs in France and Italy is subject to annual appropriation. If these governments were unable to provide anticipated funding on a timely basis or if existing government-funded programs were curtailed or discontinued, this could have a material adverse effect on our business, operating results and financial condition. From time to time we have experienced delays in the receipt of funding under these programs. As the availability and timing of such funding are substantially outside its control, we may not continue to benefit from such government support, and funding may be delayed from time to time, or sufficient alternative funding may not be available if necessary or any such alternative funding may not be provided on terms as favorable to us as those previously provided. In addition, funding granted to us may be revoked or challenged or discontinued in whole or in part by any competent state or European authority, or competent administrative or judicial body, until the legal time period for challenging or revoking such funding has elapsed.

### ***Because we are a Dutch company subject to the corporate law of The Netherlands, investors might have difficulty protecting their interests in a court of law or otherwise***

Our corporate affairs are governed by our articles of association and by the laws governing corporations incorporated in The Netherlands. The corporate affairs of each of our consolidated subsidiaries are governed by the articles of association and by the laws governing such corporations in the jurisdiction in which such consolidated subsidiary is incorporated. The rights of the investors and the responsibilities of members of our Supervisory Board and Managing Board under Dutch law are not as clearly established as under the rules of some U.S. jurisdictions. Therefore, investors may have more difficulty in protecting their interests in the face of actions by our management, members of our Supervisory Board or our controlling shareholders than investors would have if we were incorporated in the United States. Under our articles of association, when our annual accounts are adopted by the general meeting of shareholders, the members of our Managing Board and Supervisory Board are discharged from liability for their actions during the financial year concerned, unless an express reservation is made by the general meeting of shareholders. This is without prejudice to the provisions of Dutch law, including provisions relating to liability of members of Supervisory Boards and Managing Boards upon bankruptcy of a company pursuant to articles 2:138 and 2:149 of the Dutch Civil Code. Notwithstanding the language in our articles of association, effective the financial year commencing on January 1, 2002, Dutch law no longer allows the automatic discharge of the members of our Supervisory Board and of our Managing Board when our annual accounts are adopted by our shareholders. Therefore, for the financial year commencing on January 1, 2002 and for subsequent financial years, in order to obtain such a discharge, the discharge will be introduced as a separate item on the agenda for our annual general meetings of shareholders.

Our executive offices and a substantial portion of our assets are located outside the United States. In addition, ST Holding II and most members of our Managing and Supervisory Boards are residents of jurisdictions other than the United States and Canada. As a result, it may be difficult or impossible for shareholders to effect service within the United States or Canada upon us, ST Holding II, or members of our Managing or Supervisory Boards. It may also be difficult or impossible for shareholders to enforce outside the United States or Canada judgments obtained against such persons in U.S. or Canadian courts, or to enforce in U.S. or Canadian courts judgments obtained against such persons in courts in jurisdictions outside the United States or Canada. This could be true in any legal action, including actions predicated upon the civil liability provisions of the U.S. securities laws. In addition, it may be difficult for shareholders to enforce, in original actions brought in courts in jurisdictions located outside the United States, rights predicated upon the U.S. securities laws.

We have been advised by our Dutch counsel, De Brauw Blackstone Westbroek N.V., that the United States and The Netherlands do not currently have a treaty providing for reciprocal recognition and enforcement of

**Table of Contents**

judgments (other than arbitration awards) in civil and commercial matters. As a consequence, a final judgment for the payment of money rendered by any federal or state court in the United States based on civil liability, whether or not predicated solely upon the federal securities laws of the United States, would not be directly enforceable in The Netherlands. However, if the party in whose favor such final judgment is rendered brings a new suit in a competent court in The Netherlands, such party may submit to The Netherlands court the final judgment that has been rendered in the United States. If The Netherlands court finds that the jurisdiction of the federal or state court in the United States has been based on grounds that are internationally acceptable and that proper legal procedures have been observed, the court in The Netherlands would, under current practice, give binding effect to the final judgment that has been rendered in the United States unless such judgment contravenes The Netherlands public policy.

*Removal of our common shares from the CAC 40 on Euronext Paris or the MIB 30 on the Borsa Italiana could cause the market price of our common shares to drop significantly*

Our common shares have been included in the CAC 40 index on Euronext Paris since November 12, 1997 and the MIB 30 on the Borsa Italiana since March 18, 2002. However, our common shares could be removed from the CAC 40 or the MIB 30 at any time, and the exclusion or the announcement thereof could cause the market price of our common shares to drop significantly.

**Item 4. Information on the Company****History and Development of the Company**

STMicroelectronics N.V. was formed in 1987 under the name of SGS-Thomson Microelectronics N.V. and resulted from the combination of the semiconductor business of SGS Microelettronica (then owned by Società Finanziaria Telefonica (S.T.E.T.), an Italian corporation) and the non-military business of Thomson Semiconducteurs (then owned by the former Thomson-CSF, now Thales, a French corporation). We were incorporated in 1987, and our length of life is indefinite. We are organized under the laws of The Netherlands, have our corporate legal seat in Amsterdam and our holding company executive offices at De Run 4222, 5503LL Veldhoven, The Netherlands, near Eindhoven, The Netherlands. Our telephone number there is (31-49) 955-0634. Our headquarters and operational offices are located in the vicinity of Geneva Airport at Route de Pré-Bois 20, ICC Bloc A, 1215 Geneva 15, Switzerland. Our main telephone number is (41-22) 929-2929. We also maintain an administrative center at Technoparc du Pays de Gex B.P. 112, 165, rue Edouard Branly, 01637 Saint-Genis Pouilly, France; telephone number (33-4) 5040-2640. Our agent for service of process in the United States is STMicroelectronics, Inc., 1310 Electronics Drive, Carrollton, Texas, 75006-5039; telephone: +1 (972) 466-6000. STMicroelectronics N.V. is our parent company and we also conduct our operations through our consolidated subsidiaries.

For information on our principal capital expenditures and divestitures, see Item 5. Operating and Financial Review and Prospects .

**Business Overview**

We are a global independent semiconductor company that designs, develops, manufactures and markets a broad range of semiconductor integrated circuits ( ICs ), discrete and optoelectronic devices used in a wide variety of microelectronic applications, including automotive products, computer peripherals, telecommunications systems, consumer products, industrial automation and control systems. According to final rankings published by Dataquest-Gartner Group in March 2002, we are the third-largest semiconductor company based on 2001 sales, rising from sixth-largest in 2000. On the same basis, iSupply ranked us second-largest and IC-Insights third-largest in 2001. Based on our 2001 sales, Dataquest-Gartner Group ranked us as the world s third-largest semiconductor supplier in combined revenues from general purpose and application specific semiconductors for all communications system use and total automotive applications. According to iSupply and Databeans Inc., based on 2001 sales, we are the world s largest supplier of Analog ICs. According to Dataquest-Gartner Group, we are the world s leading supplier of EPROM memory and thyristors and the second leading supplier of EEPROM memory and power diodes. We currently offer more than 3,000 main types of products to approximately 800 direct customers. Major customers include Alcatel, Bosch, DaimlerChrysler, Delco, Echostar, Ericsson, Gemplus, Hewlett-Packard, Marelli, Matsushita, Nokia, Nortel Networks, Pace, Philips, Pioneer, Samsung, Schlumberger, Scientific Atlanta, Seagate Technology, Siemens, Sony, Thomson Multimedia and Western Digital. We also sell standard products through global distributors, including Arrow Electronics, Avnet Inc. and Eurodis.



## Table of Contents

We offer a diversified product portfolio and develop products for a wide range of market applications to reduce our dependence on any single product, application or end market. Within our diversified portfolio, we have focused on developing products that leverage our technological strengths in creating customized, system-level solutions with high-growth digital and mixed-signal content. Products include differentiated ICs (which we define as being our dedicated products, semicustom devices and microcontrollers) and analog ICs (including mixed-signal ICs), the majority of which are also differentiated ICs, as well as certain Flash products which are sold for specific applications and to particular customers. As a leading provider of differentiated ICs, we have developed close relationships with customers, resulting in early knowledge of their evolving requirements enabling us to increase the penetration of our standard products. Differentiated ICs, which are less vulnerable to market cycles than standard commodity products, accounted for approximately 66% of our net revenues in 2001 compared to approximately 63% in each of 1999 and 2000. We also target applications that require substantial analog and mixed-signal content and can exploit our system-level expertise. Analog ICs accounted for approximately 51% of our 2001 net revenues compared to approximately 49% in 2000 and 51% in 1999, while discrete devices accounted for approximately 10% of our net revenues in 2001 compared to approximately 10% in 2000 and 12% in 1999.

Our products are manufactured and designed using a broad range of manufacturing processes and proprietary design methods. We use all of the prevalent function-oriented process technologies, including complementary metal oxide silicon ( CMOS ), bipolar and nonvolatile memory technologies. In addition, by combining basic processes, we have developed advanced systems-oriented technologies that enable us to produce differentiated and application-specific products, including BiCMOS technologies (bipolar and CMOS) for mixed-signal applications, BCD technologies (bipolar, CMOS and diffused metal oxide silicon ( DMOS )) for intelligent power applications and embedded memory technologies. This broad technology portfolio, a cornerstone of our strategy for many years, enables us to meet the increasing demand for system-on-a-chip solutions. Complementing this depth and diversity of process and design technology is our broad intellectual property portfolio that we also use to enter into important patent cross-licensing agreements with other major semiconductor companies.

Our products are organized into the following principal groups:

- Telecommunications, Peripherals and Automotive
- Consumer and Microcontroller
- Memory Products
- Discrete and Standard ICs.

We also have a New Ventures Group that identifies and develops new business opportunities to complement our existing businesses, and a Subsystems Product Group that produces subsystems for industrial and other applications.

The tables below set forth information on our net revenues by product group and by geographic region:

**Table of Contents**

	Year ended December 31,				
	1997	1998	1999	2000	2001
	(in millions)				
<b>Net Revenues by Product Group:(1)</b>					
Telecommunications, Peripherals and Automotive(1)	\$ 1,606.9	\$ 1,855.2	\$ 2,305.5	\$ 3,481.7	\$ 3,031.4
Discrete and Standard ICs(1)	839.5	816.7	927.9	1,213.1	942.5
Memory Products	708.6	659.6	835.9	1,552.9	1,381.5
Consumer and Microcontrollers(1)(4)	738.8	806.3	886.4	1,466.3	895.7
New Ventures Group and Others(2)(4)	125.4	110.0	100.6	99.2	105.8
<b>Total</b>	<b>\$ 4,019.2</b>	<b>\$ 4,247.8</b>	<b>\$ 5,056.3</b>	<b>\$ 7,813.2</b>	<b>\$ 6,356.9</b>
<b>Net Revenues by Geographic Region:(3)</b>					
Europe	\$ 1,753.3	\$ 1,768.9	\$ 1,833.6	\$ 2,629.2	\$ 2,169.0
North America	899.1	937.3	1,156.1	1,843.0	1,160.7
Asia Pacific	1,065.8	1,247.9	1,658.2	2,614.7	2,301.8
Japan	214.5	180.7	239.7	402.4	331.4
Emerging Markets(3)	86.5	113.0	168.7	323.9	394.0
<b>Total</b>	<b>\$ 4,019.2</b>	<b>\$ 4,247.8</b>	<b>\$ 5,056.3</b>	<b>\$ 7,813.2</b>	<b>\$ 6,356.9</b>
	(as a percentage of net revenues)				
<b>Net Revenues by Product Group:(1)</b>					
Telecommunications, Peripherals and Automotive(1)	40.0%	43.6%	45.6%	44.6%	47.7%
Discrete and Standard ICs(1)	20.9	19.2	18.4	15.5	14.8
Memory Products	17.6	15.5	16.5	19.9	21.7
Consumer and Microcontrollers(1)(4)	18.4	19.0	17.5	18.8	14.1
New Ventures Group and Others(2)(4)	3.1	2.7	2.0	1.2	1.7
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Net Revenues by Geographic Region:(3)</b>					
Europe	43.6%	41.6%	36.3%	33.6%	34.1%
North America	22.4	22.1	22.9	23.6	18.3
Asia Pacific	26.5	29.4	32.8	33.5	36.2
Japan	5.3	4.3	4.7	5.2	5.2
Emerging Markets(3)	2.2	2.6	3.3	4.1	6.2
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

(1) In January 1999, we implemented organizational changes to better orient our product groups to end-use applications. As a result, net revenues have been restated for prior periods to reflect these changes. In addition, the former Dedicated Products Group has become the Telecommunications, Peripherals and Automotive Groups, while the former Programmable Products Group has become the Consumer and Microcontrollers Groups.

(2) Includes revenues from sales of subsystems and other products and from the New Ventures Group, which was created in May 1994 to act as a center for our new business opportunities.

(3) Revenues are classified by location of customer invoiced. For example, products ordered by U.S.-based companies to be invoiced to Asia Pacific affiliates are classified as Asia Pacific revenues. Net revenues by geographic region have been reclassified to reflect the creation of Region Five in January 1998 which includes emerging markets such as South America, Africa, Eastern Europe, the Middle East and India. Prior years have been restated to reflect this reclassification. In the fourth

quarter of 2000, Region Five changed its name to become the Emerging Markets region.

- (4) In 2001, we implemented organizational changes to better orient our product groups to end-user applications. These changes affected the Consumer and Microcontrollers Groups and the New Ventures Group and Others. As a result, net revenues have been restated for prior periods to reflect these changes.

### **Strategy**

The key elements of the strategy that guide our performance are set forth below.

*Market share gains driven primarily by organic growth.* Based upon 2001 sales, we have for the first time in our history been ranked third-largest global semiconductor company worldwide. In 1994, when we first became a publicly listed company, Dataquest-Gartner Group ranked us only twelfth among the largest global semiconductor companies worldwide. Our ascendance in the rankings, driven primarily by organic growth, has allowed us to achieve an increased market share of 4.5% in 2001, while at the same time maintaining profitability during the period, strengthening our balance sheet and generating net operating cashflows. In the past, we have, however, made certain targeted acquisitions of assets and intellectual property aimed at enhancing our expertise and presence in our strategic areas of priority. We may, from time to time, continue to make selected acquisitions or targeted

**Table of Contents**

equity investments in companies that we believe would complement or expand our existing business. For example, in May 2002, we announced the acquisition of Alcatel Microelectronics for 390 million (approximately \$351 million) in cash. Furthermore, we may seek to participate in or benefit from the semiconductor industry consolidation that we expect to occur over the next several years. Announcements concerning potential acquisitions may be made at any time. Acquisitions involve a number of risks that could adversely affect our operating results. See Item 3. Key Information Risk Factors Risk factors related to our operations Our common share price and operating results may be negatively affected by potential acquisitions .

*Broad product portfolio.* We offer a diversified product portfolio and develop products for a wide range of market applications to reduce our dependence on any single product, application or end market. Within our diversified portfolio, we have focused on developing products that leverage our technological strengths in creating customized, system-level solutions for high-growth digital and mixed-signal applications. Such products include differentiated ICs (which we define as being our dedicated products, semicustom devices and microcontrollers, as well as certain Flash products which are sold for specific applications and to particular customers) and analog ICs (including mixed-signal ICs), the majority of which are also differentiated ICs. As a leading provider of differentiated ICs, we have developed close relationships with customers, resulting in early knowledge of their evolving requirements enabling us to increase the penetration of our standard products. Differentiated ICs, which are less vulnerable to market cycles than standard commodity products, accounted for approximately 66% of our net revenues in 2001, and 63% in each of 2000 and 1999.

Differentiated ICs help drive our strategic alliances with customers, and in general command greater stability of margins across the semiconductor cycles than standard products. Standard products (including nonvolatile memories, discrete devices, Smartcard ICs, all standard logical and linear ICs and standard flash memories) represented approximately 33% of our net revenues in 2001. Our standard products families (with the exception of flash memories) require less capital investment thereby offering an opportunity to improve our cash flow, and extend the life cycle of our equipment and facilities, since they can continue to use equipment no longer suitable for leading edge products. We consider that this balance between differentiated and standard products represents a strategic contribution to cost effective manufacturing.

*Broad range of process and design technologies.* We intend to continue to utilize our expertise and experience with a wide range of process and design technologies to further develop our capabilities. We are committed to maintaining and, in certain areas increasing, expenditures on core research and development projects in the future as well as continuing to develop alliances with other semiconductor companies and suppliers of software development tools. Technological advances in the areas of transistor performance and interconnection technologies are being developed through our CMOS logic products and semicustom devices. We work, on an ongoing basis, with key suppliers to develop advanced and standardized design methodologies for our CMOS, mixed signals and nonvolatile memory processes as well as libraries of macrofunctions and megafunctions for many of our products, and are focusing on improving our concurrent engineering practices to better coordinate design activities and reduce overall time-to-market. We are also working closely with many of our key suppliers to develop easy-to-use design tools for specific applications. Furthermore, we recently entered into a strategic alliance with a leading manufacturer of photomasks for the development and supply of leading-edge and high-end photomasks in Europe to ensure rapid turn-around of these critical components. Alliances with other semiconductor manufacturers are generally designed both to permit the sharing of the increasing costs and technological risks involved in the research and development of state of the art processes, product architectures and digital cores and to enable a shorter time to market.

*Leading global customer base with focus on strategic alliances.* We work with our key customers to identify evolving needs and new applications and to develop innovative products and product features. We also seek to use our access to key customers as a supplier of application-specific products to expand our position as a supplier across a broad range of products. These alliances allow us and our customers to share certain of the product development risks and give our customers access to our process technologies and manufacturing infrastructure. We have established alliances in each of our key targeted applications, telecommunications, automotive, consumer and computers with customers such as Alcatel, Bosch, Hewlett-Packard, Marelli, Nokia, Nortel Networks, Pioneer, Seagate Technology, Siemens VDO, Thomson Multimedia and Western Digital, among others. In establishing these alliances, we have also sought to maintain a presence in key geographical markets. Our strategic alliances with key customers have been a major growth driver for us over the last few years with sales to those key partners growing at a rate faster than our average rate. In 2001, sales to strategic customers represented close to 47% of total revenues.

*Integrated presence in key regional markets.* We have consistently sought to develop a competitive advantage by building an integrated presence in each of the world's three major economic zones: Europe, Asia and

**Table of Contents**

North America. An integrated presence means having manufacturing, design, sales and marketing capabilities in each region, in order to ensure that we are well positioned to anticipate and respond to our customers' business requirements in local markets. Therefore, we have 200mm front-end manufacturing facilities in Europe (Agrate and Catania, Italy; and Crolles and Rousset, France), in the United States (Phoenix, Arizona) and in Asia (Singapore); the more labor-intensive back-end facilities have been located in Malaysia, Malta, Morocco, Singapore and China, enabling us to take advantage of favorable production costs (particularly labor costs). With major design centers and local sales and marketing groups within close proximity of key customers in each region, we believe we can maintain strong relationships with our customers. We intend to continue to build our integrated local presence in each region where we compete, as part of our efforts to better serve our customers, and to develop an early presence in potential high growth markets such as China, where we have both a back-end facility and a design center, and India, where we have a design center.

*Balanced sales by application in high growth market segments.* We maintain a geographically diverse customer base across a broad range of market applications. We have developed a strong product portfolio serving major application markets including computer peripherals, wireless communications, digital consumer electronics, Smartcards, automotive and power management. While we are consolidating our position in our established high volume businesses (including switching, engine management, car safety, traditional analog TVs, VCRs, monitors and displays, computer peripherals, power and industrial and consumer appliances), we have also been investing research and development and design resources to develop the next generation of high growth applications, such as Smartcards for security telephone, banking and user ID markets, portable computing, digital consumer (DVD, new generations of set-top boxes, digital TV, digital cameras and MP3 digital music players), wireless communications (digital cellular phones), data transport (fiber optic ICs and voice over IP, known as VoIP), Internet (xDSL), new automotive products (car radio multimedia) and new generations of mass storage devices.

*Pioneer in System-on-Chip and application convergence.* Since our inception, we have leveraged our know-how of a broad range of industries to integrate different system functions on a single chip, pioneering the trend towards system evolutions on silicon and superintegration. A modular approach is being utilized to develop options to the main manufacturing processes and blocks of intellectual property; strategic partnerships are the main lever for acquiring the system know-how to be embedded on the chip. We currently supply highly integrated products in all our main applications, and particularly in high volume domains such as hard-disk drives (disk controllers), set-top boxes and digital video drives ( DVD ).

We believe that application convergence built around mobility, connectivity, multimedia, storage and security will be a further significant growth driver for new system on chip products relating to different applications on a single chip. We plan to use our broad range of capabilities, including technology, system know-how, strategic alliances and intellectual property portfolio to continue to address this rapidly developing market and to both innovate and respond to the new end market demand.

*Pervasive TQEM culture.* We are fostering a corporate-wide TQEM culture that defines a common set of objectives and performance measurements for employees in all geographic regions, at every stage of product design, development, production and consignment for all product lines. TQEM in our company is based on five key principles: management commitment, employee empowerment, continuous improvement, management by fact and customer focus. TQEM has become an integral part of our culture and is designed to develop a self-directed work force with a common set of values, objectives and problem-solving processes. Since 1987, we have continually improved average AIQ (electrical) status levels. Most of our manufacturing facilities have been certified to conform to ISO international quality standards and Eco Management and Audit Scheme ( EMAS ). Several major customers, including Bosch, DaimlerChrysler, Hewlett-Packard, Nokia, Sanyo, Sharp and Sony have recognized our commitment to quality and have honored us with quality awards. Also in recent years, several prestigious awards have been accorded to our regional subsidiaries, underscoring our long-standing commitment to business excellence: the prestigious Malcolm Baldrige National Quality Award in the U.S., the Singapore Quality Award, the Moroccan National Quality Award, the EPA Climate Protection Award, the Malaysian Prime Minister Quality Award, and the Malta Quality Award. In 1997 the European Quality Award for Business Excellence in the category of large businesses was awarded to us by the European Foundation for Quality Management. Most recently, we received the EPA Climate Protection Award 2002. These awards illustrate the success of our unified Total Quality and Environmental Management philosophy on four continents.

## Table of Contents

### **Products and Technology**

We design, develop, manufacture and market a broad range of products used in a wide variety of microelectronic applications, including telecommunications systems, computer systems, consumer goods, automotive products and industrial automation and control systems. Our products include standard commodity components, full custom devices, semicustom devices and ASSPs for analog, digital and mixed-signal applications. Historically, we have not produced dynamic random access memory ( DRAMs ) or x86 microprocessors, despite having the necessary IP (intellectual property) to use them as components in System-on-Chip ( SoC ).

In 2001, we had four principal products groups, Telecommunications Peripherals and Automotive, Consumer and Microcontroller, Memory Products and, also, Discrete and Standard ICs. As part of our activities outside the principal product groups, we also have a New Ventures Group, which identifies and develops new business opportunities to complement our existing businesses, and a Subsystem Product Group, which produces subsystems for industrial and other applications. For a breakdown of net revenues by product group and geographic region each of the five years ended December 31, 2001, see Business Overview .

#### ***Telecommunications, Peripherals and Automotive Groups***

The Telecommunications, Peripherals and Automotive Groups ( TPA ) are responsible for the design, development and manufacture of application-specific products using advanced bipolar, CMOS, BiCMOS mixed-signal and power technologies as well as mixed analog/digital semicustom-devices and Micro-Electro-Mechanical System ( MEMS ) products. The Groups offer complete system solutions to customers in several application markets. All products are application-specific standard products ( ASSPs ), full-custom or semicustom devices that may also include digital signal processor ( DSP ) and micro-controller cores.

The Telecommunications, Peripherals and Automotive Groups work closely with customers to develop application-specific products using our technologies, IP (intellectual property), and manufacturing capabilities. The breadth of our customer and application base provides us with a source of stability in the cyclical semiconductor market. The Telecommunications, Peripherals and Automotive Groups particularly emphasize dedicated ICs for automotive, computer peripherals and industrial application segments, as well as for communication, computing and networking application segments.

The Telecommunications Group has three application divisions, and the Peripherals and Automotive Group has four divisions. The Groups also share two support divisions: (i) digital signal processing and microcontrollers cores and (ii) digital and mixed analog/digital semicustom.

The Telecommunications Group has two long-established divisions and recently created a third:

(i) *Wireless Telecommunications Products.* In wireless telecommunications, we focus our product offerings on cellular phones serving the major original-equipment manufacturers, or OEMs , with differentiated ICs. In this market, we have key positioning in energy management, audio CODEC and radio frequency ICs. In addition to our existing product applications, a leading cellphone maker recently chose us to supply a radio frequency solution for dual-mode terminals, using 0.35-micron SiGe technology. We also announced an agreement with TTPCom for the development of GSM and GPRS (2.5G) baseband platform chips for the next generation of mobile handsets and mobile Internet devices based on our ST100 DSP core. In February 2002, we announced a new cooperation agreement with Alcatel for the development of future GSM/GPRS chipsets for mobile phones and other wireless connectivity applications. Under the terms of the agreement, Alcatel has transferred to us its team of mobile phone integrated-circuit designers. We will get access to the know-how and intellectual property developed by this Group and related to GSM/GPRS. The resulting chipsets will be available for the open market. This cooperation also includes a multi-year supply agreement associated with 2.5G chipsets.

(ii) *Wireline Telecommunications Products.* Our wireline telecommunications products are used in telephone sets, modems, subscriber line interface cards (SLiCs) for digital central-office switching equipment and high-speed electronic and optical communications networks. In 2001, we signed an agreement with Huawei Technologies, China's number one telecom equipment manufacturer to jointly develop a key silicon chip for Huawei's SLiCs. We also had important design wins, for high-speed (10 Gbit/sec) chips built in our cost-optimized silicon-germanium (SiGe) technology.

## Table of Contents

In the area of broadband access, we offered a new asymmetrical digital subscriber line ( ADSL ) modem chipset aimed at both desktop and laptop computers that was the first on the market to employ a controller-less design with USB or PCI interface. Pursuing our efforts to support the DMT (Discrete Multi Tone) modulation technique as a worldwide standard for very high-bit rate digital subscriber line or VDSL, we demonstrated working prototypes of our Zipper-DMT VDSL modem technology that combines the very high bandwidth of VDSL with ADSL spectrum compatibility.

In February 2002, we signed an agreement to acquire the intellectual property and product range of Tioga Technologies for Digital Subscriber Line (xDSL) chipsets. These xDSL products include an integrated Asymmetric DSL (ADSL) multi-channel processor for central office applications. When used together with our existing line of advanced analog front-end and power-efficient line drivers, this chipset provides a competitive, compact and power-efficient solution.

In April 2002, as part of our agreement with Alcatel to acquire Alcatel Microelectronics, we announced our intention to enter into a cooperation agreement with Alcatel for the joint development of DSL chip sets that will also be made available to the open market. The new agreement calls for us to become a preferred supplier of Alcatel, thus expanding our long-standing strategic alliance.

(iii) *Wireless Communications Infrastructure Products.* In February 2002, we announced the formation of a new Wireless Communications Infrastructure Products business unit that will develop dedicated infrastructure chip solutions for GSM/GPRS, CDMA and new third-generation telecom standards. We have already developed all of the technologies required for the wireless infrastructure application specific IC (ASIC) market due to our many years of experience in this field. For the digital baseband chips that handle complex digital processing tasks, we have developed the ST100 family of digital signal processor cores. We have already developed other key technologies radio frequency and mixed signal for the demanding wireless terminal market, both areas where our expertise is widely recognized.

The Peripherals and Automotive Group has four divisions:

(i) *Data Storage and Computer Peripherals.* We produce ICs for several data storage applications, specializing in disk drives with advanced solutions for read and write digital channels, controllers, host interfaces, digital power processing and micromachinery. We are actively working on super-integrating these macro-functions into System-on-Chip ( SoC ) solutions.

In addition to delivering first samples of a 0.18-micron-technology hard-disk controller with embedded DRAM and gaining important new design wins for hard-disk drive ( HDD ) preamplifiers and dedicated power devices for high-end and mobile disk drives, we were selected by Quantum Technologies to supply a SoC solution for a new hard-disk drive. Based on our new Super10 DSP enhanced microcontroller core, the new device will also incorporate a hard disk controller, 4Mbits of embedded dynamic random access memory ( DRAM ) and interface functions. We will supply the complete system solution, including firmware. During the fourth quarter 2001, we also achieved three design wins for SoC devices with major hard-disk drive customers.

During the third quarter 2001, we introduced a high-performance MEMS-based (Micro-Electro-Mechanical System) rotational accelerometer for PC and consumer HDD applications. The device makes the drive more resistant to vibration, thereby improving overall read/write speed and disk density.

(ii) *Printers.* We are focusing on inkjet printer components and are an important supplier of pen chips, motor drivers, head drivers, high-performance photo-quality applications and digital color copiers. We are an important partner of Hewlett-Packard for technology development and manufacturing and are currently developing printer SoC platforms. Other notable successes in the printer field included contracts with two other leading printer manufacturers to develop SoC solutions with embedded DRAM for the digital printer engines used in inkjet printers. With these

---

**Table of Contents**

new contracts, we are now the chosen supplier at three out of the four leading manufacturers. In the fourth quarter 2001, we confirmed major design wins with two of the world's leading printer manufacturers, including two designs for CMOS-based digital engines, the processing heart of a printer, and one for a printer-head driver chip, which will be manufactured in our mixed-signal bipolar, CMOS, and DMOS (BCD) process.

(iii) *Audio and Automotive Products.* Our audio products include audio power amplifiers, audio processors and graphic-equalizer ICs. Our automotive products include alternator regulators, airbag controls, antiskid braking systems, ignition circuits, injection circuits, multiplex wiring kits and products for body and chassis electronics, engine management, instrumentation systems and car multimedia. We are currently developing solutions for global positioning systems (GPS) and multimedia in the car.

In 2001, our leading position in the automotive arena was reinforced by the introduction of a new 16-bit automotive-grade microcontroller chip with embedded Flash memory whose performance is guaranteed over the entire automotive temperature range, making it ideal for fast-growing applications such as engine control. In addition, our microcontroller built using 0.18-micron embedded Flash technology was selected by Siemens for a next-generation airbag system. In November 2001, we announced our intention to cooperate on the design and development of new smart power IC products for automotive applications with Delphi Systems. The agreement insures that Delphi will have access to our new BCD process developments.

In the audio field, we achieved a major technical milestone with XM Satellite Radio, the satellite radio broadcaster. By the end of 2001, we had shipped over 200,000 chipsets to manufacturers for the XM radio service in the United States. We announced the development of DSP-based decoder chips for Coding Technologies mp3PRO standard. We also started production of a new family of advanced amplifiers for car radios. A major design win has already been achieved at Visteon for the car radio for the new Fiat Stilo.

(iv) *Industrial and Power Supplies.* We design and manufacture products for industrial automation systems, lighting applications (lamp ballast), battery chargers and switch mode power supplies (SMPS). Our key products are power ICs for motor controllers and read/write amplifiers, intelligent power ICs for spindle motor control and head positioning in computer disk drives and battery chargers for portable electronic systems, particularly mobile telephone sets.

The Group also has two support divisions: (i) digital signal processing and microcontroller cores; and (ii) digital and mixed analog/digital semicustom. These two divisions are centers of excellence to develop key competences in the field of semicustom (digital and analog) as well as in DSP and microcontrollers cores. We are currently developing superintegrated solutions using our broad range of technologies (CMOS, BiCMOS, BCD) and our expertise in microcontrollers/DSP cores, dedicated IC megacells and embedded memory capability.

***Consumer and Microcontroller Groups***

The Consumer and Microcontroller Groups (CMG) are responsible for the design, development and manufacture of microcontrollers, graphics accelerators and application-specific standard products (ASSP) targeted at high-growth digital consumer applications, including digital set-top boxes, Digital Versatile Disk (DVD) players, digital cameras and digital TV.

Through year-end 2000, CMG was organized by system partitionings, with front-end ICs (reception and demodulation of the video signal), back-end ICs (decompression and control of the video signal) and micro cores. In the first quarter 2001, CMG was reorganized by application and it combined the front-end, the back-end and the micro cores activities of each application. Two new divisions have been created: the set-top-box division and the DVD division. CMG also comprises the TV, the Imaging and Display, the Graphics Products and the Microcontroller divisions.

The Consumer and Microcontroller Groups are divided into the Consumer Group and the Microcontroller Group. The Consumer Group is further divided into five divisions: set-top boxes, DVD, TV, Imaging and Display and the Graphics Products.



---

**Table of Contents**
**Consumer Group**

We consolidated our leadership in digital consumer applications on the basis of shipments in 2001, particularly for set-top boxes, DVDs and digital TVs, and we shipped more than 27 million MPEG2 decoder ICs in 2001. In January 2002, we signed a five-year technology agreement with Thomson Multimedia ( TMM ) to expand our strategic partnership in the field of System-on-Chip ( SoC ) for digital consumer applications to bring cost-effective and innovative solutions quickly to market. We have been successfully partnering for a decade in the development of state-of-the-art SoCs and intellectual property for TV, set-top box and DVD products. During the term of the initial agreement, we and TMM pioneered the development of MPEG video decoding. After enabling the launch of the world's first MPEG2 satellite TV service (DirectTV in 1994), both we and TMM have secured a leadership position in our respective markets. According to Dataquest-Gartner Group, we have been the world's largest supplier of MPEG decoder chips for the last three consecutive years and are also the world's largest supplier of differentiated ICs for consumer electronics products such as set-top boxes, TV sets, DVD players and digital cameras.

(i) *The Set-top Box Division.* We continued to expand our product and customer base introducing solutions for set-top boxes with web-browsing and video recording and time-shifting capabilities in 2001. We reinforced the market leadership of our STi5500 (OMEGA) family of set-top box back-end decoders with the introduction of the STi5514. The new device is backward software compatible with the highly successful STi5512, of which more than eight million units have been shipped, while integrating new peripherals and features that further reduce system cost in sophisticated high-volume applications. The STi5514 also allows hard-disk drive (HDD) capability to be easily added to STB designs, paving the way for low-cost PVR (Personal Video Recorder) equipment and similar emerging convergence products that offer features such as pausing and time-shifting of live TV streams and the ability to view one program while recording another. We also announced that the ST40GX1, the 32-bit microprocessor with 2D graphics and audio processing, is fully supported by Microsoft Windows CE 3.0. Windows CE support for the ST40GX1 enables OEMs to build high performance digital set-top boxes and other consumer devices. Coupled with our STi5514 set-top box decoder, the ST40GX1 processor provides an ideal platform for future product development.

We entered into new agreements for expanding our leadership position in digital consumer applications on the basis of sales. Along with Alenia Spazio, a global supplier of satellite systems, we demonstrated a working prototype of a jointly developed technology that will greatly enhance the way consumers receive and enjoy interactive TV and other multimedia services in the home. The technology that we are developing allows consumers to obtain interactive TV, video recording and playback, high-speed Internet, video conferencing and other multimedia services via a single satellite dish and a highly sophisticated but low-cost set-top box. In the cable segment, we announced plans with Microtune to jointly develop set-top box reference designs that feature their complementary digital and radio-frequency silicon technologies. Targeted for worldwide markets, the reference designs are engineered to accelerate the deployment of next-generation cable set-top boxes and residential gateways, while offering customers significant time-to-market, competitive and price/performance advantages.

We signed a collaboration agreement with Philips to develop solutions for applying MHP technology in set-top boxes and digital television sets. We will develop and market pre-integrated solutions of the Philips MHP 1.0x Software Platform and our OMEGA family of single-chip digital set-top box decoder platforms. These turnkey solutions for building advanced digital set-top boxes and integrated digital televisions are aimed to dramatically cut back development and production times for consumer electronics manufacturers seeking to build MHP-compliant digital TV receivers.

(ii) *The DVD Division.* In 2001, following several years of successful cooperation combining Ravisent's DVD software and our OMEGA family of DVD decoder processors, we expanded our ability to provide complete DVD system solutions by acquiring the Consumer Electronics business of Ravisent Technologies. We introduced two System-on-Chip ( SoC ) devices to address the growing mainstream DVD (Digital Versatile Disk) and emerging Audio/DVD markets

**Table of Contents**

for highly integrated audio features and processing capability. The STI5580, an enhanced version of the STI5508 announced in year 2000, and the lower-cost STI5519 integrate advanced audio functions such as a new stereo channel and a strengthened decoding capability for digital home theater systems, including DTS (Digital Theatre System) format. We introduced the L6315, which uses leading-edge 0.18-micron CMOS production technology to integrate all of the functions required in the front end of DVD players, including analog preprocessing, servo control, channel decoding and error correction. Optimized for use with our OMEGA (STI55xx) DVD back-end decoders, the new chip sets allow us to offer a highly-integrated solution for DVD players.

(iii) *The TV Division.* We address both the analog and digital television markets with a wide range of highly integrated ASSPs and application-specific microcontrollers. We introduced the STI7020, the world's most advanced HDTV (high-definition television) decoder IC. The STI7020 brings an unprecedented level of integration, containing multiple-stream MPEG HD/SD video decoding, audio decoding, a powerful 2D/3D graphics subsystem and numerous ancillary functions. We introduced the STV0360, a single-chip COFDM (Coded Orthogonal Frequency-Division Multiplexing) demodulator that includes an integrated high-performance A/D Converter and performs all of the demodulation functions required to extract the MPEG transport stream from the tuner IF output and connects seamlessly to our OMEGA back-end chips. We also introduced a new hardware and software platform that bridges the gap between conventional analog TV and the forthcoming digital TV technology. Called CTV100, the initial platform comprises a two-chip kit (STV2310 and STV3500) and associated software that provides a highly integrated and cost-effective solution for 2H (100Hz or Progressive scan) TV manufacturers. The CTV100 platform leverages the worldwide success of our family of set-top box and DVD chips and paves the way for future families of optimized IDTV (Integrated Digital TV) solutions.

(iv) *Imaging and Display Division.* Our Imaging and Display Division focuses on video camera recorders, monitors and flat-panel displays and image capturing and transmission. In 2001, we introduced a highly integrated digital color microcamera suited for the next generation of cellular telephones, personal digital assistants and other portable communication devices. We announced a new generation of Display-Engine ICs aimed at the rapidly growing markets based on fixed-resolution flat-panel displays. Key applications are desktop LCD monitors and smart panels, LCD projectors, plasma and rear-projection televisions. We announced an agreement to develop driver devices for light-emitting polymer (LEP) displays with Cambridge Display Technology (CDT). CDT has licensed to us certain know-how for the design and development of display driver devices that will be offered to LEP display manufacturers. We signed a letter of intent with Imagination Technologies for the co-development of a mobile multimedia entertainment platform. Our Pocket Multimedia (PMM) platform targets handheld entertainment applications such as audio and video playback and 3D gaming with stringent power-consumption requirements. This platform is conceived to enable OEMs to design cost-effective devices based on a proven set of IP for battery-powered applications and to secure short time-to-volume production.

(v) *Graphic Products Division.* In February 2002, we announced that we are withdrawing from the PC Graphics Accelerator IC market, which accounted for approximately \$15 million of our 2001 revenues.

***Microcontroller Group.***

This group provides competitive, high-volume 8- and 16-bit microcontrollers for all major application segments. This family of products has been developed with a wide portfolio of processes capable of embedding nonvolatile memories such as EPROM, EEPROM and Flash memories. In 2001, we announced the launch of a new embedded-controller platform, known as FIVE, that seamlessly integrates all the benefits of microcontrollers, together with a dedicated architecture, the Decision Processor, oriented to high-level algorithms and a visual programming approach. The new family of Intelligent Controller Units (ICU) provides unprecedented price/performance benefits at low voltage while simultaneously supporting fast time-to-market and easy product enhancement and differentiation in battery-powered devices, domestic appliances, industrial control systems and similar markets that require cost-effective embedded microcontrollers.

**Table of Contents**

Expanding on our cooperation with Hitachi on advanced SuperH reduced instruction set computing ( RISC ) cores, we formed a jointly controlled independent company, SuperH, Inc. In addition to licensing SuperH cores on the open market, SuperH will complete the final development of the 64-bit SH-5 core and take over development of the SH-6 and SH-7 cores. SuperH launched commercial operations in the third quarter 2001. We announced that a microprocessor based on the SuperH™ SH-4 32-bit core is now available in volume. The ST40RA166 runs Windows CE 3.0, Microsoft's real-time embedded operating system for 32-bit connected mobile devices that demand rich applications and services. Windows CE 3.0 offers embedded developers a broad set of capabilities including rich multimedia and connectivity options as well as a comprehensive toolset for quickly and easily developing smart mobile devices.

***Memory Products Group***

The Memory Products Group ( MPG ) designs, develops and manufactures a broad range of semiconductor memory products but does not produce DRAMs.

Our Memory Products Group is organized into the following divisions: (i) Flash memories; (ii) Smartcard products; (iii) EPROMs; (iv) EEPROMs; (v) NVRAM and dedicated memories; (vi) SRAM and (vii) Programmable Systems Memories ( PSM ).

(i) *Flash Memories.* According to published industry data, in 2001, the TAM (total available market) for Flash memories decreased by 28.6% after having doubled in 2000. Our Flash sales increased 5% in 2001 compared to 2000 after having tripled in 2000. According to WSTS, in the fourth quarter 2001, our market share in Flash memories exceeded 10%. This is due to advanced process technologies, partnerships with new customers, new product development and state-of-the-art manufacturing facilities. Flash memories must have many capabilities because they are used in a wide variety of applications, each with different requirements and thus are more comparable to dedicated products than pure standard products. We offer a broad variety of Flash memories, which we sell to customers in different fields, such as wireless telephony, digital consumer, automotive and computer products. For example, we currently supply single voltage (down to 1.8 volt) NOR cell structure Flash memory products up to 64 Mbit to the mobile phone market, and we are now successfully using multi-bit/cell technology. In 2001, we began sampling 64-Mbit devices built in 0.15 micron technology and optimized for cellular phone usage and are currently ramping up volume production. In 2002, we are also beginning to sample 64 Mbit devices built in 0.13 micron technology. In addition, we began ramping up production of our dedicated Flash memories for Firmware Hub BIOS applications, which are now qualified at most PC desktop and notebook manufacturers. Manufacturers and customers also received samples of a new 8-Mbit device for PC Bios applications and 16-Mbit automotive products.

(ii) *Smartcard Products.* Smartcards are card devices containing integrated circuits that store data and provide an array of security capabilities. They are used in a wide and growing variety of applications, including public pay telephone systems, cellular telephone systems and bank cards (primarily in Europe), as well as pay television systems (primarily in the United States, United Kingdom and France). Other applications include medical record applications, card-access security systems, toll-payment secure transactions over the Internet and ID/passport cards applications. In 2001, we introduced a chipset that simplifies the design of contactless Smartcard readers, stimulating growth of new contactless Smartcard applications such as access control, ticketing systems, E-purse and ID cards. In the third quarter 2001, we introduced three new products, including a device that combines large on-chip memory, high-powered cryptographic processing with a contactless communications interface. We have also received the first volume production orders for this device for a Japanese governmental card, one of the world's first uses of smart cards for this type of application. We have also been deeply involved in VISA's initiative to promote Smartcard solutions through the \$1 card initiative.

We are currently developing biometric solutions based on fingerprint recognition. We announced that we are supplying our TouchChip™ biometric hardware for a new laptop computer developed by Samsung. The laptop will contain an integrated TouchChip™ fingerprint sensor and our Protector Suite™ original equipment manufacturer ( OEM ) software, which offers sophisticated and easy-to-

---

**Table of Contents**

use tools for securing computers and protecting private data through the use of robust biometric technology.

We announced another milestone in the security field with Hyundai Smart Technologies for the world's first VSDC (VISA Smart Debit/Credit) Technology Level 3 approved dual-interface multi-application Smartcard. This card is expected to accelerate the migration to chip-based EMV (Eurocard Mastercard Visa) compliant cards with the addition of a contactless interface for new applications, while maintaining an extremely high security level that is recognized worldwide.

(iii) *EPROMs.* We produce a broad range of EPROMs, from 16 Kbit to 32 Mbit. The EPROM market is relatively mature. We have succeeded in reinforcing our market leadership because of our EPROM technology, which has allowed us to build one of the broadest product portfolios currently offered in the market. At the same time, this technology has permitted continuous improvement of manufacturing yields and reduction of die size, giving us an advantageous cost position. Efficient manufacturing in our Singapore assembly plant, together with our sales and distribution channels, has contributed to the exploitation of our technological advantage.

(iv) *EEPROMs.* We offer serial EEPROMs up to 512 Kbit. Serial EEPROMs are the most popular type of EEPROMs and are popular in computer, automotive and consumer applications. Building on our technical prowess and manufacturing know-how, we continue to build on our advantages and intend to work closely with our key customers and strategic allies to identify and develop added-value application-specific memories.

(v) *NVRAM and Dedicated Memories.* We are producing a wide range of nonvolatile RAMs (battery backed-up SRAM) used in computers, industrial and telecommunications equipment. We are also extending our range with new Real Time Clock ( RTO ) and static random access memory ( SRAM ) supervisors' families.

(vi) *SRAM.* We have introduced a range of low power SRAM-products from 256k to 8-Mbit in various voltages. These are aimed primarily at satisfying the memory requirements of wireless applications, as a complement of our Flash offerings, specifically to stack them together with Flash in the same multi-chip package.

(vii) *Programmable System Memories ( PSM ).* Our strategy of developing innovative, differentiated and value-added products allows us to offer configurable memory systems, integrating multiple memory types and control logic.

***Discrete and Standard ICs Group***

The Discrete and Standard ICs Group (DSG) designs, develops and manufactures discrete power devices, power transistors, standard linear and logic ICs, and radio frequency products.

Our discrete and standard products are manufactured using mature technology processes. Although such products are less capital-intensive than our other principal products, we are continuously improving product performance and developing new product features. We have a diverse customer base, and a large percentage of our discrete and standard products are sold through distributors.

(i) *Discrete Power Devices.* We manufacture and sell a variety of discrete power devices, including rectifiers, protection devices and thyristors (SCRs and triacs). Our devices are used in various applications, including telecommunications systems (telephone sets, modems and line cards), household appliances and industrial systems (motor control and power control devices). More specifically, rectifiers are used in voltage converters and voltage regulators, protection devices to protect electronic equipment from power supply spikes or surges, and thyristors vary current flows through a variety of electrical devices, including lamps and household appliances. We offer a highly successful range of standard products built with our proprietary Application Specific Discretes (ASD™) technology, which allows a variety of discrete structures to be merged into a single device optimized for specific applications such as EMI filtering for cellular phones. We have recently started development of electronic devices integrating both passive and active components on the same chip (IPAD: Integrated Passive and Active Devices).

---

## **Table of Contents**

(ii) *Power Transistors.* We design, manufacture and sell power transistors, which (like our discrete power devices) operate at high current and voltage levels in a variety of switching and pulse-mode systems. We have three power transistor divisions: bipolar transistors, power MOSFETs (metal-oxide-silicon field effect transistors) and new power transistors such as insulated gate bipolar transistors ( IGBTs ).

Our bipolar power transistors are used in a variety of high-speed, high-voltage applications, including SMPS (switch-mode power supply) systems, television/monitor deflection circuits and lighting systems.

We also offer a family of VIPower (vertical integration power) products, as well as omnifets and application-specific devices. VIPower products exhibit the operating characteristics of power transistors while incorporating full thermal, short-circuit and overcurrent protection and allowing logic-level input. VIPower products are used in consumer goods (lamp ballasts) and automotive products (ignition circuits, central locking systems and transmission circuits). Omnifets are power MOSFETs with fully integrated protection devices for a variety of sophisticated automotive and industrial applications. Application-specific devices are semicustom ICs that integrate diodes, rectifiers and thyristors on the same chip, thereby providing cost-effective and space-saving components with a short design time.

(iii) *Standard Logic and Linear ICs.* We produce a variety of bipolar and HCMOS (high-speed complimentary metal oxide silicon) logic devices, including clocks, registers, gates and latches. Such devices are used in a wide variety of applications, including increasingly in portable computers, computer networks and telecommunications systems. We also offer standard linear ICs covering a variety of applications, including amplifiers, comparators, decoders, detectors, filters, modulators, multipliers and voltage regulators.

(iv) *Radio Frequency Products.* We supply components for radio frequency ( RF ) transmission systems used in television broadcasting equipment, radar systems, telecommunications systems and avionic equipment. We are targeting new applications for our RF products, including two-way wireless communications systems (in particular, cellular telephone systems) and commercial radio communication networks for business and government applications.

## **Strategic Alliances**

We believe that strategic alliances are critical to success in the semiconductor industry, and we have entered into strategic alliances with customers, other semiconductor manufacturers and major suppliers of design software. We have entered into several strategic customer alliances, including alliances with Alcatel, Bosch, Hewlett-Packard, Marelli, Nokia, Nortel Networks, Pioneer, Seagate Technology, Siemens VDO, Thomson Multimedia and Western Digital, among others. Customer alliances provide us with valuable systems and application know-how and access to markets for key products, while allowing our customers to share some of the risks of product development with us and to gain access to our process technologies and manufacturing infrastructure.

Alliances with other semiconductor manufacturers permit costly research and development and manufacturing resources to be shared to mutual advantage for joint technology development. We have been collaborating with Philips Semiconductors for the joint development of CMOS process technologies in Crolles, France, since 1992. We recently announced the signature of a memorandum of understanding relating to the future participation of Motorola in our research and development cooperation with Philips Semiconductors in Crolles, France, for the joint development of CMOS process technology to provide 90 nanometer to 32 nanometer chip technologies on 300mm wafers, as well as the building and operations of a 300mm wafer pilot line fab in Crolles, France. This announcement followed an earlier joint announcement with Philips Semiconductors in March 2002 regarding the participation of TSMC in our joint research and development effort in Crolles, France.

We have recently entered into a strategic alliance with Dai Nippon Printing Co, Ltd., a leading manufacturer of photomasks, for the development and supply of leading-edge and high-end photomasks which are critical components in the manufacture of silicon integrated circuits. As part of this agreement, a new company named DNP Photomask Europe will build and operate a photomask production facility close to our site in Agrate, Italy. The new plant is expected to start operations in mid-2003, and capital investment by the new company is expected to be approximately \$150 million over three years. We will have an equity interest of less than 20% in the new company. The close proximity of the planned site to our existing research and development and manufacturing centers in Crolles, France and Agrate, Italy, which are dedicated to complex System-on-Chip and Flash memory chips, coupled with barrier-free exchange of information on wafer and photomask processes, are expected to ensure rapid turn-around of new photomasks for products built using the most advanced technologies, from 130 and 90 nanometers and beyond.

We have established joint development programs with leading suppliers such as Air Liquide, Applied Materials, ASM Lithography, Canon, Hewlett-Packard, KLA-Tencor, LAM Research, MEMC, Schlumberger, Teradyne and Wacker and with computer-aided design ( CAD ) tool producers, including Cadence, Co Ware and Synopsys. We are a participant in Sematech I 300I for the

development of 300mm wafer manufacturing processes.

**Table of Contents**

We are active in joint European research efforts such as the MEDEA program, and also cooperate with major research institutions and universities.

**Customers and Applications**

We design, develop, manufacture and market over 3,000 main types of products that we sell to approximately 800 direct customers. We also sell our products through distributors. Major customers include Alcatel, Bosch, DaimlerChrysler, Delta, Delphi, Ericsson, Gemplus, Hewlett-Packard, Kenwood, Marelli, Matsushita, Motorola, Nokia, Nortel Networks, Philips, Pioneer, Samsung, Schlumberger, Scientific Atlanta, Seagate Technology, Siemens, Sony, Thomson Multimedia and Western Digital. To many of our key customers we provide a wide range of products, including dedicated products, discrete devices, memory products and programmable products. Our position as a strategic supplier of application-specific products to certain customers fosters close relationships that provide us with opportunities to supply such customers requirements for other products, including discrete devices, programmable products and memory products.

The following table sets forth certain of our significant customers and certain applications for our products:

**Telecommunications**

Customers:	Alcatel Ericsson Italtel	Lucent Technologies Marconi Matsushita	Motorola Nokia Nortel Networks	Philips Sagem Siemens
Applications:	Central office switching systems Digital cellular telephones Wireless networking (Bluetooth)		Telephone terminals (wireline and wireless) Internet access (xDSL) Data transport (routing, switching for electronic and optical networks)	

**Computer Systems**

Customers:	Acer Agilent Creative Technology	Delta Hewlett-Packard IBM	Logitech Maxtor Samsung	Seagate Sun Microsystems Western Digital
Applications:	Data storage Monitors and displays Graphics		Webcams Printers Imaging Power management	

**Automotive**

Customers:	Bosch DaimlerChrysler Delphi	Denso Lear Marelli	Motorola Pioneer Siemens	Valeo VDO Visteon
Applications:	Airbags  Antiskid braking systems Car radio Body and chassis electronics		Engine management systems (ignition and injection) Multiplex wiring kits Global positioning systems Car multimedia	

**Consumer Products**

Customers:	Agilent Technologies Bose Corporation EchoStar Grundig	Hughes Kenwood Matsushita Pace	Philips Pioneer Samsung	Scientific Atlanta Sony Thomson Multimedia
Applications:	Audio processing (CD, DVD, Hi-Fi) Digital cameras		DVDs Set-top boxes	

Digital music players  
Digital TVs

Analog TVs  
VCRs

**Industrial and Other Applications**

Customers:	Astec	Gemplus	Nagra	Schlumberger
	Autostrade	Giesecke & Devrient	Oberthur	Siemens
	Bull	IBM	Orga	
	Delta	Litton	Philips	

Applications:	Battery chargers	Lighting systems (lamp ballasts)
	Smartcards ICs	Motor controllers
	Industrial automation and control systems	Power supplies
	Intelligent power switches	Switch mode power supplies



## **Table of Contents**

In 2001, our largest customer, Nokia, represented 19.3% of our net revenues. No other single customer accounted for more than 10% of our net revenues. Sales to our top ten customers accounted for approximately 50% of our net revenues in 2001 (47% in 2000). We have several large customers, certain of whom have entered into strategic alliances with us. Many of our key customers operate in cyclical businesses and have in the past, and may in the future, vary order levels significantly from period to period. In addition, approximately 16% of our net revenues in 2001 were made through distributors, compared to 18% in 2000 and 1999. There can be no assurance that such customers or distributors, or any other customers, will continue to place orders with us in the future at the same levels as in prior periods. The loss of one or more of our customers or distributors, reduced bookings or product returns by our key customers or distributors, could adversely affect our operating results. In addition, in a declining market, we have been in the past and may in the future be driven to lower prices in response to competitive pressures and may expect a higher number of order cancellations, particularly by distributors and for commodity products.

### **Sales, Marketing and Distribution**

We operate regional sales organizations in Europe, North America, Asia Pacific, Japan and, since January 1, 1998, in Emerging Markets which include South America, Africa, Eastern Europe, the Middle East and India. For a breakdown of net revenues by product group and geographic region for each of the five years ended December 31, 2001, see Business Overview .

The European region is divided into five businesses units: automotive, commodities, consumer and computers, industrial and Smartcards, six geographically configured units to cover mid-sized OEM customers and distributors (France and the Benelux, Central Europe, Northern Europe, Southern Europe, Scandinavia and Finland).

In the North America region, the sales and marketing team is organized into five business units that are located near major centers of activity for either a particular application or geographic region: automotive (Detroit, Michigan), industrial and consumer (Chicago, Illinois), computer and peripheral equipment (San Jose, California and Longmont, Colorado), communications (Dallas, Texas) and distribution (Boston, Massachusetts). Each regional business unit has a sales force that specializes in the relevant business sector, providing local customer service, market development and specialized application support for differentiated system-oriented products. This structure allows us to monitor emerging applications, to provide local design support, and to identify new products for development in conjunction with the various product divisions as well as to develop new markets and applications with our current product portfolio. A central product marketing operation in Boston provides product support and training for standard products for the North America region, while a logistics center in Phoenix supports just-in-time delivery throughout North America. In addition, a comprehensive distribution business unit provides product and sales support for the nationwide distribution network.

In the Asia Pacific region, sales and marketing is organized by country and is managed from our regional sales headquarters in Singapore. We have sales offices in Taiwan, Korea, China, Hong Kong, Malaysia, Thailand and Australia. The Singapore sales organization provides central marketing, customer service, technical support, logistics, application laboratory and design services for the entire region. In addition, there are design centers in Taiwan, Korea, Hong Kong and Shenzhen.

In Japan, the large majority of our sales are made through distributors, as is typical for foreign suppliers to the Japanese market. However, our sales and marketing engineers in Japan work directly with customers as well as with the distributors to meet customers' needs. We provide marketing and technical support services to customers through sales offices in Tokyo and Osaka. In addition, we have established a design center and application laboratory in Tokyo. The design center designs custom ICs for Japanese clients, while the application laboratory allows Japanese customers to test our products in specific applications.

**Table of Contents**

The Emerging Markets region (designated as Region Five until January 1, 2001) was created as of January 1, 1998 and includes South America, Africa, Eastern Europe, the Middle East and India. Prior to that time, these markets had been covered, where appropriate, by the other existing sales and marketing organizations. Emerging Markets also includes the design and software development center in India, which employs approximately 800 people in a wide range of activities. We intend to increase our focus on this region to enhance our presence in these new markets.

The sales and marketing activities carried out by our regional sales organizations are supported by the product marketing that is carried out by each product division, which also include product development functions. This matrix system reinforces our sales and marketing activities and our broader strategic objectives.

We are pursuing the Gold Standard program, a long-term commitment to excellence in standard products. The program consists of manufacturing and offering standard products at the same price level as the market but with a superior level of quality, service and lead time. The related initiatives included worldwide advertising, promotional task forces in all regions, special distribution initiatives and worldwide training of salespeople and marketing personnel.

Each of the five regional sales organizations operates dedicated distribution organizations. To support the distribution network, we operate logistic centers in Saint Genis, France; Phoenix, Arizona; and Singapore, and have made considerable investments in warehouse computerization and logistics support.

We also use distributors and representatives to distribute our products around the world. Typically, distributors handle a wide variety of products, including products that compete with our products, and fill orders for many customers. Most of our sales to distributors are made under agreements allowing for price protection and/or the right of return on unsold merchandise. We recognize revenues upon transfer of ownership of the goods at shipment. Sales representatives generally do not offer products that compete directly with our products, but may carry complementary items manufactured by others. Representatives do not maintain a product inventory; instead, their customers place large quantity orders directly with us and are referred to distributors for smaller orders.

At the request of certain of our customers, we are also selling and delivering our products to Electronic Manufacturing Suppliers (EMS) which, on a contractual basis with our customers, incorporate our products into the dedicated products which they manufacture for our customers.

**Research and Development**

We believe that research and development is critical to our success and we are committed to increasing research and development expenditures in the future. In periods of industry downturn, such as in 2001, 1998 and 1997, we continue to invest strongly in R&D, while reducing our other general expenses. In 2001, we spent \$978 million on research and development, which represented a 4.7% decrease from \$1,026 million in 2000. The table below sets forth information with respect to our research and development spending since 1997 (not including design center, process engineering, pre-production or industrialization costs):

	Year ended December 31,				
	1997	1998	1999	2000	2001
	(in millions, except percentages)				
Expenditures	\$ 610.9	\$ 689.8	\$ 836.0	\$ 1,026.3	\$ 977.9
As a percentage of net revenues	15.2%	16.2%	16.5%	13.1%	15.4%

Approximately 80% of our research and development expenses in 2001 were incurred in Europe, primarily in France and Italy. See Public Funding . As of December 31, 2001, approximately 6,850 employees were employed in research and development activities.

Our policy in the field of research and development is market driven, focused on leading edge products and technologies and carried out by over 6,850 employees worldwide in close collaboration with strategic alliance partners, leading universities and research institutes, key customers and blue chip equipment manufacturers working at the cutting edge of their own markets. We invest in a variety of research and development projects ranging from long term advanced research for the acceleration, in line with industry requirements and roadmaps, of our broad

**Table of Contents**

range of process technologies including BICMOS, bipolar, CMOS, and DMOS ( BCD ), High Performance Logic, stand-alone and embedded Flash and other nonvolatile memories, to the continued expansion of our system level design expertise and IP creation for advanced architecture for System-on-Chip integration, as well as new products for many key applications in the field of digital consumer wireless communications and networking, computer peripherals, Smartcards and car multimedia among others.

Our research and development activities focus on the very large scale integration ( VLSI ) technology platform, new system architectures, new product developments and emerging technologies in microsystems and photonics. The development of the technology platform (VLSI technologies and design tools) is conducted by Central Research and Development ( CRD ) while new systems architectures are studied in the Advanced System Technology ( AST ) units. New product research and development is conducted within each product group in conjunction with customers. The highest concentration of our CRD activities is located in the two main VLSI facilities of Crolles, France and Agrate, Italy. Other CRD activities are located in Catania, Italy; Rousset, France; Carrollton, Texas; Berkeley, California; Ottawa, Canada and Noida, India. We also have an important research and development facility for process technology development in Castelletto, Italy.

The central research and development units participate in several strategic partnerships. Our manufacturing facility at Crolles, France houses a research and development center that is operated in the legal form of a French *Groupement d'intérêt économique* ( GIE ) named Centre Commun de Microelectronique de Crolles , whose members are us, France Telecom R&D and Laboratoire d'Electronique de Technologie d'Instrumentation ( LETI ), a research laboratory of Areva Group (formerly known as CEA-Industrie). The tripartite cooperation is intended to last until the end of 2002. We also cooperate with Philips Semiconductors to jointly develop sub-micron CMOS logic processes in Crolles, France as well as to build and operate an advanced 300mm wafer pilot line in Crolles, France. During 2001, the shell building has been built. We expect to complete this building and facilities during 2002. In April 2002, we announced that Motorola had signed a memorandum of understanding proposing to join a comprehensive alliance with us, Philips Semiconductors and TSMC to provide 90-nanometer to 32-nanometer chip technologies on 300mm wafers in our Crolles, France research and development center. This followed a previous announcement in March 2002 of an agreement among us, Philips and TSMC. Joint investment is intended to reach \$1.4 billion by 2005, with the stated goal of accelerating the development of future technologies and their proliferation throughout the semiconductor industry. However, there can be no assurance that we will be able to achieve this objective on satisfactory terms, that the alliance will enable us to effectively partner to meet customer demands, or that its operations will not be adversely affected by unforeseen events and the sizeable risks related to the development of new technologies, which could materially adversely affect our business, results of operations and prospects. See Item 3. Key Information Risk Factors Risk factors related to our operations Our research and development efforts in the field of CMOS process development are dependant on alliances and our business, results of operations and prospects could be materially adversely affected by the failure of such alliances in developing new process technologies in line with market requirements.

The CRD activities performed in our 200mm facility of Agrate, Italy, are focused on the development of new generation sub 0.13 micron Flash memories from which other nonvolatile memory products are derived, such as embedded memories, EEPROM and one-time programmable ( OTP ) memories. Current Flash developments, which are one of our technology drivers, are targeting very high density multilevel memories and the introduction of innovative materials for nonvolatile applications.

A technical center in Noida, India, develops design software and CAD (computer-aided design ( CAD )) libraries and tools. We have developed a wide network of cooperation with several universities in the United Kingdom (Bristol and Newcastle), Italy (Bologna, Catania, Milan, Pavia and Turin), France (Grenoble, Marseille, Toulouse and Tours), the United States (Carnegie Mellon, Stanford, Berkeley and UCLA) and Singapore for basic research projects on design and process development.

We are a member of International Sematech, a non-profit technology development consortium of 13 semiconductor manufacturers, funded by dues from the member companies. International Sematech works with members, equipment and materials suppliers, international labs and institutes, academia, and other consortia to accelerate the development of advanced precompetitive semiconductor manufacturing processes, materials and equipment for their member companies.

In addition to central research and development, each operating division also conducts independent research and development activities on specific processes and products focusing on developing an advanced range of the key technological building blocks required by targeted applications. These building blocks include (i) motion picture experts group ( MPEG2 ) decoder ICs, (ii) a family of 16-bit (ST10, super 10), 32-bit (ST20) and 64-bit

## **Table of Contents**

(ST50) microcontrollers, (iii) a family of general purpose DSP cores for embedded applications based on the current D950 solution and the ST100 as well as several dedicated DSP cores (MMDSP, SAFIRE, EMIRALDA) for specific applications, and (iv) embedded volatile (DRAM and SRAM) and nonvolatile (EPROM, EEPROM and Flash) memories. Applying our broad range of technologies and our expertise in diverse application domains, we are currently embedding dedicated, semicustom circuits and these advanced building blocks on the same chip, in addition to the many dedicated and semicustom ICs developed using power analog, digital and mixed signal technologies.

## **Intellectual Property**

Intellectual property rights that apply to our various products include patents, copyrights, trade secrets, trademarks and maskwork rights. We own more than 20,000 patents or pending patent applications corresponding to more than 11,000 original inventions, most of which have been registered in several countries around the world. In 2001, we filed 636 new patent applications around the world. Management believes that our intellectual property represents valuable property and intends to protect our investment in technology by enforcing all of our intellectual property rights. We have entered into several patent cross-licenses with several major semiconductor companies.

Our success depends in part on our ability to obtain patents, licenses and other intellectual property rights covering our products and their design and manufacturing processes. To that end, we have acquired certain patents and patent licenses and intend to continue to seek patents on our inventions and manufacturing processes. In addition, we have in the past negotiated broad patent cross-licenses with many of our competitors enabling us to design, manufacture and sell semiconductor products, without fear of infringing patents held by such competitors. The process of seeking patent protection can be long and expensive, and there can be no assurance that patents will issue from currently pending or future applications or that, if patents are issued, they will be of sufficient scope or strength to provide meaningful protection or any commercial advantage to us. In addition, effective copyright and trade secret protection may be unavailable or limited in certain countries. Competitors may also develop technologies that are protected by patents and other intellectual property rights and therefore such technologies may be unavailable to us or available to us subject to adverse terms and conditions. As our sales increase compared to those of our competitors, the strength of our patent portfolio may not be sufficient to guarantee the conclusion or renewal of broad patent cross-licenses on terms which do not affect our results of operations. Furthermore, litigation, which could demand financial and management resources, may be necessary to enforce our patents or other intellectual property rights.

Also, there can be no assurance that litigation will not be commenced in the future against us regarding patents, maskworks, copyrights, trademarks or trade secrets, or that any licenses or other rights to necessary intellectual property could be obtained on acceptable terms. The failure to obtain licenses or other intellectual property rights, as well as the expense or outcome of litigation, could adversely affect our results of operations or financial condition. We have from time to time received, and we may in the future receive, communications alleging possible infringement of certain patents and other intellectual property rights of others. Regardless of the validity or the successful assertion of such claims, we could incur significant costs with respect to the defense thereof, which could have a material adverse effect on our results of operations or financial condition.

## **Backlog**

Our sales are made primarily pursuant to standard purchase orders that are generally booked from one to twelve months in advance of delivery. Quantities actually purchased by customers, as well as prices, are subject to variations between booking and delivery to reflect changes in customer needs or industry conditions. During periods of economic slowdown and/or industry overcapacity and/or declining selling prices, customer orders are not generally made far in advance of the scheduled shipment date. Such reduced lead time can reduce management's ability to forecast production levels and revenues. During periods of capacity constraints, customer demand can exceed our manufacturing capacity.

Our backlog decreased steadily in 2001 reflecting the industry downturn while registering an increase in the first part of 2002. In industry downturns, customers tend to order products for immediate delivery, which leads us to build up inventory of key products in anticipation of orders and lowers our backlog.

We also sell certain products to key customers pursuant to frame contracts. Frame contracts are annual contracts with customers setting forth quantities and prices on specific products that may be ordered in the future.

## **Table of Contents**

These contracts allow us to schedule production capacity in advance and allow customers to manage their inventory levels consistent with just-in-time principles while shortening the cycle times required to produce ordered products. Orders under frame contracts are also subject to risks of price reduction, order cancellation and modifications as to quantities actually ordered.

Furthermore, the semiconductor industry is becoming increasingly characterized by new forms of supply, which requires us to build inventory on consignment close to our customers' manufacturing facilities, so that our customers can pick the products as and when they are required.

## **Competition**

Markets for our products are intensely competitive. While only a few companies compete with us in all of our product lines, we face significant competition in each of our product lines. We compete with major international semiconductor companies, some of which have substantially greater financial and other resources than us with which to pursue engineering, manufacturing, marketing and distribution of their products. Smaller niche companies are also increasing their participation in the semiconductor market, and semiconductor foundry companies have expanded significantly, particularly in Asia. Competitors include manufacturers of standard semiconductors, application-specific ICs and fully customized ICs, including both chip and board-level products, as well as customers who develop their own integrated circuit products and foundry operations. Some of our competitors are also our customers.

According to final rankings estimates published by Dataquest-Gartner Group in March 2002, we were the third largest global semiconductor company in 2001 based on sales, rising from sixth-largest in 2000. On the same basis, iSupply ranked us second-largest and IC-Insights third-largest in 2001. Based on our 2001 sales, Dataquest-Gartner Group ranked us as the world's third-largest semiconductor supplier in combined revenues from general purpose and application specific semiconductors for all communications system use and total automotive applications. According to iSupply and Databeans Inc., based on 2001 sales, we are the world's largest supplier of Analog ICs. According to Dataquest-Gartner Group, we are the world's leading supplier of EPROM memory and thyristors and the second leading supplier of EEPROM memory and power diodes.

The primary international semiconductor companies, which compete with us include Advanced Micro Devices, Agere Systems, Broadcom, Hitachi, IBM, Infineon Technologies, Intel, Mitsubishi Electric, Motorola, National Semiconductor, Nippon Electric Company, Philips Semiconductors, Samsung, Texas Instruments and Toshiba.

According to published industry data and other industry sources, investment in worldwide semiconductor fabrication capacity totaled approximately \$33 billion in 1999, \$59 billion in 2000 and \$35 billion in 2001, or approximately 22%, 29% and 25% respectively, of the total available market ( TAM ) for such years. Such capacity investment is made not only by international semiconductor companies, but also companies specializing in operating semiconductor foundries, particularly in Asia such as Chartered Semiconductors, TSMC and UMC.

We compete in different product lines to various degrees on the basis of price, technical performance, product features, product system compatibility, customized design, availability, quality and sales and technical support. In particular, standard products may involve greater risk of competitive pricing, inventory imbalances and severe market fluctuations than differentiated products. Our ability to compete successfully depends on elements both within and outside of our control, including successful and timely development of new products and manufacturing processes, product performance and quality, manufacturing yields and product availability, customer service, pricing, industry trends and general economic trends.

## **Organizational Structure**

We are a multinational group of companies that designs, develops, manufactures and markets a broad range of products used in a wide variety of microelectronic applications, including telecommunications systems, computer systems, consumer goods, automotive products and industrial automation and control systems. We are organized in a matrix structure with geographical regions interacting with product divisions, bringing all levels of management closer to the customer and facilitating communication among research and development, production, marketing and sales organizations. STMicroelectronics N.V. owns directly or indirectly 100% of all of our significant operating subsidiaries which have their own organization and management bodies, and are operated independently in compliance with the laws of their country of incorporation. For a list of our subsidiaries, see note 3 to our consolidated financial statements.

**Table of Contents****Property, Plants and Equipment**

We currently operate 17 main manufacturing sites around the world. The 150mm semiconductor manufacturing facility which we acquired in June 2000 from Nortel Networks in Ottawa, Canada was closed at the end of 2001 and our Rancho Bernardo facility in California was also closed at the end of April 2002. The table below sets forth certain information with respect to our current manufacturing facilities, products and technologies. Front-end manufacturing facilities are wafer fabrication plants (known as fabs) and back-end facilities are assembly, packaging and final testing plants.

<u>Location</u>	<u>Products</u>	<u>Technologies</u>	<u>Gross floor area size (including clean room, facilities and production offices)</u>  (in square meters)
<b>Front-end facilities</b>			
Crolles, France	Semicustom devices, microcontrollers and dedicated products	Fab: 200mm 0.35/0.18-micron CMOS and 0.7/0.25-micron BiCMOS; R&D on VLSI sub-micron technologies in conjunction with France Telecom R&D and Philips Semiconductors	51,600
Phoenix, Arizona	Dedicated products	Fab: 200mm 0.5/0.35-micron CMOS, 0.5/0.35-micron BiCMOS	46,400
Agrate, Italy	Nonvolatile memories, microcontrollers and dedicated products	Fab 1: 150mm 2.0/0.35-micron BCD, nonvolatile memories	47,500
		Fab 2: 200mm 0.35/0.15-micron Flash, embedded Flash, R&D on nonvolatile memories	32,800
Rousset, France	Microcontrollers, nonvolatile memories and Smartcard ICs and dedicated products	Fab 1: 150mm 0.8/0.4-micron CMOS, Smartcard	32,000
		Fab 2: 200mm 0.35/0.15-micron CMOS, Flash, Smartcard	66,500
Catania, Italy	Power transistors, smart power ICs and nonvolatile memories	Fab 1: 150mm 4/1-micron MOS power, BCD	22,500
		Fab 2: 150mm 4/1-micron MOS power and pilot line RF	10,000
		Fab 3: 200mm 0.35/0.15-micron, Flash, Smartcard	45,000
Rennes, France	Dedicated and power products	Fab: 150mm 3/2-micron BiCMOS, BCD and bipolar	17,500
Castelletto, Italy	Smart power BCD	Fab: 150mm 4.0/0.8-micron BCD and MEMS pilot line	12,500
Tours, France	Protection thyristors, diodes and application-specific discrete-power transistors	Fab: 125mm and 150mm discrete	36,500

**Table of Contents**

<u>Location</u>	<u>Products</u>	<u>Technologies</u>	<u>Gross floor area size (including clean room, facilities and production offices)</u>  (in square meters)
Ang Mo Kio, Singapore	Dedicated products, microcontrollers, power transistors, commodity products; nonvolatile memories and dedicated products	Fab 1: 125mm 4/1.5-micron, power MOS, bipolar transistor, bipolar ICs, standard linear CMOS	61,500
		Fab 2: 150mm 2.5/1.5-micron bipolar, power MOS and BCD	16,900
		Fab 3: 200mm 0.35/0.18-micron BiCMOS, Flash (volume production planned in Q1 2002)	61,000
Carrollton, Texas	Memories, microcontrollers, dedicated products; and semicustom devices	Fab: 150mm 1.5/0.6-micron BiCMOS, BCD and CMOS	41,500
<b>Back-end facilities</b> Muar, Malaysia	Dedicated and standard products, microcontrollers		63,050
Kirkop, Malta	Dedicated products, microcontrollers, semicustom devices		27,200
Tuas, Singapore	Dedicated products and nonvolatile memories		12,400
Toa Payoh, Singapore	Nonvolatile memories and power ICs		17,150
Ain Sebaa, Morocco	Discrete and standard products		30,000
Bouskoura, Morocco	Nonvolatile memories, discrete and standard products, micromodules, RF and subsystems		60,000
Shenzhen, China(1)	Nonvolatile memories, discrete and standard products		40,000

(1) Jointly operated with SHIC, a subsidiary of Shenzhen Electronics Group.

At the end of 2001, our front-end facilities had total capacity of approximately 170,000, 150mm equivalent wafer starts per week. The number of wafer starts per week varies from facility to facility and from period to period as a result of changes in product mix. We have six 200mm wafer production facilities currently in operation. Of these, three (at Crolles, France, Catania, Italy and Phoenix, Arizona) have full capacity installed at December 31, 2001; two (in Rousset, France and Agrate, Italy) have roughly half of the ultimate capacity installed at the same date; one (in Singapore) started production in the fourth quarter of 2001.

We have completed the construction of the building shell for an advanced 300mm wafer pilot-line fabrication facility in Crolles (France) and have proceeded with our partner Philips Semiconductors with the commencement of the facilities. The pilot line is initially designed to produce up to 1,000 wafers per week, with





---

**Table of Contents**

potential to ramp up to 2,000 wafers per week. The first 300mm wafers are expected to be processed at the end of 2002. On April 12, 2002, we announced that Motorola had signed a memorandum of understanding proposing to join the research and development alliance among us, Philips and TSMC to provide 90-nanometer to 32-nanometer chip technologies on 300mm wafers in the Crolles, France research and development center. We are currently finalizing the terms of our agreements involving Motorola.

We have completed preparation of the ground and the piling for the future 300mm fabrication facility at Catania (Italy). The facility is currently expected to start production in 2004.

We have historically subcontracted approximately 15% of total volumes for back-end operations to external suppliers. In 2000, we significantly increased our use of external foundries for front-end manufacturing, to reach approximately 15% of our wafer needs. In periods of high demand, we intend to maintain this level of external foundry subcontracting, reducing it as needed to meet market conditions, like in 2001, when due to reduced customer demand, the average level of front-end subcontracting was significantly lower.

During 2001, we limited our capital investment, allocating it to strategic projects such as the evolution of the production capability to lower geometries in the 200mm facilities; the development of advanced manufacturing processes (0.13 micron); the relentless improvement in the quality of our operations; the start-up of the new 200mm production facility in Singapore; the continuation of the two 300mm projects (Crolles, France, for pilot-line, Catania, Italy, for volume manufacturing); the ramp up to volume manufacturing of the new Bouskoura, Morocco back-end facility; and the completion of the extension of the back-end Shenzhen (China) facility. We have also increased overall installed front-end capacity, as a result of the completion of the expansion projects started in year 2000.

According to present visibility, we currently expect that capital spending for full year 2002 will be in the range of \$1.2 billion (below the 2001 level of \$1.7 billion), one-half of which is related to maintenance and optimization of existing plants and with the majority of the expenditures planned for the second part of the year. This investment will primarily be used for the start-up of production at the Crolles (France) 300mm facility; the construction of the building shell at the 300mm facility of Catania (Italy); pursuing R&D effort towards most advanced processes (0.10 micron); continuing the upgrade of the manufacturing capability of our 200mm facilities to finer geometries (0.15/0.13 micron); expanding the capacity installed in the 200mm facility of Singapore; continuing the improvement of the quality of our operations; and adapting the back-end and testing capacities to the production mix requested in the market. As of December 31, 2001, we had commitments of approximately \$342 million for equipment purchases. We will continue to monitor our level of capital spending, taking into consideration factors such as trends in the semiconductors market, capacity utilization and announced additions.

Although each fabrication plant is dedicated to specific processes, our strategy is to develop local presences, better serve customers and mitigate manufacturing risks by having key processes operated in different manufacturing plants. In certain countries, we have been granted tax incentives by local authorities in line with local regulations, being recognized as an important contributor to the economies where our plants are located. In 2000, we sought to take advantage of industry capacity limitations by purchasing from subcontractors both wafer foundry and back-end services and thereby minimizing our capital expenditure needs. In 2001, our plants, particularly our 150mm plants, were underutilized, and we reduced our dependency on outside subcontractors.

Our manufacturing processes are highly complex, require advanced and costly equipment and are continuously being modified in an effort to improve yields and product performance. Impurities or other difficulties in the manufacturing process can lower yields, interrupt production or result in losses of products in process. As system complexity has increased and sub-micron technology has become more advanced, manufacturing tolerances have been reduced and requirements for precision have become even more demanding. Although our increased manufacturing efficiency has been an important factor in our improved results of operations, we have from time to time experienced production difficulties that have caused delivery delays and quality control problems, as is common in the semiconductor industry. No assurance can be given that we will be able to increase manufacturing efficiency in the future to the same extent as in the past or that we will not experience production difficulties in the future.

As is common in the semiconductor industry, we have from time to time experienced difficulty in ramping up production at new facilities or effecting transitions to new manufacturing processes and, consequently, have

**Table of Contents**

suffered delays in product deliveries or reduced yields. There can be no assurance that we will not experience manufacturing problems in achieving acceptable yields, product delivery delays or interruptions in production in the future as a result of, among other things, capacity constraints, construction delays, ramping up production at new facilities, upgrading or expanding existing facilities, changing our process technologies, or contamination or fires, storms, earthquakes or other acts of nature, any of which could result in a loss of future revenues. In addition, the development of larger fabrication facilities that require state-of-the-art sub-micron technology and larger-sized wafers has increased the potential for losses associated with production difficulties, imperfections, or other causes of defects. In the event of an incident leading to an interruption of production at a fab, we may not be able to shift production to other facilities on a timely basis or the customer may decide to purchase products from other suppliers, and in either case the loss of revenues and impact on our relationship with our customers could be significant. Our operating results could also be adversely affected by the increase in fixed costs and operating expenses related to increases in production capacity if revenues do not increase commensurately. Finally, in periods of high demand, we increase our reliance on external contractors for foundry and back-end service. Any failure to perform by such subcontractors could impact our relationship with our customers and could materially affect our results of operations.

**Public Funding**

We participate in certain programs established by the European Commission and individual countries in Europe (France and Italy), which provide public funding for research and development and capital investment in compliance with local laws. The pan-European programs are generally open to eligible companies operating and investing in Europe and cover a period of several years. In Italy, both electronics and economic development programs are open to eligible companies regardless of their ownership or country of incorporation.

The main European programs for research and development in which we are involved include: (i) the Micro-Electronics Development for European Application ( MEDEA+ ) cooperative research and development program, (ii) European Union research and development projects with FWP5 for Information Technology; and (iii) national programs for research and development and industrialization in the electronics industries. We also participate in investment incentive programs for the economic development of certain regions.

The MEDEA+ cooperative research and development program was launched in June 2000 by the Eureka Conference and is designed to bring together many of Europe's top researchers in a 12,000 man-year program that will cover the period 2000-2008. The MEDEA+ program replaced the joint European research program called MEDEA, which was a European cooperative project in microelectronics among several countries that covered the period 1996 through 2000 and involved more than 80 companies. In Italy, the *Programma Nazionale per la Bioelettronica* has more than 10 participants, and various programs for intervention in the *Mezzogiorno* (southern Italy) are open to eligible companies, including non-European companies, operating in the region and regulated by specific laws. Italian programs often cover several years, but funding is typically subject to annual budget appropriation. In France, support for microelectronics is provided to over 30 companies manufacturing or using semiconductors. The amount of support under French programs is decided annually and subject to budget appropriation.

We have also entered into funding agreements with France and Italy which set forth the parameters of state support under certain national programs and require, among other things, compliance with European Commission ( EC ) regulations and approval by EU authorities and annual and project-by-project reviews and approvals.

Funding of programs in France and Italy is subject to annual appropriation, and if such governments were unable to provide anticipated funding on a timely basis or if existing government-funded programs were curtailed or discontinued, such an occurrence could have a material adverse effect on our business, operating results and financial condition. From time to time, we have experienced delays in the receipt of funding under these programs. As the availability and timing of such funding are substantially outside our control, there can be no assurance that we will continue to benefit from such government support, that funding will not be delayed from time to time, that sufficient alternative funding would be available if necessary or that any such alternative funding would be provided on terms favorable to us as those previously provided.

Public authority funding for research and development is reported in Other Income and Expenses in our consolidated statements of income. See Note 18 to the Consolidated Financial Statements. Such funding has totaled \$60.4 million, \$42.1 million and \$57.5 million in the years 1999, 2000 and 2001, respectively. Government support

## **Table of Contents**

for capital expenditures funding has totaled \$53.4 million, \$95.2 million and \$77.1 million in the years 1999, 2000 and 2001, respectively. Such funding has been used to support our capital investment; while receipt of these funds is not directly reflected in our results of operations, the resulting lower amounts recorded in property, plant and equipment reduce the level of depreciation recognized by us.

Low interest financing has been made available (principally in Italy) under programs such as the Italian Republic's Fund for Applied Research, established in 1968 for the purpose of supporting Italian research projects meeting specified program criteria. At year-end 1999, 2000 and 2001, we had \$48.8 million, \$31.3 million and \$57.8 million, respectively, of indebtedness outstanding under state-assisted financing programs at an average interest cost of 1.6%, 1.4% and 1.2%, respectively.

Due to changes in legislation and/or review by the competent administrative or judicial bodies, there can be no assurance that government funding granted to us may not be revoked or challenged or discontinued in whole or in part, by any competent state or European authority, until the legal time period for challenging or revoking such funding has fully lapsed.

## **Suppliers**

The quality and technology of equipment used in the integrated circuit ( IC ) manufacturing process defines the limits of our technology. Demand for increasingly smaller chip structures means that semiconductor producers must quickly incorporate the latest advances in process technology to remain competitive. Advances in process technology cannot be brought about without commensurate advances in equipment technology, and equipment costs tend to increase as the equipment becomes more sophisticated.

In the front-end process we use steppers, scanners, track equipment, strippers, chemo-mechanical polishing equipment, cleaners, inspection equipment, etchers, physical and chemical vapor-deposition equipment, implanters, furnaces, testers, probers and other specialized equipment. The manufacturing tools that we use in the back-end process include bonders, burn-in ovens, testers and other specialized equipment.

Our manufacturing processes use many raw materials, including silicon wafers, lead frame, mold compound, ceramic packages and chemicals and gases. The prices of many of these raw materials are volatile. We obtain our raw materials and supplies from diverse sources on a just-in-time basis. Although supplies for the raw materials used by us are currently adequate, shortages could occur in various essential materials due to interruption of supply or increased demand in the industry.

## **Environmental Matters**

Our manufacturing operations use many chemicals, gases and other hazardous substances, and we are subject to a variety of governmental regulations related to the use, storage, discharge and disposal of such chemicals and gases and other hazardous substances, emissions and wastes. Consistent with our TQEM principles, we have established proactive environmental policies with respect to the handling of such chemicals and gases and emissions and waste disposals from our manufacturing operations. We have engaged outside consultants to audit our environmental activities and have created environmental management teams, information systems, education and training programs, and environmental assessment procedures for new processes and suppliers. All of our plants are validated for the Eco-Management and Audit Scheme ( EMAS ) and have also obtained ISO 14001 certification. We are also participating in various working groups set up by the European Commission to propose new legislation regarding the collection, recovery and disposal of electronic equipment, as well as banning the use of lead and some flame retardants in manufacturing electronic components. We intend to proactively implement such new legislation when enacted in line with our commitment towards environmental protection.

Although we have not suffered material environmental claims in the past and believe that our activities conform to presently applicable environmental regulations in all material respects, environmental claims or the failure to comply with present or future regulations could result in the assessment of damages or imposition of fines against us, suspension of production or a cessation of operations, and as with other companies engaged in similar activities, any failure by us to control the use of or adequately restrict the discharge of hazardous substances, emissions or wastes could subject us to future liabilities.

Because we have manufacturing facilities located in southern Italy (Catania, Sicily), we face the risk that an earthquake could damage these facilities, which would cause a reduction in our revenue and profitability. Any

**Table of Contents**

disruption in our product development capability or our manufacturing capability arising from earthquakes could cause significant delays in the production or shipment of our products until we are able to shift development or production to different facilities or arrange for third parties to manufacture our products. We may not be able to obtain alternate capacity on favorable terms or at all. The risk of earthquakes to our manufacturing facilities in southern Italy (Catania, Sicily) is significant due to the proximity of major earthquake fault lines to these manufacturing facilities. In addition, some of our suppliers are located in regions where there is a risk of earthquake.

**Industry Background*****The Semiconductor Market***

Semiconductors are the basic building blocks used to create an increasing variety of electronic products and systems. Since the invention of the transistor in 1948, continuous improvements in semiconductor process and design technologies have led to smaller, more complex and more reliable devices at a lower cost per function. As performance has increased and size and cost have decreased, semiconductors have expanded beyond their original primary applications (military applications and computer systems) to applications such as telecommunications systems, consumer goods, automotive products and industrial automation and control systems. In addition, system users and designers have demanded systems with more functionality, higher levels of performance, greater reliability and shorter design cycle times, all in smaller packages at lower costs. These demands have resulted in increased semiconductor content as a percentage of system cost. Calculated on the basis of the total available market (the TAM), which includes all semiconductor products, as a percentage of worldwide revenues from production of electronic equipment according to published industry data, semiconductor content has increased from approximately 9% in 1991 to approximately 21% in 2000. In 2001, the semiconductor content is estimated at 15% due to the severe market downturn of chips. The demand for electronic systems has also expanded geographically with the emergence of new markets, particularly in the Asia Pacific region.

Semiconductor sales have increased significantly over the long term but have experienced significant cyclical variations in growth rates. According to trade association data, the TAM increased from \$17.8 billion in 1983 to \$139.0 billion in 2001 (growing at a compound annual rate of approximately 12.0%). The serviceable available market (the SAM) consisted of the TAM without DRAMs and optoelectronic products through 1995 to the end of 2000. From 2001, to better reflect our current product offering, the SAM was redefined to exclude microprocessors and peripherals, RAM/ROM memories, some semicustom integrated circuits (ICs) and small signal transistors. The SAM increased from approximately \$6.0 billion in 1985 to \$78.0 billion in 2001, growing at a compound annual rate of approximately 15.3%, based upon the 2001 SAM definition revision. In 2001, the TAM decreased by 32%. Based on trade association data, the TAM decreased in the first quarter 2001 compared to the fourth quarter 2000 by 19.3%. In the second quarter 2001, the TAM decreased by 19.7% over the first quarter 2001, and in the third quarter 2001, the TAM decreased by 19.7% over the second quarter 2001, and during the fourth quarter 2001, the TAM remained flat compared to the third quarter 2001. The SAM decreased by 24% in 2001 compared to 2000. In 2001, approximately 23% of all semiconductors were shipped to the Americas, 22% to Japan, 29% to Europe, and 26% to the Asia Pacific region.

According to trade association data, during the first quarter of 2002, the TAM increased by 5.6% over the fourth quarter of 2001, but decreased by 25% compared to the first quarter 2001.

**Table of Contents**

The following table sets forth information with respect to worldwide semiconductor sales by type of semiconductor and geographic region:

	Worldwide Semiconductor Sales(1)					Compound Annual Growth Rates(2)			
	1983	1993	1999	2000	2001	83-93	93-97	99-00	00-01
	(in billions of \$)					(expressed as percentages)			
Integrated Circuits	\$ 13.3	\$ 66.0	\$ 130.3	\$ 176.9	\$ 118.5	17.4%	16.0%	35.8%	(33.0)%
Analog (linear and mixed-signal)	2.8	10.7	22.1	30.5	23.2	14.3	16.5	38.0	(24.0)%
Digital Logic	6.7	34.1	75.9	97.2	70.4	17.7	19.9	28.1	(27.6)%
Memory:									
DRAM	1.7	13.1	20.7	28.9	11.2	22.7	10.7	39.6	(61.3)%
Others	2.0	8.1	11.6	20.3	13.7	15.0	4.4	75.0	(33.0)%
<b>Total Memory</b>	<b>3.7</b>	<b>21.2</b>	<b>32.3</b>	<b>49.2</b>	<b>24.9</b>	<b>19.1</b>	<b>8.4</b>	<b>52.3</b>	<b>(49.5)%</b>
<b>Total digital</b>	<b>10.4</b>	<b>55.3</b>	<b>108.2</b>	<b>146.4</b>	<b>95.3</b>	<b>18.2</b>	<b>15.8</b>	<b>35.3</b>	<b>(34.9)%</b>
Discrete	3.7	8.6	13.4	17.7	13.1	8.8	11.1	32.0	(26.0)%
Opto-electronics	0.7	2.6	5.7	9.8	7.4	14.0	14.7	71.9	(24.5)%
<b>TAM</b>	<b>\$ 17.8</b>	<b>\$ 77.3</b>	<b>\$ 149.4</b>	<b>\$ 204.4</b>	<b>\$ 139.0</b>	<b>15.8%</b>	<b>15.4%</b>	<b>36.8%</b>	<b>(32.0)%</b>
Europe	3.3	14.6	31.9	42.3	30.2	16.0	18.8	32.6	(28.6)%
Americas	7.8	24.7	47.5	64.1	35.8	12.2	16.8	34.9	(44.2)%
Asia Pacific	1.2	14.2	37.2	51.3	39.8	28.0	20.7	37.9	(22.3)%
Japan	5.5	23.8	32.8	46.7	33.2	15.8	7.8	42.4	(29.1)%
<b>TAM</b>	<b>\$ 17.8</b>	<b>\$ 77.3</b>	<b>\$ 149.4</b>	<b>\$ 204.4</b>	<b>\$ 139.0</b>	<b>15.8%</b>	<b>15.4%</b>	<b>36.8%</b>	<b>(32.0)%</b>

(1) Source: WSTS

(2) Calculated using end points of the periods specified.

Although cyclical changes in production capacity in the semiconductor industry and demand for electronic systems have resulted in pronounced cyclical changes in the level of semiconductor sales and fluctuations in prices and margins for semiconductor products from time to time, the semiconductor industry has experienced substantial growth over the long term. Factors that are contributing to long-term growth include the development of new semiconductor applications, increased semiconductor content as a percentage of total system cost, emerging strategic partnerships and growth in the electronic systems industry in the Asia Pacific region.

**Semiconductor Classifications**

The process technologies, levels of integration, design specificity, functional technologies and applications for different semiconductor products vary significantly. As differences in these characteristics have increased, the semiconductor market has become highly diversified as well as subject to constant and rapid change. Semiconductor product markets may be classified according to each of these characteristics.

Semiconductors can be manufactured using different process technologies, each of which is particularly suited to different applications. Since the mid-1970s, the two dominant processes have been bipolar (the original technology used to produce integrated circuits) and complementary metal-oxide-silicon ( CMOS ). Bipolar devices typically operate at higher speeds than CMOS devices, but CMOS devices consume less power and permit more transistors to be integrated on a single IC. While bipolar semiconductors were once used extensively in large computer systems, CMOS has become the prevalent technology, particularly for devices used in personal computer systems. In connection with the development of new semiconductor applications and the demands of system designers for more integrated semiconductors, advanced technologies have been developed during the last decade that are particularly suited to more systems-oriented semiconductor applications. For mixed-signal applications, BiCMOS

technologies have been developed to combine the high-speed and high-voltage characteristics of bipolar technologies with the low power consumption and high integration of CMOS technologies. For intelligent power applications, BCD technologies have been developed that combine bipolar, CMOS and diffused metal oxide silicon ( DMOS ) technologies. Such systems-oriented technologies require more process steps and mask levels, and are more complex than the basic function-oriented technologies. The use of systems-oriented technologies requires knowledge of system design and performance characteristics (in particular, analog

---

**Table of Contents**

and mixed-signal systems and power systems) as well as expertise and experience with several semiconductor process technologies.

Semiconductors are often classified as either discrete devices (such as individual diodes, thyristors, transistors as well as optoelectronic products) or integrated circuits (in which thousands of functions are combined on a single chip of silicon to form a more complex circuit). Compared to the market for ICs, there is typically less differentiation among discrete products supplied by different semiconductor manufacturers. Also, discrete markets have generally grown at slower, but more stable, rates than IC markets.

Semiconductors may also be classified as either standard components or application-specific ICs (ASICs). Standard components are used by a large group of systems designers for a broad range of applications, while ASICs are designed to perform specific functions in specific applications. Generally, there are three types of ASICs: full-custom devices, semicustom devices and application-specific standard products (ASSPs). Full custom devices are typically designed to meet the particular requirements of one specific customer. Semicustom devices are more standardized ICs that can be customized with efficient computer aided design (CAD) tools within a short design cycle time to perform specific functions. ASSPs are standardized ASICs that are designed to perform specific functions in a specific application, but are not proprietary to a single customer.

The two basic functional technologies for semiconductor products are analog and digital. Analog (or linear) devices monitor, condition, amplify or transform analog signals, which are signals that vary continuously over a wide range of values. Analog circuits are critical as an interface between electronic systems and a variety of real world phenomena such as sound, light, temperature, pressure, weight or speed. Electronics systems continuously translate analog signals into digital data, and vice versa.

The analog semiconductor market consists of a large and growing group of specific markets that serve numerous and widely differing applications, including applications for automotive systems, instrumentation, computer peripheral equipment, industrial controls, communications devices, video products and medical systems. Because of the varied applications for analog circuits, manufacturers typically offer a greater variety of devices to a more diverse group of customers. Compared to the market for commodity digital devices such as standard memory and logic devices, the analog market is characterized by longer product life cycles, products that are less vulnerable to technological obsolescence, and lower capital requirements due to the use of mature manufacturing technologies. Such characteristics have resulted in growth rates that have been less volatile than growth rates for the overall semiconductor industry.

Digital devices perform binary arithmetic functions on data represented by a series of on/off states. Historically, the digital IC market has been primarily focused on the fast growing markets for computing and information technology systems. Increasing demands for high-throughput computing and networking and the proliferation of more powerful personal computers and workstations in recent years have led to dramatic increases in digital device density and integration. As a result, significant advances in electronic system integration have occurred in the design and manufacture of digital devices.

There are two major types of digital ICs: memory products and logic devices. Memory products, which are used in electronic systems to store data and program instructions, are generally classified as either volatile memories (which lose their data content when power supplies are switched off) or nonvolatile memories (which retain their data content without the need for constant power supply). Volatile memories are used to store data in virtually all computer systems, from large and mid-range computers to personal computers and workstations. Memory products are typically standard, general purpose ICs that can be manufactured in high volumes using basic CMOS processes, and they are generally differentiated by cost and physical and performance characteristics, including data capacity, die size, power consumption and access speed.

The primary volatile memory devices are DRAMs (dynamic random access memory), which accounted for 45% of semiconductor memory sales in 2001, and SRAMs (static RAMs). DRAMs are volatile memories that lose their data content when power supplies are switched off, whereas SRAMs are volatile memories that allow the storage of data in the memory array but without the need for clock or refresh logic circuitry. SRAMs are roughly four times as complex as DRAMs (four transistors per bit of memory compared to one transistor) and are significantly more expensive than DRAMs per unit of storage. DRAMs are used in a computer's main memory to temporarily store data retrieved from low cost external mass memory devices such as hard disk drives. SRAMs are principally used as caches and buffers between a computer's microprocessor and its DRAM-based main memory.

---

**Table of Contents**

Nonvolatile memories are typically used to store program instructions that control the operation of microprocessors and electronic systems. Among such nonvolatile memories, read-only memories ( ROMs ) are permanently programmed when they are manufactured while programmable ROMs ( PROMs ) can be programmed by system designers or end-users after they are manufactured. Erasable PROMs ( EPROMs ) may be erased and reprogrammed several times, but to do so EPROMs must be physically removed from electronic systems, exposed to ultraviolet light, reprogrammed using an external power supply and then returned to the systems. Electrically erasable PROMs ( EEPROMs ) can be erased byte by byte and reprogrammed in-system without the need for removal. Using EEPROMs, a system designer or user can program or reprogram systems at any time. Flash memories are products that represent an intermediate solution for system designers between EPROMs and EEPROMs based on their cost and functionality.

Flash memories are typically less expensive per bit of stored information than EEPROMs, and can also be erased and rewritten. The entire content of a Flash memory or large blocks of data (not individual bytes) can be erased with a Flash of current. Because Flash memories can be erased and reprogrammed electrically and in-system, they are more flexible than EPROMs and, therefore, are progressively replacing EPROMs in many of their current applications. Flash memories are typically used in high volume in digital mobile phones and digital consumer applications (set-top boxes, DVDs, digital cameras, MP3 digital music players) and are also suitable for solid state mass storage of data and emerging high-volume applications.

Logic devices process digital data to control the operation of electronic systems. The largest segment of the logic market, standard logic devices, includes microprocessors, microcontrollers and digital signal processors. Microprocessors are the central processing units of computer systems. Microcontrollers are complete computer systems contained on single integrated circuits that are programmed to specific customer requirements. They contain microprocessor cores as well as logic circuitry and memory capacity. Microcontrollers control the operation of electronic and electromechanical systems by processing input data from electronic sensors and generating electronic control signals, and are used in a wide variety of consumer products (including alarm systems, household appliance controls and video products), automotive systems (including engine control and dashboard instrumentation), computer peripheral equipment (including disk drives, facsimile machines, printers and optical scanners), industrial applications (including motor drives and process controllers), and telecommunications systems (including telephones, answering machines and digital cellular phones). DSPs are parallel processors used for high complexity, high speed real-time computations in a wide variety of applications, including answering machines, modems, digital cellular telephone systems, audio processors and data compression systems. Standard devices are intended for utilization by a large group of systems designers for a broad range of applications. Consequently, standard devices usually contain more functions than are actually required and, therefore, may not be cost-effective for certain specific applications. In addition to standard logic devices, a broad range of full-custom, semicustom and application-specific standard products ( ASSP ) logic devices is developed for a wide variety of applications. These devices are typically designed to meet particular customer requirements. Compared to memory markets, logic device markets are much more differentiated and dependent upon intellectual property and advanced product design skills.

Analog/digital (or mixed-signal ) ICs combine analog and digital devices on a single chip to process both analog signals and digital data. Historically, analog and digital devices have been developed separately as they are fundamentally different and it has been technically difficult to combine analog and digital devices on a single IC. System manufacturers have generally addressed mixed-signal requirements using printed circuit boards containing many separate analog and digital circuits acquired from multiple suppliers. However, system designers are increasingly demanding system level integration in which complete electronic systems containing both analog and digital functions are integrated on a single IC.

Mixed-signal ICs are typically characterized as analog ICs due to their similar market characteristics, including longer product life cycles, diverse applications and customers and more stable growth through economic cycles as compared to digital devices. However, certain parts of the mixed-signal market are becoming higher volume markets as the increasing use of mixed-signal devices has enhanced the options of system designers and contributed to the development of new applications, including multimedia, video conferencing, automotive, mass storage and personal communications.



**Table of Contents****Item 5. Operating and Financial Review and Prospects**

*The following discussion should be read in conjunction with our Consolidated Financial Statements and Notes thereto included elsewhere in this annual report on Form 20-F. The following discussion contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended. Our actual results may differ significantly from those projected in the forward-looking statements. For a discussion of factors that might cause future actual results to differ materially from our recent results or those projected in the forward-looking statements in addition to those set forth below, see Cautionary Statement Regarding Forward-Looking Statements and Item 3. Key Information Risk Factors. We assume no obligation to update the forward-looking statements or such factors.*

**Overview**

The semiconductor industry experienced very difficult business conditions in 2001, registering the worst downturn in its history. The industry's downward trend, which began in the fourth quarter of 2000, continued throughout all 2001. According to preliminary trade association data, worldwide sales of semiconductor products (the total available market or TAM) decreased 32.0% in 2001 compared to 2000, after an increase in 2000 of 36.8% compared to 1999, and the market for products produced by us (the serviceable available market, or SAM, which consists of the TAM without DRAMs, and optoelectronic devices) decreased in 2001 by approximately 27.3% after an increase in 2000 of approximately 34.8% compared to 1999. In 2001, the TAM was \$139.0 billion, while the SAM was \$120.4 billion. Starting from 2001, our SAM was redefined in order to be more in line with our product portfolio, as such covering approximately 56% of total TAM and excluding PC motherboard major devices such as microprocessors and their peripherals, random access memories (RAMs), read-only memories (ROMs) and semicustom and discrete segments such as the small signal transistor market and optoelectronics devices. In 2001, our redefined SAM decreased by 24% over 2000 following an increase of 44.5% compared with 1999.

Our net revenues in 2001 were \$6,356.9 million, an 18.6% decrease from \$7,813.2 million in 2000, while in 2000 our net revenues increased 54.5% compared to 1999.

Based on trade association data for 2001, we believe we gained market share against both the TAM and the SAM compared to 2000.

Within a poor industry environment, characterized by significant overcapacity and pricing pressures, we continued to outperform the industry in the markets we serve and to further strengthen our financial position. Importantly, we remained profitable during the most negative cycle in the history of the semiconductor industry. This was achieved through a combination of cost reduction programs, yield improvements and optimization measures that enabled us to avoid the major employee lay-offs that characterized most of our industry.

In 2001, the difficult business conditions resulted in declining product demand from many of our end markets, which negatively affected our revenues. These declines in product demand were exacerbated in certain areas by excess inventory held by our customers. The declining product demand and the inventory reduction programs initiated by our customers produced a significant drop in our volumes of sales and consequently, a strong decrease in the rates of utilization of our manufacturing facilities. These negative market conditions also generated pressure on our average selling prices mainly for our standard and commodity products. Furthermore, during the latter part of 2001, we launched a program to reduce our inventory levels which succeeded in bringing our year-end inventory level in line with the lower activity rates. All these factors resulted in the decision to close certain wafer fabrication plants and in selective shutdowns, mainly of the most mature 125mm and 150mm wafer fabrication plants. Our gross margin was thus negatively impacted, both by reduced revenues and production levels, decreasing significantly when compared to the previous year period.

In response to the deteriorating conditions in the semiconductor industry, we have taken actions designed to further enhance our competitive position, both over the short- and medium/long-term. We believe these actions are in keeping with our overall strategic direction:

On May 31, 2001, we announced the planned closing of our facility in Ottawa, Canada. The closure was completed by the end of 2001 and all production has been transferred to our other facilities around the world. In September 2001, we initiated a plan for the closure of our 150mm plant in Rancho Bernardo, California. The closure was completed in April 2002. We recorded restructuring charges and other related plant closure expenses of \$25.9 million pursuant to the closures of our facilities in

---

## **Table of Contents**

Ottawa, Canada, and Rancho Bernardo, California. In addition, we recorded an impairment charge of \$96.6 million for some of the tangible assets of our facilities in Ottawa, Canada and Rancho Bernardo, California.

We implemented several short-term temporary shutdowns in many of our wafer fabrication plants, particularly in the more mature plants.

During 2001, we implemented measures to decrease selling, general and administrative costs and non-core research and development expenditures. These measures, comprising primarily a hiring freeze, external contract renegotiations and discretionary cost reductions, contributed significant savings in 2001 when compared to 2000.

We reduced our capital expenditures in 2001, from an initial plan of \$2.5 billion to \$1.7 billion.

During 2001, we reviewed the carrying values of our tangible and intangible assets in our balance sheet and, as a consequence, recorded an impairment charge of \$319.6 million for some of those assets, as a result of the \$96.6 million related to the closure of our plants of Ottawa, Canada and Rancho Bernardo, California, of expected under-utilization of certain mature wafer fabrication plants and with respect to intangible assets pursuant to acquisitions made in prior years.

We also recorded a special inventory charge for obsolescence of \$70.7 million in cost of sales in the second quarter 2001 due to significant cancellations of customers' orders that resulted in unusable quantities of work in process and finished goods inventories.

As anticipated, during the 2002 first quarter there was a sequential decline in our net revenues from the 2001 fourth quarter, which was primarily attributable to seasonal factors as well as pricing pressures resulting from industry-wide overcapacity. Net revenues for the 2002 first quarter were \$1,355.2 million, representing a 6.4% sequential decline from the 2001 fourth quarter. During the 2002 first quarter we reached a beneficial level of operating leverage from our fabrication facilities, illustrated by a sequential gross margin increase from 31.7% in the 2001 fourth quarter to 33.4% in the 2002 first quarter. This performance resulted from significant yield improvements and higher overall wafer fabrication plants utilization rates. During the first quarter 2002, we continued to tightly control discretionary spending while maintaining programs that will fuel our future growth. In the aggregate, our selling, general and administrative expenses and our research and development expenses totalled \$365.2 million, virtually flat on a sequential basis. At the same time, we continued to fund our research and development programs, our 300mm wafer projects and the expansion of our leading-edge technology capacity. Net order flow accelerated in the first quarter of 2002, during which time we also experienced a degree of price stabilization that benefited memory and other product families. Based upon available backlog information and order rate trends, we believe that we are positioned to post double-digit sequential net revenue growth of approximately 10% in the 2002 second quarter. This projected net revenue gain is expected to reflect strengthened demand from virtually all of our end-markets, which would significantly increase our overall wafer fabrication plants utilization rates. Within this scenario, our ability to leverage our infrastructure could add 200 to 300 basis points to gross margin in the 2002 second quarter as compared with the 2002 first quarter. Such performance could affect second quarter 2002 earnings to an even greater extent, reflecting the benefits of our reduced cost structure. Over a longer-term horizon, we believe that we enjoy a very favorable competitive position in those targeted applications which are likely to lead the market in unit growth. Thus, while global economic and business conditions remain the key variables affecting semiconductor industry performance, we believe that we will continue to gain market share in the markets we serve.

Our capital expenditures for 2002 are expected to be approximately \$1.2 billion, one-half of which is related to maintenance and optimization of existing plants. The remaining amount will be primarily allocated to the 300mm wafer projects and the expansion of leading-edge technology capacity. These investments, in concert with ongoing product development and strategic initiatives, are expected to strengthen our ability to gain additional and profitable market share as global economic and business conditions improve.

## **Other Developments**

We completed our plan to repurchase our shares announced during September 2001. As of December 31, 2001, 9.4 million of our common shares had been repurchased for a total amount of \$233.3 million and are reflected

## Table of Contents

at cost as a reduction of shareholders' equity. The repurchased shares have been designated to fund our most recent employee stock option plan. On March 1, 2002, we announced our intention to proceed with a further repurchase of a maximum amount of four million common shares, in order to fund further stock option grants under our most recent employee stock option plan. The repurchase of such four million common shares was completed in early May 2002 for a total amount of \$115.1 million.

On December 11, 2001, our principal shareholder, STMicroelectronics Holding II B.V., completed the private placement of 69 million of our common shares, for the benefit of Finmeccanica and France Telecom, two of our indirect shareholders. France Telecom also completed the offering of 1.5 billion notes exchangeable into 30 million of our existing common shares held by STMicroelectronics Holding II B.V. on or after January 2, 2004.

After these operations, STMicroelectronics Holding N.V., the parent company of STMicroelectronics Holding II B.V., was owned 49% by FT1CI, a French holding company owned by Areva and France Telecom, and 51% by Finmeccanica, an Italian holding company, based on indirect economic interests in us, and jointly owned based on voting rights. In connection with the operation, the shareholders of STMicroelectronics Holding II B.V. signed a new shareholders agreement on December 10, 2001 to restructure their holdings in STMicroelectronics Holding II B.V. The agreement permits the shareholders to restructure the holding companies, provides for new corporate governance principles and for the terms and conditions of future disposals of common shares in STMicroelectronics, and contains provisions relating to stability in the shareholding structure and future flexibility. Under the new shareholders agreement, the parties have agreed to modify the governance rights within the holding company so that they will be shared equally by FT1CI and Finmeccanica, despite the difference in percentage ownership, for 24 months after the date of the new shareholders agreement plus the three-month period thereafter. The new shareholders agreement also states that France Telecom intends to dispose as soon as possible of its indirect interest in the shares, while Areva has expressed its interest in obtaining the option of liquidating its stake after a 24-month period from the date of such agreement. The new shareholders agreement provides that Finmeccanica will have the right to sell additional shares during such 24-month period so that it may sell a total number of shares equal to the amount sold by France Telecom. Any such transaction, or publicity concerning such potential transaction, could affect the market price of STMicroelectronics and cause the market price of our shares to drop significantly.

During 2001, we have finalized the acquisition of Ravisent and Veridicom and the formation of SuperH, Inc., a joint venture with Hitachi, Ltd. These transactions were conducted in order to strengthen our activities in technology and design.

In February 2002, in order to strengthen our position in the DSL sector, we announced the acquisition of the intellectual property and products of Tioga Technologies for Digital Subscriber Line (xDSL) chipsets.

In March 2002, we announced an agreement with Royal Philips Electronics and Taiwan Semiconductor Manufacturing Company Ltd. ( TSMC ) for the joint development of advanced process technologies at the 300mm wafer fabrication facility Crolles 2 site in our Crolles, France research and development center. In April, we announced that Motorola had signed a memorandum of understanding to join. There can be no assurance, however, that we will be able to finalize the terms of the alliance or that it will succeed.

In April 2002, we signed an agreement to acquire the semiconductor chip manufacturing unit, Alcatel Microelectronics, from Alcatel for 390 million (approximately \$351 million), subject to final adjustments and governmental approval, and to cooperate on the joint development of DSL chip sets that will also be made available to the open market. The new agreement also calls for us to become a preferred supplier of Alcatel, thus expanding our long-standing strategic alliance. Simultaneously with this acquisition, we signed an agreement with Idaho-based AMI Semiconductors Inc. for sale of the mixed-signal business activities of Alcatel Microelectronics for 70 million (approximately \$63 million). This second transaction includes Alcatel Microelectronics' fabrication facilities located in Oudenaarde, Belgium, approximately 1,000 employees and the associated process technologies.

At our annual general meeting of shareholders held on March 27, 2002, all of the proposed resolutions were approved including:

the re-appointment of the current Supervisory Board Members for a three-year term;

**Table of Contents**

the re-appointment of Mr. Pasquale Pistorio to a three-year term as our President and Chief Executive Officer; and  
the distribution of a cash dividend of \$0.04 per share, consistent with the prior year's cash dividend payment.

**Results of Operations**

The tables below set forth information on our net revenues by product group and by geographic region:

	Year ended December 31,				
	1997	1998	1999	2000	2001
	(in millions)				
<b>Net Revenues by Product Group:(1)</b>					
Telecommunications, Peripherals and Automotive(1)	\$ 1,606.9	\$ 1,855.2	\$ 2,305.5	\$ 3,481.7	\$ 3,031.4
Discrete and Standard ICs(1)	839.5	816.7	927.9	1,213.1	942.5
Memory Products	708.6	659.6	835.9	1,552.9	1,381.5
Consumer and Microcontrollers(1)(4)	738.8	806.3	886.4	1,466.3	895.7
New Ventures Group and Others(2)(4)	125.4	110.0	100.6	99.2	105.8
<b>Total</b>	<b>\$ 4,019.2</b>	<b>\$ 4,247.8</b>	<b>\$ 5,056.3</b>	<b>\$ 7,813.2</b>	<b>\$ 6,356.9</b>
<b>Net Revenues by Geographic Region:(3)</b>					
Europe	\$ 1,753.3	\$ 1,768.9	\$ 1,833.6	\$ 2,629.2	\$ 2,169.0
North America	899.1	937.3	1,156.1	1,843.0	1,160.7
Asia Pacific	1,065.8	1,247.9	1,658.2	2,614.7	2,301.8
Japan	214.5	180.7	239.7	402.4	331.4
Emerging Markets(3)	86.5	113.0	168.7	323.9	394.0
<b>Total</b>	<b>\$ 4,019.2</b>	<b>\$ 4,247.8</b>	<b>\$ 5,056.3</b>	<b>\$ 7,813.2</b>	<b>\$ 6,356.9</b>
	(as a percentage of net revenues)				
<b>Net Revenues by Product Group:(1)</b>					
Telecommunications, Peripherals and Automotive(1)	40.0%	43.6%	45.6%	44.6%	47.7%
Discrete and Standard ICs(1)	20.9	19.2	18.4	15.5	14.8
Memory Products	17.6	15.5	16.5	19.9	21.7
Consumer and Microcontrollers(1) (4)	18.4	19.0	17.5	18.8	14.1
New Ventures Group and Others(2)(4)	3.1	2.7	2.0	1.2	1.7
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Net Revenues by Geographic Region:(3)</b>					
Europe	43.6%	41.6%	36.3%	33.6%	34.1%
North America	22.4	22.1	22.9	23.6	18.3
Asia Pacific	26.5	29.4	32.8	33.5	36.2
Japan	5.3	4.3	4.7	5.2	5.2
Emerging Markets(3)	2.2	2.6	3.3	4.1	6.2
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

(1)

## Edgar Filing: STMICROELECTRONICS NV - Form 20-F

In January 1999, we implemented organizational changes to better orient our product groups to end-use applications. As a result, net revenues have been restated for prior periods to reflect these changes. In addition, the former Dedicated Products Group has become the Telecommunications, Peripherals and Automotive Groups, while the former Programmable Products Group has become the Consumer and Microcontrollers Groups.

- (2) Includes revenues from sales of subsystems and other products and from the New Ventures Group, which was created in May 1994 to act as a center for our new business opportunities.
- (3) Revenues are classified by location of customer invoiced. For example, products ordered by U.S.-based companies to be invoiced to Asia Pacific affiliates are classified as Asia Pacific revenues. Net revenues by geographic region have been reclassified to reflect the creation of Region Five in January 1998, which includes emerging markets such as South America, Africa, Eastern Europe, the Middle East and India. Prior years have been restated to reflect this reclassification. In the fourth quarter of 2000, Region Five changed its name to become the Emerging Markets region.
- (4) In 2001, we implemented organizational changes to better orient our product groups to end-use applications. These changes affected the Consumer and Microcontrollers Groups and the New Ventures Group and Others. As a result, net revenues have been restated for prior periods to reflect these changes.

**Table of Contents**

The following table sets forth certain financial data from our consolidated statements of income since 1997, expressed in each case as a percentage of net revenues:

	Year ended December 31,				
	1997	1998	1999	2000	2001
Net sales	98.8%	99.1%	99.3%	99.4%	99.2%
Other revenues	1.2	0.9	0.7	0.6	0.8
Net revenues	100.0	100.0	100.0	100.0	100.0
Cost of sales	(61.1)	(61.7)	(60.4)	(54.0)	(63.7)
Gross profit	38.9	38.3	39.6	46.0	36.3
Operating Expenses:					
Selling, general and administrative	(11.3)	(11.5)	(10.6)	(9.0)	(10.1)
Research and development	(15.2)	(16.2)	(16.5)	(13.1)	(15.4)
Other income and expenses	0.5	1.7	0.8	(1.1)	(0.1)
Impairment and restructuring charges					(5.4)
Total operating expenses	(26.0)	(26.0)	(26.3)	(23.2)	(31.0)
Operating income	12.9	12.3	13.3	22.8	5.3
Net interest income (expense)		0.2	0.7	0.6	(0.2)
Equity in loss of joint venture					(0.1)
Income before income taxes and minority interests	12.9	12.5	14.0	23.4	5.0
Income tax expense	(2.9)	(2.8)	(3.1)	(4.8)	(1.0)
Income before minority interests	10.0	9.7	10.9	18.6	4.0
Minority interests	0.1		(0.1)		
Net income	10.1%	9.7%	10.8%	18.6%	4.0%

**2001 vs. 2000**

In 2001, we were negatively impacted by the downward cycle of the semiconductor industry, which contributed to the significant decrease of our net revenues, operating income, net income and diluted earnings per share. However, we maintained our commitment to invest significant amounts in research and development on our core and strategic programs. We have largely reduced our capital spending during the year in line with the decline of end customers' demand in order to maintain a solid financial position.

**Net revenues.** Net sales decreased 18.8%, from \$7,764.4 million in 2000 to \$6,303.9 million in 2001. The decrease in net sales was primarily the result of lower volume due to a decline of semiconductor market demand. Average selling prices were also under pressure, which resulted in a general overall decline in pricing of our products, estimated at approximately 6%. Other revenues increased from \$48.8 million in 2000 to \$53.0 million in 2001 due primarily to an increase in co-development contract fees. Net revenues decreased 18.6%, from \$7,813.2 million in 2000 to \$6,356.9 million in 2001. The exchange rate impact on net revenues in 2001 was estimated to be marginally negative due to the appreciation of the U.S. dollar, in particular as compared to the euro.

With respect to the product groups, the Telecommunications, Peripherals and Automotive Groups' net revenues decreased 12.9% primarily as a result of volume decreases in wireline telecommunications, automotive products and data storage devices partially offset by an increase in volume in wireless telecommunications. The Discrete and Standard ICs Group's net revenues decreased 22.3%, due to the volume and price declines across virtually all major product families. Net revenues of the Memory

Products Group decreased by 11.0% as a result of price declines in its major product families and volume decreases, mainly in EPROM (erasable programmable read-only memory), EEPROM (electrically erasable PROMs) and Smartcards; an improved mix in Flash memories partially offset these declines. The Consumer and Microcontrollers Groups' net revenues decreased 38.9% as a result of significantly lower volume in digital consumer applications such as set-top boxes, consumer TV and imaging products, as well as a general decrease in prices in most major product families.

In 2001, we continued to focus on differentiated ICs, which accounted for 66.1% of our net revenues, compared to 63.3% in 2000. Such products foster close relationships with customers, resulting in early knowledge of their evolving requirements and opportunities to access their markets for other products. Analog ICs (including

**Table of Contents**

mixed signal ICs), the majority of which are also differentiated ICs, accounted for approximately 51% of our net revenues in 2001 compared to 49% in 2000, while discrete devices accounted for approximately 10% of our net revenues in 2001 compared to approximately 10% in 2000. In recent years, these families of products, in particular analog ICs, have experienced less volatility in sales growth rates and average selling prices than the overall semiconductor industry. However, the difficult competitive environment in the semiconductor market in more recent years has led to price pressures in these product families as well.

In 2001, approximately 34.1% of our net revenues were realized in Europe, 18.3% in North America, 36.2% in Asia Pacific, 5.2% in Japan and 6.2% in Emerging Markets. All the major regions registered significant declines in revenues in 2001 versus 2000, with North America particularly impacted and declining 37.0%, due to the local unfavorable economic environment, while Emerging Markets revenues increased 21.6% in 2001 versus 2000, due in part to the move of some customers' production facilities to low labor cost areas.

In 2001, our top ten customers represented approximately 50% of our consolidated net revenues compared to approximately 47% in 2000. One customer, the Nokia group of companies, represented 19.3% of 2001 net revenues.

*Gross profit.* Cost of sales decreased from \$4,216.9 million in 2000 to \$4,047.0 million in 2001, primarily due to a significant decrease in production volume and the decrease in the cost of outsourced wafers manufactured by external foundries, while there was an increase in depreciation associated with new capital investments. Additionally, in cost of sales we recorded a special obsolete inventory charge of \$70.7 million in the second quarter of 2001 due to significant cancellations of certain customers orders.

Our gross profit decreased 35.8%, from \$3,596.3 million in 2000 to \$2,309.9 million in 2001, primarily as a result of lower net revenues. As a percentage of net revenues, gross margin decreased from 46.0% in 2000 to 36.3% in 2001, due to the lower level of net sales, declining selling prices and under-utilization of our manufacturing facilities. The exchange rate impact on gross profit in 2001 compared to 2000 was estimated to be marginally favorable, since the appreciation of the U.S. dollar versus the euro had a favorable impact on cost of sales that was higher than the unfavorable impact on net revenues. See *Impact of Changes in Exchange Rates* .

*Selling, general and administrative expenses.* Selling, general and administrative expenses decreased 8.9%, from \$703.7 million in 2000 to \$641.4 million in 2001, reflecting the results of the cost reduction actions taken by us to respond to the market downturn on discretionary expenses, as well as of a hiring freeze. As a percentage of net revenues, selling, general and administrative expenses increased from 9.0% in 2000 to 10.1% in 2001 due to the decrease in net revenues.

*Research and development expenses.* Research and development expenses decreased 4.7%, from \$1,026.3 million in 2000 to \$977.9 million in 2001. The decrease in research and development was mainly due to lower spending in non-core activities and cost reduction in certain external development contracts. However, we continued to invest heavily in research and development and plan to continue increasing our research and development staff. We continue to allocate significant financial resources to expand our market leadership in key applications, reflecting our commitment to service and continuous innovation. Our reported research and development expenses do not include marketing design center, process engineering, pre-production or industrialization costs. As a percentage of net revenues and due to the declining revenues, research and development expenses increased from 13.1% in 2000 to 15.4% in 2001.

*Impairment and restructuring charges.* Total impairment and restructuring charges in 2001 were \$345.5 million while no such charge was booked in 2000.

In the second quarter of 2001, we recorded an impairment charge of \$296.3 million. This charge includes impairment losses of (i) \$176.7 million associated with the tangible assets of some of our fabrication sites; (ii) \$97.3 million related to purchased technologies and goodwill on previous acquisitions; and (iii) \$22.3 million for financial assets with an other than temporary decline in value. This impairment charge resulted from a significant deterioration in the business climate in the semiconductor industry. Due to these market changes, we revised our production forecasts and we foresee an under-utilization of the capacities of certain 150mm fabrication facilities.

Additionally, in the second quarter of 2001, we recorded restructuring charges of \$15.0 million related to the closure of our facility in Ottawa, Canada. These restructuring charges related to the severance of plant personnel and were paid in 2001.



**Table of Contents**

In the third quarter of 2001, we recorded an impairment charge of \$23.3 million relating to the building and facilities of our Rancho Bernardo, California, 150mm wafer fabrication plant to be closed by April 2002. This impairment charge was based on quoted market value and resulted from our decision to close the plant.

In the fourth quarter of 2001, we recorded expenses of \$10.9 million relating to severance costs and retention bonuses for plant employees during the closure of our facilities in Ottawa, Canada and Rancho Bernardo, California. Any costs of relocating personnel from the facilities and for transferring equipment to other fabrication sites will be recognized as incurred during 2002.

*Other income and expenses.* Other income and expenses decreased from expenses of \$83.6 million in 2000 to expenses of \$6.1 million in 2001. Other income and expenses include primarily funds received from government agencies in connection with our research and development programs, the cost of new plant start-ups, the amortization of goodwill and related acquisition costs, as well as foreign currency gains and losses, the gains realized on certain sales of marketable securities, the costs of certain activities relating to intellectual property and miscellaneous revenues and expenses. The decrease of the negative balance in other income and expenses resulted primarily from the gains on sales of marketable securities, lower start-up costs of new production facilities and higher income from public funding for research and development. Goodwill amortization also increased due to recent acquisitions such as WSI, in late 2000 and Ravisent, in early 2001.

*Operating income.* Our operating income decreased by 81.0%, from \$1,782.7 million in 2000 to \$339.0 million in 2001. The exchange rate impact on operating income in 2001 was estimated to be favorable since the appreciation of the U.S. dollar against the euro had a favorable impact on cost of sales and operating expenses, which more than offset the negative impact on revenues.

*Net interest income (expense).* Net interest decreased from income of \$46.7 million in 2000 to expense of \$13.0 million in 2001 primarily as a result of the decrease in interest income from our available cash due to the significant decline in interest rates for U.S. dollar-denominated funds, while our interest expenses are mainly related to our convertible bonds, which are at fixed rates.

*Income tax expense.* Provision for income tax was \$61.1 million in 2001 compared to \$375.1 million in 2000, primarily as a result of the decrease in income before income taxes and minority interests. Our accrued effective tax rate decreased from 20.5% in 2000 to 19.0% in 2001. Our tax rate is variable and depends on changes in the level of operating profits within various local jurisdictions and on changes in the applicable taxation rates of these jurisdictions. We currently enjoy certain tax benefits in some countries; as such benefits may not be available after 2001 due to changes within the local jurisdictions, our effective tax rate could increase in the coming years.

*Net income.* Our net income decreased 82.3%, from \$1,452.1 million in 2000 to \$257.1 million in 2001. As a percentage of net revenues, 2001 net income was 4.0%, down from 18.6% of 2000 net income. The decrease in net income in 2001 is primarily due to the strong decline in net revenues and the impairment and restructuring charges incurred during the year. These negative items were partially offset by the reduction in selling, general and administrative expenses and in research and development expenses, reflecting our cost reduction measures taken in 2001. Diluted earnings per share reached \$0.29, a decrease of 81.6% compared to diluted earnings per share of \$1.58 in 2000. All per share numbers have been adjusted to reflect the 3-for-1 stock split effected in May 2000.

**2000 vs. 1999**

In 2000, we benefited from the industry recovery and our strong market position, and increased significantly our net revenues, operating income, net income and diluted earnings per share in each successive quarter. We continued to invest significant amounts in research and development and completed several strategic acquisitions, which enhanced our intellectual property portfolio. We accelerated our capital spending during the year in order to build up capacity to meet demand.

*Net revenues.* Net sales increased 54.6%, from \$5,023.1 million in 1999 to \$7,764.4 million in 2000. The increase in net sales was primarily the result of higher volume and an improved product mix, including sales of new products. The exchange rate impact on net sales in 2000 was estimated to be negative. Other revenues increased from \$33.2 million in 1999 to \$48.8 million in 2000 due primarily to an increase in licensing revenues. Net revenues increased 54.5%, from \$5,056.3 million in 1999 to \$7,813.2 million in 2000.

**Table of Contents**

The Telecommunications, Peripherals and Automotive Groups' net revenues increased 51.0% primarily as a result of volume increases in wireless and wireline telecommunications, data storage devices and automotive products and a more favorable product mix in wireline products. The Discrete and Standard ICs Group's net revenues increased 30.7%, as the volume increases in basically all major product families and the more favorable product mix in standard commodities and discrete devices more than offset the price declines in basically all major product families. Net revenues of the Memory Products Group increased by 85.8% as a result of volume increases in basically all product families (such as Flash memories, Smartcard ICs and EEPROMs) and improved mix in Flash memories and EPROMs. The Consumer and Microcontrollers Groups' net revenues increased 65.4% as a result of significantly higher volumes in digital video, digital consumer applications and imaging products, partially offset by a general decrease in prices in most major product families.

*Gross profit.* Our gross profit increased 79.7%, from \$2,001.8 million in 1999 to \$3,596.3 million in 2000, primarily as a result of higher net revenues. As a percentage of net revenues, gross profit increased from 39.6% in 1999 to 46.0% in 2000, benefiting from higher production volumes, improved product mix and a more cost-effective utilization of manufacturing facilities.

Cost of sales increased from \$3,054.5 million in 1999 to \$4,216.9 million in 2000, primarily due to a significant increase in production volume, the increase in purchases of wafers from external foundries and the increased depreciation associated with new capital investments.

The exchange rate impact on gross profit in 2000 compared to 1999 was estimated to be favorable. The appreciation of the U.S. dollar versus the euro had a favorable impact on cost of sales that was higher than the unfavorable impact on net revenues. See [Impact of Changes in Exchange Rates](#).

*Selling, general and administrative expenses.* Selling, general and administrative expenses increased 31.7%, from \$534.2 million in 1999 to \$703.7 million in 2000, reflecting increased efforts in the marketing and administrative functions and the information technology area. As a percentage of net revenues, selling, general and administrative expenses decreased from 10.6% in 1999 to 9.0% in 2000.

*Research and development expenses.* Research and development expenses increased 22.8%, from \$836.0 million in 1999 to \$1,026.3 million in 2000. We continued to invest heavily in research and development and plan to continue increasing our research and development staff. We continue to allocate significant financial resources to expand our market leadership in key applications, reflecting our commitment to service and continuous innovation. Our reported research and development expenses do not include marketing design center, process engineering, pre-production or industrialization costs. As a percentage of net revenues, research and development expenses decreased from 16.5% in 1999 to 13.1% in 2000.

*Other income and expenses.* Other income and expenses decreased from income of \$39.9 million in 1999 to expenses of \$83.6 million in 2000. Other income and expenses include primarily funds received from government agencies in connection with our research and development programs, the cost of new plant start-ups, the amortization of goodwill and related acquisition costs, as well as foreign currency gains and losses, the gains realized on certain sales of marketable securities, the costs of certain activities relating to intellectual property and miscellaneous revenues and expenses. The decrease in other income and expenses resulted primarily from higher start-up costs of new production facilities. In addition, lower funds received from government agencies in connection with our research and development programs, higher patent expenses and higher goodwill amortization contributed to the increase in expenses.

*Operating income.* Our operating income increased by 165.5%, from \$671.5 million in 1999 to \$1,782.7 million in 2000. The exchange rate impact on operating income in 2000 was estimated to be favorable since the appreciation of the U.S. dollar against the euro had a favorable impact on gross profit and operating expenses.

*Net interest income (expense).* Net interest income increased from income of \$35.6 million in 1999 to income of \$46.7 million in 2000 primarily as a result of the increase in cash and cash equivalents following the share offering and the Liquid Yield Option Notes (LYONs) offering completed on September 22, 1999, and the convertible debt offering completed on November 16, 2000.

*Income tax expense.* Provision for income tax was \$375.1 million in 2000 compared to \$157.2 million in 1999, primarily as a result of the increase in income before income taxes and minority interests. The accrued effective tax rate decreased from 22.2% in 1999 to 20.5% in 2000 mainly due to the application of new benefits in

## **Table of Contents**

certain countries. As such benefits may not be available after 2000, an increase in the effective tax rate could result in the coming years.

*Net income.* Our net income increased 165.3%, from \$547.3 million to \$1,452.1 million. As a percentage of net revenues, 2000 net income was 18.6%, up from 10.8% of 1999 net income. Diluted earnings per share reached \$1.58, an increase of 154.8% compared to diluted earnings per share of \$0.62 in 1999. All per share numbers have been adjusted to reflect the 2-for-1 stock split effected in June 1999 and the 3-for-1 stock split effected in May 2000.

## **Quarterly Results of Operations**

The following table sets forth certain financial information for the years 2000 and 2001. Such information is derived from unaudited consolidated financial statements, prepared on a basis consistent with the audited consolidated financial statements, that include, in the opinion of management, only normal recurring adjustments necessary for a fair presentation of the information set forth therein. Operating results for any quarter are not necessarily indicative of results for any future period. In addition, in view of the significant growth experienced by us in recent years, the increasingly competitive nature of the markets in which we operate, the changes in product mix and the currency effects of changes in the composition of sales and production among different geographic regions, we believe that period-to-period comparisons of our operating results should not be relied upon as an indication of future performance.

Our quarterly and annual operating results are also affected by a wide variety of other factors that could materially and adversely affect revenues and profitability or lead to significant variability of operating results, including, among others, capital requirements and the availability of funding, competition, new product development and technological change and manufacturing. In addition, a number of other factors could lead to fluctuations in operating results, including order cancellations or reduced bookings by key customers or distributors, intellectual property developments, international events, currency fluctuations, problems in obtaining adequate raw materials on a timely basis, and the loss of key personnel. As only a portion of our expenses varies with our revenues, there can be no assurance that we will be able to reduce costs promptly or adequately in relation to revenue declines to compensate for the effect of any such factors. As a result, unfavorable changes in the above or other factors have in the past and may in the future adversely affect our operating results. Quarterly results have also been and may be expected to continue to be substantially affected by the cyclical nature of the semiconductor and electronic systems industries, the speed of some process and manufacturing technology developments, market demand for existing products, the timing and success of new product introductions and the levels of provisions and other unusual charges incurred.

**Table of Contents****Quarter ended (unaudited)**

	<b>April 1, 2000</b>	<b>July 1, 2000</b>	<b>Sept. 30, 2000</b>	<b>Dec. 31, 2000</b>	<b>March 31, 2001</b>	<b>June 30, 2001</b>	<b>Sept. 29, 2001</b>	<b>Dec. 31, 2001</b>
(in millions, except percentages and per share data)(1)								
<b>Consolidated Statement of Income Data</b>								
Net revenues	\$ 1,702.2	\$ 1,877.3	\$ 2,042.0	\$ 2,191.7	\$ 1,921.1	\$ 1,587.2	\$ 1,400.7	\$ 1,447.9
Cost of sales	(985.1)	(1,001.6)	(1,077.1)	(1,153.1)	(1,065.3)	(1,054.6)	(938.6)	(988.4)
<b>Gross profit</b>	<b>717.1</b>	<b>875.7</b>	<b>964.9</b>	<b>1,038.6</b>	<b>855.8</b>	<b>532.6</b>	<b>462.1</b>	<b>459.5</b>
Operating expenses:								
Selling, general and administrative	(159.5)	(177.1)	(174.0)	(193.1)	(176.8)	(180.2)	(144.2)	(140.3)
Research and development	(235.1)	(245.1)	(259.8)	(286.4)	(272.1)	(255.7)	(229.2)	(220.8)
Other income and expenses	(30.5)	(37.7)	(19.3)	4.1	5.4	22.7	(17.2)	(16.9)
Impairment and restructuring charges						(311.3)	(23.3)	(10.9)
<b>Total operating expenses</b>	<b>(425.1)</b>	<b>(459.9)</b>	<b>(453.1)</b>	<b>(475.4)</b>	<b>(443.5)</b>	<b>(724.5)</b>	<b>(413.9)</b>	<b>(388.9)</b>
Operating income (loss)	292.0	415.8	511.8	563.2	412.3	(191.9)	48.2	70.6
Net interest income (expense)	16.4	14.0	7.3	9.0	3.1	0.5	(4.8)	(11.8)
Equity in loss of joint ventures							(1.2)	(3.6)
<b>Income (loss) before income taxes and minority interests</b>	<b>308.4</b>	<b>429.8</b>	<b>519.1</b>	<b>572.2</b>	<b>415.4</b>	<b>(191.4)</b>	<b>42.2</b>	<b>55.2</b>
Income tax expense	(69.4)	(92.7)	(103.6)	(109.5)	(74.2)	28.6	(6.2)	(9.3)
<b>Income (loss) before minority interests</b>	<b>239.0</b>	<b>337.1</b>	<b>415.5</b>	<b>462.7</b>	<b>341.2</b>	<b>(162.8)</b>	<b>36.0</b>	<b>45.9</b>
Minority interests	(0.6)	(0.6)	(0.2)	(0.8)	(0.4)	(1.7)	(0.2)	(0.9)
<b>Net income (loss)</b>	<b>\$ 238.4</b>	<b>\$ 336.5</b>	<b>\$ 415.3</b>	<b>\$ 461.9</b>	<b>\$ 340.8</b>	<b>\$ (164.5)</b>	<b>\$ 35.8</b>	<b>\$ 45.0</b>
Basic earnings(loss) per share	\$ 0.27	\$ 0.38	\$ 0.47	\$ 0.52	\$ 0.38	\$ (0.18)	\$ 0.04	\$ 0.05
Diluted earnings(loss) per share	\$ 0.26	\$ 0.37	\$ 0.45	\$ 0.50	\$ 0.38	\$ (0.18)	\$ 0.04	\$ 0.05
Number of shares used in calculating earnings per share (basic)	878.2	887.0	888.5	889.3	890.1	894.5	898.1	890.5
Number of shares used in calculating earnings per share (diluted)	933.5	934.5	934.0	942.4	951.5	894.5	905.1	898.1

**Table of Contents**

	Quarter ended (unaudited)							
	April 1, 2000	July 1, 2000	Sept. 30, 2000	Dec. 31, 2000	March 31, 2001	June 30, 2001	Sept. 29, 2001	Dec. 31, 2001
	(as a percentage of net revenues)							
Net revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of sales	(57.9)	(53.4)	(52.7)	(52.6)	(55.5)	(66.4)	(67.0)	(68.3)
Gross profit	42.1	46.6	47.3	47.4	44.5	33.6	33.0	31.7
Operating expenses:								
Selling, general and administrative	(9.4)	(9.4)	(8.5)	(8.8)	(9.2)	(11.4)	(10.3)	(9.7)
Research and development	(13.8)	(13.1)	(12.7)	(13.1)	(14.2)	(16.1)	(16.4)	(15.2)
Other income and expenses	(1.8)	(2.0)	(0.9)	0.2	0.4	1.4	(1.2)	(1.2)
Impairment and restructuring charges						(19.6)	(1.7)	(0.8)
Total operating expenses	(25.0)	(24.5)	(22.2)	(21.7)	(23.0)	(45.7)	(29.6)	(26.9)
Operating income (loss)	17.2	22.1	25.1	25.7	21.5	(12.1)	3.4	4.8
Net interest income (expense)	1.0	0.8	0.3	0.4	0.1		(0.3)	(0.8)
Equity in loss of joint ventures							(0.1)	(0.2)
Income (loss) before income taxes and minority interests	18.2	22.9	25.4	26.1	21.6	(12.1)	3.0	3.8
Income tax expense	(4.2)	(4.9)	(5.1)	(5.0)	(3.8)	1.8	(0.4)	(0.6)
Income (loss) before minority interests	14.0	18.0	20.3	21.1	17.8	(10.3)	2.6	3.2
Minority interests		(0.1)			(0.1)	(0.1)		(0.1)
Net income (loss)	14.0%	17.9%	20.3%	21.1%	17.7%	(10.4)%	2.6%	3.1%

(1) All share information has been adjusted to reflect the 3-for-1 stock split effected in May 2000.

*Net revenues.* We recorded net revenues for the fourth quarter 2001 of \$1,447.9 million with a decrease in net revenues of 33.9% versus the \$2,191.7 million of the fourth quarter 2000 net revenues, experiencing significant revenue decreases across all our product groups and our main geographic regions. We recorded a 3.4% sequential improvement over the \$1,400.7 million reported in the third quarter 2001, reflecting a more favorable product mix as well as the sales gains in computer peripherals and the continued growth of the wireless portion of our telecom business.

Third quarter 2001 net revenues were 31.4% below 2000 third quarter net revenues and showed an 11.8% sequential decrease over the second quarter of 2001 net revenues. Second quarter 2001 net revenues were 15.5% below second quarter 2000 net revenues and decreased sequentially by 17.4% compared to the first quarter of 2001 net revenues. First quarter 2001 net revenues were 12.9% above first quarter 2000 net revenues and decreased sequentially 12.3% compared to the fourth quarter of 2000 net revenues.

With respect to the product groups, the Memory Products Group net revenues in the 2001 fourth quarter decreased 40.1% in comparison to the 2000 fourth quarter, 2001 fourth quarter net revenues increased 2.5% in comparison to the 2001 third quarter net revenues, reflecting significant progress in sales of Smartcard products while Flash revenues were basically flat. In the 2001 fourth quarter, net revenues from the Telecommunications, Peripherals and Automotive Groups decreased 28.2% over the year

## Edgar Filing: STMICROELECTRONICS NV - Form 20-F

ago quarter, 2001 fourth quarter net revenues increased 4.4% sequentially over the third quarter 2001 net revenues, reflecting stronger sales of wireless telecommunications and hard disk drives, while sales of wireline telecommunications products continued to decrease. Net revenues for the Consumer and Microcontrollers Groups decreased 40.9% compared to the 2000 fourth quarter, 2001 fourth quarter net revenues were sequentially flat with a slight 0.7% increase versus the third quarter 2001 net revenues. Net revenues for the Discrete and Standard ICs Products Group decreased 31.0% in the 2001 fourth quarter over the 2000 fourth quarter, 2001 fourth quarter net revenues increased 5.3% sequentially over the third quarter 2001 net revenues.

---

**Table of Contents**

During the fourth quarter of 2001, net revenues from differentiated products totaled \$1,012.1 million, a 3.9% increase over the previous quarter, and accounted for 69.9% of fourth quarter 2001 revenues. In the 2000 fourth quarter, differentiated products net revenues equaled \$1,367.1 million and accounted for 62.4% of our net revenues.

In fourth quarter 2001, approximately 30.5% of our net revenues were realized in Europe, 17.6% in North America, 40.5% in Asia Pacific, 3.2% in Japan and 8.3% in Emerging Markets. All the major regions registered significant declines in revenues in fourth quarter 2001 versus fourth quarter 2000, with North America and Japan particularly impacted, due to the local unfavorable economic environment. Emerging Markets revenues increased 18.1% in the fourth quarter 2001 versus the fourth quarter 2000, also associated to the move of some customers' production facilities to low labor cost areas.

*Gross profit.* In the fourth quarter of 2001, gross profit was \$459.5 million, 55.8% below the year-ago period. Gross profit margin in the 2001 fourth quarter was 31.7%, representing a significant decline compared to 47.4% in the fourth quarter of 2000 penalized by the significant decrease in revenues, declining selling prices and lower utilization rates of our manufacturing facilities. Gross profit margin edged down slightly also on a sequential basis, compared to the third quarter of 2001, as a consequence of low utilization rates at our wafer-fabrication plants and some selective plant shut-downs associated with our inventory-reduction program. We were able to decrease inventory significantly in the fourth quarter compared to third quarter inventory levels and in line with our program.

*Selling, general and administrative expenses.* Selling, general and administrative expenses decreased 27.3%, from \$193.1 million in the fourth quarter of 2000 to \$140.3 million in the fourth quarter of 2001, reflecting the results of the actions taken by us to respond to the market downturn through the cost reduction of discretionary expenses and a general hiring freeze. As a percentage of net revenues, selling, general and administrative expenses increased from 8.8% in the fourth quarter of 2000 to 9.7% in the fourth quarter of 2001 due to the decrease in net revenues.

*Research and development expenses.* In the fourth quarter of 2001, research and development costs of \$220.8 million decreased 22.9% compared to the fourth quarter of 2000. The decrease in research and development was mainly due to lower spending in non-core activities and cost reduction in certain external development contracts. Research and development represented 15.2% of net revenues in the fourth quarter of 2001 compared to 13.1% of net revenues in the fourth quarter of 2000. The percentage increase resulted principally from the decrease in net revenues.

*Other income and expenses.* Other income and expenses showed income of \$4.1 million in the 2000 fourth quarter compared to expense of \$16.9 million in the 2001 fourth quarter. The change was due to higher start-up costs associated with the ramp up of our new 200mm facility in Singapore, partially offset by increased income from public funding received for our research and development programs.

*Impairment and restructuring charges.* In the fourth quarter of 2001, we recorded expenses of \$10.9 million relating to the severance costs and retention bonuses for plant employees during the closure of the facilities in Ottawa, Canada, and Rancho Bernardo, California. Any costs of relocating personnel from the facilities and for transferring equipment to other fabrication sites will be recognized as incurred during 2002. We did not record any such charges in 2000.

*Operating income.* Operating income was \$70.6 million in the fourth quarter of 2001, which represented a decrease of 87.5% compared to the \$563.2 million of the fourth quarter 2000. Operating income margin for the 2001 fourth quarter was 4.8% compared to 25.7% in the 2000 fourth quarter.

*Income tax expense.* Provision for income tax was \$9.3 million in the fourth quarter of 2001 compared to \$109.5 million in fourth quarter of 2000, primarily as a result of the decrease in income before income taxes and minority interests. Our accrued effective tax rate decreased from 19.1% in the fourth quarter of 2000 to 16.8% in the fourth quarter of 2001. Our tax rate is variable and depends on changes in the level of operating profits within various local jurisdictions and on changes in the applicable taxation rates of these jurisdictions. We currently enjoy certain tax benefits in some countries; as such benefits may not be available after 2001 due to changes in the local jurisdictions, our effective tax rate could increase in the coming years.

*Net income.* Net income for the 2001 fourth quarter declined significantly, decreasing 90.3% to \$45.0 million compared to \$461.9 million in the 2000 fourth quarter, and increased 25.7% compared to \$35.8 million in

## **Table of Contents**

the third quarter 2001. Diluted earnings per share decreased 90.0% to \$0.05 from \$0.50 in the fourth quarter 2000 and increased 25.0% from \$0.04 in the third quarter 2001. All per share figures have been adjusted to reflect the 3-for-1 stock split effected in May 2000.

### **Impact of Changes in Exchange Rates**

Our results of operations and financial condition can be significantly affected by changes in exchange rates between the U.S. dollar and other currencies, particularly the euro (with respect to prior periods, the Italian lira, the French franc, the German mark), the Japanese yen and other Asian currencies.

Revenues for certain products (primarily dedicated products sold in Europe and Japan) that are quoted in currencies other than the U.S. dollar are directly affected by fluctuations in the value of the U.S. dollar. Revenues for all other products, which are quoted in U.S. dollars and translated into local currencies for payment, tend not to be affected significantly by fluctuations in exchange rates except to the extent that there is a lag between changes in currency rates and adjustments in the local currency equivalent price paid for such products.

Certain significant costs incurred by us, such as manufacturing labor costs and depreciation charges, selling, general and administrative expenses, and research and development expenses, are incurred in the currencies of jurisdictions where our operations are located. Significant fluctuations in the value of these currencies, particularly the euro, compared to the U.S. dollar can affect our costs and therefore our profitability.

The appreciation in the U.S. dollar in 2001 compared to 2000 against the principal European and Asian currencies (excluding the Japanese yen, which appreciated compared to the U.S. dollar) that have a material impact on us resulted in a favorable impact on results of operations because of the favorable impact on cost of sales and operating expenses which exceeded the negative impact on net revenues.

Our principal strategies to reduce the risks associated with exchange rate fluctuations have been (i) to increase the proportion of sales to customers denominated in U.S. dollars, (ii) to purchase raw materials and services in transactions denominated in U.S. dollars (thereby reducing the exchange rate risk for costs relative to revenues, which are principally denominated or determined by reference to the U.S. dollar), and (iii) to manage certain other costs, such as financial costs, to maintain an appropriate balance between U.S. dollars and other currencies based upon the currency environment at the time. From time to time, we purchase or sell forward foreign currency exchange contracts and currency options to cover currency risk in obligations or receivables. We have not experienced significant gains or losses as a result of exchange coverage activities. Our management strategies to reduce exchange rate risks have served to mitigate, but not eliminate, the positive or negative impact of exchange rate fluctuations. Furthermore, the introduction of the euro as of January 1, 1999, has served to reduce the number of currencies whose exchange rate fluctuations versus the U.S. dollar may impact our results, thus making our exposure to exchange rate fluctuations more concentrated.

Assets and liabilities of subsidiaries are, for consolidation purposes, translated into U.S. dollars at the period-end exchange rate. See Note 2.3 to the Consolidated Financial Statements. Income and expenses are translated at the average exchange rate for the period. Adjustments resulting from the translation are recorded directly in shareholders' equity, and are shown as accumulated other comprehensive loss in the consolidated statements of changes in shareholders' equity. The balance sheet impact of such translation adjustments has been, and may be expected to be, significant from period to period.

At December 31, 2001, our outstanding indebtedness was denominated principally in U.S. dollars, Singapore dollars, and euro. See Note 15 to the Consolidated Financial Statements.

### **Liquidity and Capital Resources**

Treasury activities are regulated by our procedures, which define policies, objectives and controls. The policies focus on the management of our financial risk in terms of exposure to currency rates and interest rates. Our objectives are to neutralize our exposure to changes in exchange rates, to optimize the use of credit facilities and funds available, and to obtain the best possible market conditions for our financial and treasury operations. Our treasury controls include systematic reporting to senior management and are subject to internal audits. Most of our treasury activities are centralized, with any local treasury activities subject to oversight from our head treasury office. Basically all of our cash and cash equivalents are held in U.S. dollars and are placed with financial



---

**Table of Contents**

institutions rated A+ or higher. Marginal amounts are held in other currencies. Foreign currency operations and hedging transactions are performed only to cover commercial positions.

At December 31, 2001, cash and cash equivalents totalled \$2,438.8 million, compared to \$2,295.7 million at December 31, 2000, and \$1,823.1 million at December 31, 1999.

*Cash from operating activities.* The major sources of cash during 2001 and in prior years were cash provided by operating activities. Our net cash generated from operating activities totalled \$2,052.0 million in 2001 compared to \$2,422.8 million in 2000 and \$1,469.3 million in 1999.

Net income, adjusted for non-cash items, decreased 26.3% from \$2,588.2 million in 2000 to \$1,907.4 million in 2001, due to the strong decrease in net income in 2001, partially offset by the increase in depreciation and amortization and by the impact of impairment and restructuring charges recorded in 2001. In 2000, net income adjusted for non-cash items increased to \$2,588.2 million from \$1,402.3 million in 1999, mainly due to the significant increase in net income.

Change in our assets and liabilities resulted in \$144.6 million net cash provided in 2001, \$165.4 million net cash used in 2000 and \$67.0 million net cash provided in 1999. In 2001, the decrease in our trade accounts receivable associated with the reduction in our sales provided net cash of \$544.9 million; our reduced need for inventory provided net cash of \$93.6 million, while the decrease in our trade accounts payable associated with the decrease of our purchases of materials and services used \$444.8 million in cash. At December 31, 2001, we sold without recourse to financial institutions for \$139.3 million of receivables that were falling due in 2002.

*Cash used in investing activities.* Net cash used in investing activities was \$1,796.1 million in 2001 compared to \$3,558.2 million in 2000 and \$1,537.8 million in 1999. Major use of cash during 2001 and in prior years consisted primarily of capital spending for tangible assets while spending for investing activities was marginal.

Payment for purchases of tangible assets was \$1,699.8 million in 2001, decreasing significantly from \$3,327.5 million in 2000; in 1999, such payments accounted for \$1,347.5 million. Capital expenditures for 2001 were devoted principally to (i) the expansion of the our 200mm facility in Catania (Italy), (ii) the completion of construction of our new 200mm front-end wafer fabrication facility in Singapore, (iii) the upgrading of our 200mm front-end plant in Agrate (Italy), (iv) the upgrading of our 200mm front-end plants in Crolles and in Rousset (France) and (v) some limited expansion of the back-end facilities in Muar (Malaysia) and Bouskoura (Morocco). Major capital expenditures in 2000 and 1999 were associated with the expansion of our manufacturing facilities with two new 200mm wafer fabrication plants and a new back-end facility, and the upgrading of the other existing facilities.

In 2001, we used \$126.9 million in cash for other investing activities; we acquired Ravisent for approximately \$56 million and Veridicom for approximately \$4 million; we also paid approximately \$15 million for the formation of SuperH Inc., a joint venture with Hitachi, Ltd. In 2000 we used \$240.6 million in cash for other investing activities; we acquired from Nortel Networks its semiconductor business for approximately \$60 million; we also acquired Portland Group Inc., for approximately \$18 million, and Wafer Scale Integration, Inc. for approximately \$78 million. In 1999, we used \$190.3 million in cash for other investing activities; we acquired the Peripheral Technology Solutions group from Adaptec for approximately \$72 million, Vision Group plc for approximately \$41 million and Arithmos for approximately \$42 million.

*Cash from financing activities.* Net cash used by financing activities was \$98.1 million in 2001, whereas net cash provided by financing activities was \$1,616.2 million in 2000 and \$806.0 million in 1999.

During 2001, the proceeds from issuance of long-term debt, net of repayment, was \$123.3 million. During 2001, we paid cash dividends of \$35.8 million and repurchased 9,400,000 shares of our common stock totalling \$233.3 million to fund the latest stock option plan. We also received cash of \$44.1 million relating to the employee stock purchase plan and options exercised.

During 2000, we issued convertible bonds due 2010 that generated \$1,457.8 million. We also paid cash dividends of \$26.6 million and received cash of \$35.4 million relating to the employee stock purchase plan and options exercised.

**Table of Contents**

In 1999, our offerings of equity and convertible bonds due 2009 generated \$216.8 million and \$708.3 million, respectively. We also paid cash dividends of \$22.8 million and received cash of \$15.4 million relating to the employee stock purchase plan and options exercised.

*Net financial position.* Significant amounts of net cash generated from operating activities in 1999, 2000 and 2001, coupled with the convertible bond offering undertaken by us in November 2000 (\$1,457.8 million in net proceeds), and the equity and convertible bond offerings in September 1999 (\$216.8 million and \$708.3 million in net proceeds, respectively), enabled us to finance capital expenditures and further strengthen our balance sheet during the period.

We had a negative net financial position (cash, cash equivalents and marketable securities net of total debt) of \$456.6 million at December 31, 2001, compared to a negative net financial position of \$511.2 million at December 31, 2000, and a favorable net financial position of \$351.4 million at December 31, 1999.

At December 31, 2001, the aggregate amount of our long-term debt was approximately \$2,868.1 million, of which \$761.5 million consisted of zero-coupon convertible Liquid Yield Option Notes (LYONs) due 2009 and \$1,543.0 million of convertible bonds due 2010; additionally the aggregate amount of our short-term credit facilities was approximately \$994.6 million, under which approximately \$32.8 million of indebtedness was outstanding. At December 31, 2001, we had approximately \$96.5 million of long-term indebtedness that will become due within one year and expect to fund such debt repayments from available cash.

Debt payments due by period include:

	<u>Total</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>thereafter</u>
	(in millions of U.S.\$)						
Long-term debt	2,868.1	96.5	108.9	120.9	90.8	84.7	2,366.3

During 2001, certain holders of our 1998 and 1999 zero-coupon convertible Liquid Yield Option Notes (LYONs) requested conversion of the LYONs into our shares for approximately \$128.3 million principal amount at maturity. During second quarter 2001, we issued a redemption notice for the 1998 LYONs for a conversion into common shares and all the residual 1998 LYONs have been converted. As of the end of first quarter 2002, we had the following credit ratings on our remaining convertible debt:

	<u>Moody's Investors Services</u>	<u>Standard &amp; Poor's</u>
LYONs due 2009	Baa1	BBB+
Convertible bonds due 2010	A3	A-

In the event of a downgrade of these ratings, we believe we could continue to have access to sufficient liquidity.

*Commitments and contingencies.* Our commitments as of December 31, 2001 were as follows:

	<u>Payments due by period</u>						
	<u>Total</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>thereafter</u>
	(in millions of U.S.\$)						
Operating leases(1)	184.9	28.3	24.7	22.0	19.3	18.4	72.2
Purchase commitments(2)	711.7	605.8	54.3	51.6			
Contingent obligations(3)	55.1	30.0	25.1				
	<b>951.7</b>	<b>664.1</b>	<b>104.1</b>	<b>73.6</b>	<b>19.3</b>	<b>18.4</b>	<b>72.2</b>

(1) Operating leases are mainly related to building leases.

Edgar Filing: STMICROELECTRONICS NV - Form 20-F

- (2) Purchase obligations include primarily commitments for the purchase of equipment, purchase contracts for outsourced foundry wafers and for the purchase of software licenses.
- (3) Contingent obligations related to additional contractual amounts which could be paid for the manufacturing facility in Ottawa, Canada, acquired from Nortel Networks and for the joint venture with Hitachi, Ltd.

---

**Table of Contents**

*Financial outlook.* We currently expect that capital spending for 2002 will be in the range of \$1.2 billion, although we have the ability to adjust that amount up or down in response to the changes in market conditions. Capital expenditure for the first quarter 2002 were \$270.1 million. As of March 31, 2002, we had \$415 million in outstanding commitments for purchases of equipment. The most significant of our 2002 capital expenditure projects are expected to be (i) the upgrading of the 200mm front-end plant in Agrate (Italy) for the development of the new generation of technologies below 0.13 micron; (ii) the first stage of infrastructure construction of the 300mm front-end plant located in Crolles (France); (iii) the increase in capacity in our 200mm front-end plants in Rousset (France) and in Singapore; and (iv) the construction of the building for the new 300mm front-end plant in Catania (Italy). The new 300mm wafer research fabrication and pilot line at Crolles using 0.13 micron and below process technology is being constructed and will operate in partnership with Philips Semiconductors, Motorola and TSMC. We will continue to monitor our level of capital spending, however, taking into consideration factors such as trends in the semiconductor market, capacity utilization and announced additions.

We expect to have significant capital requirements in the coming years and intend to continue to devote a substantial portion of our net revenues to research and development. We plan to fund our capital requirements from cash from operations, available funds and available support from third parties (including state support), and may make recourse to borrowings under available credit lines and, to the extent necessary or attractive based on market conditions prevailing at the time, the sale of debt or additional equity securities. A substantial deterioration of our economic results and consequently of our profitability could generate a deterioration of the cash generated by our operating activities. Therefore, there can be no assurance that, in future periods, we will generate the same level of cash as in the previous years to fund our capital expenditures for expansion plans, our working capital requirements, research and development and industrialization costs. In addition, there can be no assurance that additional financing will be available as necessary, or that any such financing, if available, will be on terms acceptable to us.

We also expect to spend approximately \$288 million associated with the agreement signed to acquire Alcatel Microelectronics from Alcatel net of the resale of the mixed-signal business activities of Alcatel Microelectronics to Idaho-based AMI Semiconductors Inc.

We believe that our available funds, available support from third parties, and additional borrowings will be sufficient to meet our anticipated needs for liquidity through at least 2002.

**Impact of Recently Issued U.S. Accounting Standards**

In July 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 141, *Business Combinations* (FAS 141), which is applicable for all business combinations initiated after June 30, 2001. This statement eliminates the use of the pooling-of-interests methods and provides specific criteria for the recognition of intangible assets apart from goodwill. We have not entered into any business combinations, which would require the application of FAS 141.

In July 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets* (FAS 142), which will be effective for fiscal years beginning after December 15, 2001. FAS 142 primarily addresses the accounting that must be applied to goodwill and intangible assets subsequent to their initial recognition. In particular, the statement requires that goodwill and indefinite lived intangible assets no longer be amortized but be subject to annual impairment tests to determine the appropriate carrying value. FAS 142 also requires the reclassification of any intangible assets which do not meet the FAS 141 criteria for recognition separately from goodwill. We adopted the provisions of FAS 142 in the first quarter of 2002. In connection with the adoption of FAS 142, we reclassified \$2.8 million of our intangible assets to goodwill, which had a total carrying value after this reclassification of \$65.8 million at January 1, 2002. For our existing goodwill and the reclassified intangible assets, we will no longer record \$16.9 million of goodwill amortization in 2002, as would have been required prior to the adoption of FAS 142. Additionally, we performed the transitional impairment review required by FAS 142 and determined that no adjustment for impairment loss is required as a result of adopting the standard. For the period ended December 31, 2001 we evaluated intangible assets and goodwill under Statement of Financial Accounting Standards No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of* (FAS 121).

In August 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets* (FAS 144), effective for fiscal years beginning after December 15, 2001. This statement retains the requirements of FAS 121 to recognize an

---

**Table of Contents**

impairment loss only if the carrying amount of a long-lived asset is not recoverable from its undiscounted cash flows. We adopted the standards required by this statement in the first quarter of 2002. We believe that the adoption of FAS 144 has not had a material effect on our financial position or results of operations.

**Critical Accounting Policies Using Significant Estimates**

Our Operating and Financial Review and Prospects is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America ( U.S. GAAP ).

The preparation of our consolidated financial statements requires us to make estimates and assumptions that affect the amounts reported in the financial statements of assets, liabilities, revenues and expenses and of the disclosures of contingent assets and liabilities in the accompanying notes to the financial statements.

On an ongoing basis, we evaluate our estimates, including those related to volume rebates and price protection, product returns, bad debts, inventories, investments, carrying values of intangible and fixed assets, income taxes, restructuring, pensions, contingencies and litigation. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could differ from these estimates and may affect amounts reported in future periods.

We believe the following critical accounting policies affect our most significant judgments and estimates used in the preparation of our consolidated financial statements.

*Revenue recognition.* Revenues on sales of products are recognized upon transfer of the ownership of the goods, which usually occurs at shipment. A portion of our sales are made to distributors who participate in certain programs common in the semiconductor industry, whereby the distributors are allowed to return merchandise under certain circumstances and may receive future price reductions. Provision is made at the time of sale for estimated product returns and price protection, which may occur under the contracts we have with these customers. The provision is based on the latest historical data and expected market price evolution. If market conditions differ from our assumptions, there could be an impact in future periods; in particular, if the market conditions were to decline, this could result in a reduction of net revenues due to higher returns of products and price reductions at the time these adjustments will occur.

*Intangible assets.* Intangible assets include the cost of technologies and licenses purchased from third parties, amortized over a period ranging from three to seven years, and goodwill acquired in business combinations amortized up to 2001 over a period generally ranging between three to five years. From January 1, 2002, goodwill will be subject to an annual impairment test to determine the appropriate carrying value. The carrying value of intangibles is evaluated whenever changes in circumstances indicate the carrying amount may not be recoverable. In determining recoverability, we estimate the expected future cash flows associated with the intangible assets and compare this to the carrying value. Significant estimates used in determining the future cash flows include the applicable industry's evolution, our market penetration and the market acceptance of certain new technologies. Our evaluations are based on financial plans updated with the latest available projections of the semiconductor market evolution and our sales expectations. Future adverse change in market conditions or poor operating results of businesses acquired may require a further impairment of some intangible assets, in addition to those impairments made in 2001.

*Inventories.* Inventories are stated at the lower of cost or market. Cost is computed by adjusting standard cost to approximate actual manufacturing costs on a quarterly basis; the cost therefore depends on our manufacturing performances. In case of underutilization of our manufacturing facilities, the undercapacity cost is not included in the inventories valuation. Provisions are estimated for uncommitted inventories based on order backlog and the previous quarter's sales. To the extent that future negative market conditions generate order backlog cancellation and declining sales, this would require additional inventory write-down charges, negatively impacting cost of sales.

*Property, plant and equipment.* The carrying value of tangible assets is evaluated whenever changes in circumstances indicate the carrying amount may not be recoverable. In determining recoverability, we estimate the expected future cash flows associated with the property, plant and equipment and compare this to the carrying value.

**Table of Contents**

Significant estimates used in determining future cash flows include the industry evolution, the utilization of our fabrication facilities and the ability to upgrade such sites, changes in selling price and the adoption of new technologies. If the carrying value of a tangible asset were lower than the fair value, it may be impaired. Our evaluations are based on financial plans updated with the latest projections of the semiconductor market and of our sales expectations, from which we derive the future production needs and loading of our manufacturing facilities; these plans are highly variable due to the high volatility of the semiconductor business and therefore subject to continuous modifications. If the future evolution differs from the basis of our plans, both in terms of market evolution and production allocation to our manufacturing plants, this could require a further review of the carrying amount of our tangible assets for potential impairment, in addition to those impairments made in 2001.

*Patent and other intellectual property litigation.* We have from time to time received, and may in the future receive, communications alleging possible infringements of patents and similar intellectual property rights of others. We constantly monitor, with the support of our outside attorneys when deemed necessary or advisable, the chances of such intellectual property claims being successfully asserted. We will record a provision when we estimate that the claim could successfully be asserted, and in the absence of a valid offset or counterclaim. In the event of litigation, which is adversely determined with respect to our interests, or in the event we need to change our evaluation of a potential third party intellectual property claim, based on new evidence or communications, this could have a material adverse effect on our results of operations or financial condition at the time it were to materialize.

**Euro Conversion**

On January 1, 1999, eleven of the fifteen member countries of the European Union established fixed conversion rates between their existing national currencies and the euro. The participating countries agreed to adopt the euro as their common legal currency on that date. Until January 1, 2002, either the euro or a participating country's present currency (a national currency) was accepted as legal currency. On January 1, 2002, euro-denominated bills and coins were issued and national currencies were withdrawn from circulation shortly thereafter. During 2001, we successfully completed the change of our accounting systems from the use of local currencies to the use of the euro in all the European countries that have adopted the euro.

**Backlog and Customers**

Our backlog has decreased significantly since the end of 2000 due to the highly negative downturn in the semiconductor industry, which also produced an unprecedented high level of order cancellations. Because of this large reduction in our customer demand and backlog, during 2001 most of our manufacturing facilities operated below capacity; in addition, we closed some lines temporarily during the year, mainly at our most mature plants. Also, we have reduced the use of external front-end and back-end services. During the first quarter of 2002, net order flow accelerated, so that our backlog has increased from the level registered at the end of 2001.

In 2001, we had several large customers, with the Nokia group of companies being the largest and accounting for 19.3% of our revenues. Our top ten customers accounted for approximately 50% of net revenues. We cannot guarantee that such customers, or any other customer, will continue to generate revenues for us at the same levels. If we were to lose one or more of our key customers, or if they were to significantly reduce their bookings, or fail to meet their payment obligations, our operating results and financial condition could be adversely affected.

**Item 6. *Directors, Senior Management and Employees*****Directors and Senior Management*****Supervisory Board***

Our management is entrusted to the Managing Board under the supervision of the Supervisory Board. The Supervisory Board advises the Managing Board and is responsible for supervising the policies pursued by the Managing Board and the general course of our affairs and business. In fulfilling their duties under Dutch law, the members of the Supervisory Board must serve our interests and business.

The Supervisory Board consists of such number of members as is resolved by the general meeting of shareholders upon proposal of the Supervisory Board, with a minimum of six members. The members of the Supervisory Board are appointed upon proposal of the Supervisory Board by the general shareholders' meeting by a

**Table of Contents**

majority of the votes cast at a meeting where at least one-third of the outstanding share capital is present or represented.

Pursuant to the terms of various shareholders agreements of our principal indirect shareholder, ST Holding, effective through March 2004, the membership of our Supervisory Board must include three members designated by the French shareholders from the Board of Directors of FT1CI (a corporation jointly owned by Areva Group and France Telecom), and three members designated by the Italian shareholder. See Item 7. Major Shareholders and Related Party Transactions Shareholders Agreements . Our Supervisory Board currently includes three members who are not affiliated with ST Holding and its direct and indirect shareholders.

The members of the Supervisory Board appoint a Chairman and Vice-Chairman of the Supervisory Board from among the members of the Supervisory Board (with approval of at least three-quarters of the members of the Supervisory Board). Resolutions of the Supervisory Board require the approval of at least three-quarters of its members. The Supervisory Board must meet upon request by two or more of its members or by the Managing Board. The Supervisory Board has established procedures for the preparation of Supervisory Board resolutions and the calendar for Supervisory Board meetings. The Supervisory Board meets at least once a quarter to approve our quarterly and annual accounts and their release. Furthermore, the Supervisory Board has adopted internal regulations to clarify the manner by which it carries out the supervisory duties imposed upon it by law, our Articles of Association and resolutions of the shareholders and the Supervisory Board itself. By such resolution the Supervisory Board has authorized (i) the establishment of a secretariat (headed by an individual approved by it and appointed for a one-year renewable term) whose functions are to: (a) assist the Chairman and Vice-Chairman of the Supervisory Board in the operations of the Board, (b) implement and oversee the execution within our company of decisions adopted by the Supervisory Board, and (c) cooperate in and contribute to the execution of the functions of the designated Secretary and Assistant Secretary of the Supervisory Board; (ii) (a) the possibility for the Supervisory Board members to appoint assistants and (b) the appointment by the Supervisory Board of two controllers to exercise operational and financial control over our operations who, with assistants appointed by the Supervisory Board, will also review operation reports and the implementation of Supervisory Board decisions; and (iii) the establishment by the Supervisory Board of advisory committees.

Members of the Supervisory Board must retire no later than at the ordinary general meeting of shareholders held after a period of three years following their appointment, but may be re-elected. A member of the Supervisory Board must retire at the ordinary general meeting of shareholders held in the year in which he reaches the age prescribed by Dutch law for retirement of a supervisory director (currently at age 72). Members of the Supervisory Board may be suspended or dismissed by the general meeting of shareholders. The Supervisory Board may make a proposal to the general meeting of shareholders for the suspension or dismissal of one or more of its members. The members of the Supervisory Board may receive compensation if authorized by the general meeting of shareholders.

The shareholders agreement between the group of French shareholders and the Italian shareholder, as shareholders of ST Holding, also includes certain provisions requiring the approval of the Supervisory Board of ST Holding for certain actions by ST Holding, us and our subsidiaries. In addition, pursuant to the shareholders agreement among the group of French shareholders and a decree issued by certain Ministries of The Republic of France, the approval by members of the Supervisory Board appointed by the French shareholders of certain actions to be taken by us or our subsidiaries requires the approval of the Board of Directors of FT1CI and is subject to a veto by certain Ministries of The Republic of France. These requirements for the prior approval of various actions to be taken by us and our subsidiaries may give rise to a conflict of interest between our interests and the individual shareholders approving such actions, and may result in a delay in the ability of the Managing Board to respond as quickly as may be necessary in the rapidly changing environment of the semiconductor industry. Such approval process is subject to the provisions of Dutch law requiring members of the Supervisory Board to act independently in the supervision of our management.

**Table of Contents**

Following the renewal of all Supervisory Board members by our annual shareholders meeting held in Amsterdam on March 27, 2002, details of our Supervisory Board members are set forth below:

<b>Name</b>	<b>Position</b>	<b>Year Appointed(1)</b>	<b>Term Expires</b>	<b>Age</b>
Bruno Steve	Chairman	1989	2005	60
Jean-Pierre Noblanc	Vice-Chairman	1994	2005	63
Tom de Waard	Member	1998	2005	55
Rémy Dullieux	Member	1993	2005	51
Douglas Dunn	Member	2001	2005	58
Riccardo Gallo	Member	1997	2005	58
Francis Gavois	Member	1998	2005	66
Alessandro Ovi	Member	1994	2005	58
Robert M. White	Member	1996	2005	63

(1) As a member of the Supervisory Board

Bruno Steve has been a member of our Supervisory Board since 1989 and Chairman since March 27, 2002. He served as Vice-Chairman of the Supervisory Board from 1989 to July 1990 and from May 1999 through March 2002. From July 1990 to March 1993 and from June 1996 until May 1999, Mr. Steve served as Chairman of the Supervisory Board. He has been with I.R.I., a shareholder of Finmeccanica, Finmeccanica and other affiliates of I.R.I. in various senior positions for over 17 years. Mr. Steve is currently President of the board of statutory auditors of Alitalia S.p.a., Italia Express S.p.a. and Sigma S.p.A., Chairman of the Board of EEMS S.p.A., and member of statutory auditors of Stretto di Messina S.p.A. Until December 1999, he served as Chairman of MEI. He served as the Chief Operating Officer of Finmeccanica from 1988 to July 1997 and Chief Executive Officer from May 1995 to July 1997. He was Senior Vice President of Planning, Finance and Control of I.R.I. from 1984 to 1988. Prior to 1984, Mr. Steve served in several key executive positions at Telecom Italia, I.R.I.'s holding company for the telecommunications sector.

Jean-Pierre Noblanc is Vice-Chairman of our Supervisory Board. Mr. Noblanc was the Chairman of the Supervisory Board from May 1999 until March 2002, and has been a member of the Supervisory Board since 1994. He served as Vice-Chairman of the Supervisory Board from June 1996 to May 1999. Mr. Noblanc is presently Advisor to the CEO for the Components Sector of Areva Group (formerly known as CEA Industrie). Prior to joining Areva Group, Mr. Noblanc served at CNET, the Research Center of France Telecom, as Director of the Applied Research Center of Bagneux and of the Microelectronics Center of Grenoble. Mr. Noblanc holds a degree in engineering from the Ecole Supérieure d'Electricité and a doctoral degree in physical sciences from the University of Paris. Mr. Noblanc is a Member of the French Academy of Technology and serves on the Board of Directors of FT1CI and Picogiga S.A. He is also the Chairman of the Board of MEDEA+, an industry research and development program on microelectronics belonging to the EUREKA organization.

Tom de Waard was appointed to the Supervisory Board in 1998. Mr. de Waard was appointed chairman of the Audit Committee by the Supervisory Board in 1999. Mr. de Waard has been a partner of Clifford Chance, a leading English law firm, since March 2000. Prior to that, he was a partner at Stibbe, Simont, Monahan, & Duhot, where he held several positions since 1979 and gained extensive experience working with major international companies, particularly with respect to corporate finance. He is a member of the Amsterdam bar and received his law degree from Leiden University in 1979.

Rémy Dullieux has been a member of the Supervisory Board since 1993. Mr. Dullieux was chairman of the Audit Committee from 1996 to 1999. He is a graduate of the Ecole Polytechnique. Since June 1996, Mr. Dullieux has served as a France Telecom Executive Manager for the Northern and Eastern areas of France. From 1991 to June 1996, Mr. Dullieux served as Group Executive Vice President for Strategic Procurement and Development of France Télécom. From 1985 to 1988, Mr. Dullieux served as Regional Manager of Créteil. Mr. Dullieux also serves on the Board of Directors of FT1CI.

Douglas Dunn was appointed to the Supervisory Board in 2001. He is President and Chief Executive Officer of ASM Lithography Holding N.V. He was a member of the Managing Board of Royal Philips Electronics in 1998. From 1996 to 1998 he was Chairman and Chief Executive Officer of Philips Consumer Electronics and from 1993 to 1996 Chairman and Chief Executive Officer of Philips Semiconductors. From 1980 to 1993 he held various



---

## **Table of Contents**

positions at Plessey Semiconductors. Prior to 1980, Mr. Dunn served in executive positions at Motorola Semiconductors.

Riccardo Gallo was appointed to the Supervisory Board in 1997. He is Associate Professor of Industrial Economics at the Engineering Faculty of La Sapienza University in Rome. He has also been a member of the board of directors of Comitato Sir from 1981 until the present. From 1982 to 1991, he served as Director General at the Italian Ministry of the National Budget. In the early 1990s, he served as Vice-Chairman of I.R.I. In 1994, he was appointed by the Italian Minister of Industry as Extraordinary Commissioner of Fidia, a research-oriented pharmaceutical company.

Francis Gavois was appointed to the Supervisory Board in 1998. Mr. Gavois is the Chairman of the Supervisory Board of ODDO et Cie. He is also a member of the Board of Directors of Plastic Omnium, FT1CI and the Supervisory Board of the Consortium de Réalisation (CDR). From 1984 to 1997, Mr. Gavois held several positions, including Chairman of the Board of Directors and Chief Executive Officer of Banque Française du Commerce Extérieur (BFCE). Prior to that time Mr. Gavois held positions in the French government. He is *Inspecteur des Finances* and a graduate of the Institut d Etudes Politiques de Paris and the Ecole Nationale d Administration.

Alessandro Ovi has been a member of the Supervisory Board since 1994. He received a doctoral degree in Nuclear Engineering from the Politecnico in Milan and a masters degree in operations research from Massachusetts Institute of Technology. He currently serves on the boards Italtel, Carnegie Mellon University and Corporation Development Committee of the Massachusetts Institute of Technology. Until April 2000, Mr. Ovi was the Chief Executive Officer of Tecnitel S.p.A., a subsidiary of Telecom Italia Group. Prior to joining Tecnitel S.p.A., Mr. Ovi was the Senior Vice President of International Affairs and Communications at I.R.I.

Robert M. White was appointed to the Supervisory Board in June 1996. Mr. White is a University Professor and Director of the Data Storage Systems Center at Carnegie Mellon University and serves as a member of several corporate boards, including those of Ontrack Data Systems, Inc., and Read-Rite, Inc. He is a member of the U.S. National Academy of Engineering. From 1990 to 1993, Mr. White served as Under Secretary of Commerce for Technology in the United States Government. Prior to 1990, Mr. White served in several key executive positions at Xerox Corporation, Control Data Corporation and MCC. He received a doctoral degree in physics from Stanford University and graduated with a degree in physics from Massachusetts Institute of Technology.

### **Supervisory Board Committees**

*Audit Committee.* The Audit Committee was established in 1996 to assist the Supervisory Board in fulfilling its oversight responsibilities relating to corporate accounting, reporting practices, and the quality and integrity of our financial reports. Its primary duties and responsibilities according to its charter are to oversee:

- That our management has maintained the reliability and integrity of the accounting policies and financial reporting and disclosure practices;
- That our management has established and maintained processes to assure compliance with all applicable laws, regulations and corporate policy concerning financial accounting; and
- The independence and performance of our external auditors.

Our Audit Committee is composed of five Supervisory Board members, and meets at least five times annually, and more frequently as circumstances dictate. It is currently chaired by Mr. de Waard and also comprised of Messrs. Dunn, Gallo, Gavois and White.

During 2001, our Audit Committee reviewed and examined in cooperation with our auditors, the quarterly and annual accounts before their approval by the Supervisory Board and their release, as well as our auditing practices, litigation-related risks, execution of our auditors' recommendations regarding corporate auditing rules and the independence of our external auditors.

*Compensation Committee.* Our Compensation Committee approves the compensation for the sole member of our Managing Board. It also approves any increase in the incentive compensation component of our executive

---

## **Table of Contents**

officers. Finally, the Compensation Committee is informed of the compensation plans for our executive officers. It is currently comprised of the Chairman (Mr. Steve), the Vice-Chairman (Mr. Noblanc) and Mr. de Waard.

In 2001, following a proposal from the Managing Board, the Compensation Committee approved the increase in the number of employees who benefit from stock options. In addition, the Compensation Committee oversaw the plan to offer employees the opportunity semiannually, once in spring and once in autumn, to participate in share purchase plans.

*Strategic Committee.* Our Strategic Committee was instituted to monitor key developments within the semiconductor industry and our overall strategy, and is particularly involved in supervising the execution of significant transactions. Our Strategic Committee does not have a charter or regular meetings, but meets as often as is required by our ongoing business or any new significant opportunities. It is currently comprised of Messrs. Steve, Noblanc, Ovi and White.

In 2001, the Strategic Committee examined, together with the sole member of our Managing Board, every subject of material importance for us, particularly our growth plans and acquisitions opportunities, strategic partnerships, major license agreements and asset purchases.

### ***Managing Board***

Our management is entrusted to the Managing Board under the supervision of the Supervisory Board. Mr. Pasquale Pistorio, our President and Chief Executive Officer, is currently the sole member of the Managing Board. Following the renewal of his mandate by the annual general meeting of shareholders held in Amsterdam on March 27 2002, his present term expires in 2005. There is no mandatory retirement age for members of our Managing Board.

Under the Articles of Association, the Managing Board must obtain prior approval from the Supervisory Board for (i) all proposals to be submitted to a vote at the general meeting of shareholders; (ii) the formation of all companies, acquisition or sale of any participation, and conclusion of any cooperation and participation agreement; (iii) all of our multi-year plans and the budget for the coming year, covering investment policy, policy regarding research and development, as well as commercial policy and objectives, general financial policy, and policy regarding personnel; and (iv) all acts, decisions or operations covered by the foregoing and constituting a significant change with respect to decisions already taken by the Supervisory Board. The Managing Board must seek approval from the general meeting of shareholders for decisions relating to (i) the sale of all or of an important part of our assets or concerns; and (ii) all mergers, acquisitions or joint ventures which we wish to enter into and which the Supervisory Board considers to be of material significance. In addition, under the Articles of Association, the Supervisory Board may specify by resolution certain actions by the Managing Board that require its prior approval. Following the adoption of such a resolution, the actions by the Managing Board requiring such prior approval include the following: (i) modification of our Articles of Association; (ii) change in our authorized share capital, issue, acquisition or disposal of our own shares, change in any shareholder rights or issue of any instruments granting an interest in our capital or profits; (iii) liquidation or disposal of all or a substantial and material part of our assets or any shares we hold in any of our subsidiaries; (iv) entering into any merger, acquisition or joint venture agreement (and, if substantial and material, any agreement relating to intellectual property) or formation of a new company; (v) approval of such company's draft consolidated balance sheets and financial statements or any profit distribution by such company; (vi) entering into any agreement with any of the direct or indirect French or Italian shareholders outside the normal course of business; (vii) submission of documents reporting on (a) approved policy, expected progress and results and (b) strategic long-term business plans and consolidated annual budgets or any modifications to such; (viii) preparation of long-term business plans and annual budgets; (ix) adoption and implementation of such long-term business plans and annual budgets; (x) approval of all operations outside the normal course of business, including operations already provided for in the annual budget; and (xi) approval of the quarterly, semiannual and annual consolidated financial statements prepared in accordance with internationally accepted accounting principles. Such resolution also requires that the Managing Board obtain prior approval from the Supervisory Board for (i) the appointment of the members of the statutory management, administration and control bodies of our French and Italian subsidiaries; and (ii) the nomination of our statutory management, administration and control bodies and each of our other direct and indirect subsidiaries followed by confirmation to the Supervisory Board of such nominees' appointments. The general meeting of shareholders may also specify certain actions of the Managing Board that require shareholder approval. Our Articles of Association provide that the Managing Board must obtain shareholder approval prior to (i) the sale of all or an important part of our assets

**Table of Contents**

and concerns; and (ii) all mergers, acquisitions or joint ventures which we wish to enter into and which the Supervisory Board considers to be of material significance. However, during a meeting held on September 23, 2000, the Supervisory Board authorized the Managing Board to proceed with acquisitions without prior consent of the Supervisory Board subject to a maximum amount of \$25 million per transaction, provided the Managing Board keeps the Supervisory Board informed of progress regarding transactions and gives a full report once the transaction is completed. See Item 4. Information on the Company and Item 7. Major Shareholders and Related Party Transactions Related Party Transactions .

The Managing Board shall consist of such number of members as resolved by the general meeting of shareholders upon the proposal of the Supervisory Board. The members of the Managing Board are appointed for three-year terms upon proposal by the Supervisory Board at the general shareholders meeting by a majority of the votes cast at a meeting where at least one-third of the outstanding share capital is present or represented. The Supervisory Board appoints one of the members of the Managing Board to be chairman of the Managing Board for a three-year term (upon approval of at least three-quarters of the members of the Supervisory Board). Resolutions of the Managing Board require the approval of a majority of its members.

The general meeting of shareholders may suspend or dismiss one or more members of the Managing Board at a meeting at which at least one-half of the outstanding share capital is present or represented. No quorum is required if a suspension or dismissal is proposed by the Supervisory Board. The Supervisory Board may suspend members of the Managing Board, but a general meeting of shareholders must be convened within three months after such suspension to confirm or reject the suspension. The Supervisory Board shall appoint one or more persons who shall, at any time, in the event of absence or inability to act of all the members of the Managing Board, be temporarily responsible for our management.

**Table of Contents****Executive Officers**

Our executive officers support the Managing Board in its management of us, without prejudice to the Managing Board's ultimate responsibility. We are organized in a matrix structure with geographical regions interacting with product divisions, bringing all levels of management closer to the customer and facilitating communication among research and development, production, marketing and sales organizations. Our executive officers are:

<b>Name</b>	<b>Position</b>	<b>Years with Company(1)</b>	<b>Years in Semiconductor Industry</b>	<b>Age</b>
Pasquale Pistorio	President and Chief Executive Officer	22	38	66
Georges Auguste	Corporate Vice President, Total Quality and Environmental Management	15	28	53
Laurent Bosson	Corporate Vice President, Front-end Manufacturing	19	19	59
Carlo Bozotti	Corporate Vice President, Memory Products Group	25	25	49
Salvatore Castorina	Corporate Vice President, Discrete and Standard ICs Group	20	36	65
Andrea Cuomo	Corporate Vice President, Application Systems and Technology Group	19	19	48
Alain Dutheil	Corporate Vice President, Strategic Planning and Human Resources	19	32	57
Philippe Geyres	Corporate Vice President, Consumer and Microcontroller Group	18	26	50
Maurizio Ghirga	Corporate Vice President, Chief Financial Officer	19	19	64
Jean-Claude Marquet	Corporate Vice President, Asia/Pacific Region	16	35	60
Pier Angelo Martinotti	Corporate Vice President, New Ventures Group	21	34	61
Joël Monnier	Corporate Vice President, Central Research and Development	19	28	56
Piero Mosconi	Corporate Vice President, Treasurer	38	38	62
Carmelo Papa	Corporate Vice President, Emerging Markets	18	18	53
Richard Pieranunzi	Corporate Vice President, Americas Region	21	36	63
Aldo Romano	Corporate Vice President, Telecommunications, Peripherals and Automotive Group	37	37	61
Giordano Seragnoli	Corporate Vice President, Back-end Manufacturing and Subsystems Products Group	37	39	65
Keizo Shibata	Corporate Vice President, Japan Region	10	37	65
Enrico Villa	Corporate Vice President, European Region	34	34	61

(1) Including years with Thomson Semiconducteurs or SGS Microelettronica.

Pasquale Pistorio has more than 38 years of experience in the semiconductor industry. After graduating in Electrical Engineering from the Polytechnical University of Turin in 1963, he started his career selling Motorola products. Mr. Pistorio joined Motorola in 1967, becoming Director of World Marketing in 1977 and General Manager of the International Semiconductor Division in 1978. Mr. Pistorio joined SGS Microelettronica as President and Chief Executive Officer in 1980 and became our President and Chief Executive Officer upon our formation in 1987.

Georges Auguste has served as Corporate Vice President, Total Quality and Environmental Management since 1999. Mr. Auguste received a degree in engineering from the Ecole Supérieure d'Electricité (SUPELEC) in 1974 and a diploma in business administration from the Caen University in 1976. Prior to joining us, Mr. Auguste worked with Philips Components from 1974 to 1986, in various positions in the field of manufacturing. From 1990 to 1997 he headed our operations in Morocco, and from 1997 to 1999, Mr. Auguste served as director of Total Quality and Environmental Management.

Laurent Bosson has served as Corporate Vice President, Front-end Manufacturing and VLSI Fabs since 1989 and from 1992 to 1996 he was given additional responsibility as President and Chief Executive Officer of our operations in the Americas. Mr. Bosson remains Chairman of the Board of STMicroelectronics Inc., our affiliate in



**Table of Contents**

the United States. Mr. Bosson received a Masters degree in Chemistry from the University of Dijon in 1969. He joined Thomson-CSF in 1964 and has held several positions in engineering and manufacturing. In 1982, Mr. Bosson was appointed General Manager of the Tours and Alençon facilities of Thomson Semiconducteurs. In 1985, he joined the French subsidiary of SGS Microelettronica as General Manager of the Rennes, France manufacturing facility.

Carlo Bozotti has served as Corporate Vice President, Memory Products since August 1998. Mr. Bozotti joined SGS Microelettronica in 1977 after graduating in Electronic Engineering from the University of Pavia. Mr. Bozotti served as Product Manager for the Industrial, Computer Peripheral and Telecom divisions and as Product Manager for the Monolithic Microsystems Telecom business unit from 1986 to 1987. He was appointed Director of Corporate Strategic Marketing and Key Accounts for the Headquarters Region in 1988 and became Vice President, Marketing and Sales, Americas Division in 1991. Mr. Bozotti has served as Corporate Vice President, Memory Products since August 1998, after having served as Corporate Vice President, Europe and Headquarters Region from 1994 to 1998.

Salvatore Castorina has served as Corporate Vice President, Discrete and Standard ICs Group since 1989. Mr. Castorina received his engineering degree in Electronics from the Polytechnical University of Turin and began his career as a teacher of electrical and electronic technologies prior to joining Thomson-CSF in Milan in 1965. In 1967, he joined Motorola Semiconductors and held various positions in sales and marketing. In 1981, Mr. Castorina joined us as General Manager of Transistors in Catania and became the General Manager of our Discrete Division in 1989.

Andrea Cuomo has served as Corporate Vice President Application System Technology Group since 2002. After graduating at Milano Politecnico in Nuclear Sciences, with a special focus on analog electronics, Mr. Cuomo joined us in 1983 as a System Testing engineer, and from 1985 to 1989 held various positions to become Marketing Manager in the automotive, computer and industrial product segment. In 1989, Andrea Cuomo was appointed Director of Strategy and Market Development for the Dedicated Products Group, and in 1994 became Vice President responsible for Marketing and Strategic Accounts within the Headquarters Region. In 1998 Mr Cuomo was appointed as Vice President responsible for Advanced System Technology.

Alain Dutheil has served as Corporate Vice President, Strategic Planning and Human Resources since 1994 and 1992, respectively. After graduating in Electrical Engineering from the Ecole Supérieure d Ingénieurs de Marseilles (ESIM), Mr. Dutheil joined Texas Instruments in 1969 as a Production Engineer, becoming Director for Discrete Products in France and Human Resources Director for Texas Instruments, France in 1980 and Director of Operations for Texas Instruments, Portugal in 1982. He joined Thomson Semiconducteurs in 1983 as General Manager of a plant in Aix-en-Provence, France and then became General Manager of our Discrete Products Division. From 1989 to 1994, Mr. Dutheil served as Director for Worldwide Back-end Manufacturing, in addition to serving as Corporate Vice President for Human Resources from 1992 until the present.

Philippe Geyres has served as Corporate Vice President, General Manager Consumer and Microcontroller Group (formerly Programmable Products Group) since 1990. Mr. Geyres graduated from the École Polytechnique in 1973 and began his career with IBM in France before joining Schlumberger Group in 1980 as Data Processing Director. He was subsequently appointed Deputy Director of the IC Division at Fairchild Semiconductors. Mr. Geyres joined Thomson Semiconducteurs in 1983 as Director of the Bipolar Integrated Circuits Division. He was appointed Strategic Programs Director in 1987 and, later the same year, became our Corporate Vice President, Strategic Planning until 1990.

Maurizio Ghirga became Corporate Vice President, Chief Financial Officer in 1987, after having served as chief financial controller of SGS Microelettronica since 1983. Mr. Ghirga has a degree in Business Administration from the University of Genoa. He spent more than ten years of his career in various financial capacities at ESSO Company (an Exxon subsidiary in Italy) and prior to joining us was Financial Controller of one of the largest refinery plants in Italy and of an ESSO chemical subsidiary.

Jean-Claude Marquet has served as Corporate Vice President, Asia/Pacific Region since July 1995. After graduating in Electrical and Electronics Engineering from the Ecole Breguet Paris, Mr. Marquet began his career in the French National Research Organization and later joined Alcatel. In 1969, he joined Philips Components. He remained at Philips until 1978, when he joined Ericsson, eventually becoming President of Ericsson's French operations. In 1985, Mr. Marquet joined Thomson

**Table of Contents**

Semiconducteurs as Vice President Sales and Marketing, France. Thereafter, Mr. Marquet served as Vice President Sales and Marketing for France and Benelux, and Vice President Asia Pacific and Director of Sales and Marketing for the region.

Pier Angelo Martinotti has served as Corporate Vice President, General Manager New Ventures Group since 1994. A graduate in Electronic Engineering from the Polytechnical University of Turin, Mr. Martinotti began his career with us in 1965 as an Application and Marketing Engineer. In 1968, he joined Motorola Semiconductors in the area of strategic marketing in Europe, and in 1975 became the Marketing (Sales) Director for Europe. From 1986 to 1990, Mr. Martinotti was Chief Executive Officer of Innovative Silicon Technology, our former subsidiary. Mr. Martinotti was appointed Director of Corporate Strategic Planning in 1990, a position which he occupied until 1994.

Joël Monnier has served as Corporate Vice President, Director of Central Research and Development since 1989. After graduating in Electrical Engineering from the Institut National Polytechnique of Grenoble, Ecole Nationale Supérieure de Radio Electricité, Mr. Monnier obtained a doctoral degree in microelectronics at LETI/CENG. He began his career in the semiconductor industry in 1968 as a researcher with CENG, and subsequently joined the research and development laboratories of Texas Instruments in Villeneuve Loubet, France and Houston, Texas, eventually becoming Engineering Manager and Operation Manager at Texas Instruments. Mr. Monnier joined Thomson-CSF in 1983 as head of the research and manufacturing unit of Thomson Semiconducteurs. In 1987, he was appointed Vice President and Corporate Director of Manufacturing, a position which he occupied until 1989.

Piero Mosconi has served as Corporate Vice President, Treasurer since 1987. After graduating in accounting from Monza in 1960, Mr. Mosconi joined the faculty at the University of Milan. Mr. Mosconi worked with an Italian bank before joining the Foreign Subsidiaries Department at SGS Microelettronica in 1964 and becoming Corporate Director of Finance in 1980.

Carmelo Papa has served as Corporate Vice President, Emerging Markets since January 2000. Mr. Papa received his degree in nuclear physics at Catania University. Mr. Papa joined us in 1983 and since 1986 has been Director of Product Marketing and Customer Service for Transistors and Standard ICs. During this time, he has overseen a substantial growth both in the product portfolio and the sales volume. He has also played a key role both in the expansion of our facility in Catania, Italy, from its origin as a low-cost assembly plant to its present position as one of our most important and dynamic centres, hosting advanced R&D in areas ranging from process technology to fuzzy logic and other soft computing disciplines, leading-edge wafer manufacturing and Sales and Marketing HQ for our Discrete and Standard Circuits division.

Richard Pieranunzi has served as Corporate Vice President, Americas Region since August 1996. Mr. Pieranunzi received his BSEE from the University of Rhode Island, and started his career in process engineering. Later, he joined Motorola's international marketing organization, including in Europe where he held management positions in sales and strategic marketing and applications. Mr. Pieranunzi joined SGS Semiconducteurs in 1981 as Marketing and Sales Manager and, upon our formation in 1987, he became Vice President Marketing and Sales for the U.S. organization. For three years, Mr. Pieranunzi headed our Corporate Strategic Marketing and Corporate Key Account programs.

Aldo Romano has served as Corporate Vice President, General Manager Telecommunications, Peripherals and Automotive Group (formerly Dedicated Products Group) since 1987. Mr. Romano is also Managing Director of our Italian subsidiary. A graduate in Electronic Engineering from the University of Padua in 1963, Mr. Romano joined SGS Microelettronica in 1965 as a designer of linear ICs, becoming head of the linear IC design laboratory in 1968 and head of Marketing and Applications in 1976. Mr. Romano became Director of the Bipolar IC Division (which has evolved into the Dedicated Products Group) in 1980.

Giordano Seragnoli has served as Corporate Vice President, General Manager Subsystems Products Group since 1987 and since 1994, Director for Worldwide Back-end Manufacturing. After graduating in Electrical Engineering from the University of Bologna, Mr. Seragnoli joined the Thomson Group as RF Application Designer in 1962 and joined SGS Microelettronica in 1965. Thereafter, Mr. Seragnoli served in various capacities within our management, including Strategic Marketing Manager and Subsystems Division Manager, Subsystems Division Manager (Agrate), Technical Facilities Manager, Subsystems Division Manager and Back-End Manager.

## **Table of Contents**

Keizo Shibata has served as Corporate Vice President and President of our Japanese subsidiary since 1992. Mr. Shibata obtained bachelors and masters degrees in Engineering from Osaka University and has 32 years of experience in the semiconductor industry. Prior to joining us, Mr. Shibata was employed with Toshiba Corporation since 1964 in various capacities. From 1987 to 1988, Mr. Shibata served as Chairman of both World Semiconductor Trade Statistics and the Trade Policy Committee of the Electric Industry Association of Japan.

Enrico Villa has served as Corporate Vice President, Europe since January 1, 2000. Mr. Villa has served in various capacities within our management since 1968 after obtaining a degree in Business Administration from the University of Genoa and has 31 years of experience in the semiconductor industry. He is currently a member of the European Electronics Component Association (EECA) for which he is now Chairman of the European Semiconductor Council as well as Chairman for Europe at the Joint Steering Committee of the World Semiconductor Council.

As is common in the semiconductor industry, our success depends to a significant extent upon, among other factors, the continued service of its key senior executives and research and development, engineering, marketing, sales, manufacturing, support and other personnel, and on our ability to continue to attract, retain and motivate qualified personnel. The competition for such employees is intense, and the loss of the services of any of these key personnel without adequate replacement or the inability to attract new qualified personnel could have a material adverse effect on us. We do not maintain insurance with respect to the loss of any of our key personnel.

## **Compensation**

The aggregate compensation paid in 2001 to the members of our Supervisory Board by us was approximately \$500,000. The amount of compensation paid in 2001 to our executive officers and members of our Managing Board as a group by us was approximately \$8.7 million.

In 1989, we established a Corporate Executive Incentive Program (the EIP) that entitles selected executives and members of the Managing Board to a yearly bonus based upon the individual performance of such executives. The maximum bonus awarded under the EIP is based upon a percentage of the executive or member's salary and is adjusted to reflect our overall performance. The participants in the EIP must satisfy certain personal objectives that are focused on customer service, profit, cash flow and market share.

For information regarding stock options granted to members of our Supervisory Board, the Managing Board and our executive officers please refer to "Stock Option Plans" below.

The executive officers and the Managing Board were also covered in 2001 under certain group life and medical insurance programs provided by us. The aggregate additional amount set aside by us in 2001 to provide pension, retirement or similar benefits for executive officers and our Managing Board as a group is estimated to have been approximately \$3.5 million, which includes statutory employer contributions for state-run retirement and similar benefit programs. We do not have any service agreements with members of our Supervisory Board, the Managing Board or our executive officers that provide for benefits upon termination of employment, beyond their legal entitlement in accordance with applicable employment laws.

## **Share Ownership**

None of the members of our Supervisory and Managing Boards or our executive officers holds more than 1% of our shares.

## **Stock Option Plans**

The following description of our stock options plans has been adjusted for the 2:1 stock split effected on June 16, 1999 and the 3:1 stock split effected on May 5, 2000. Taking into account these stock splits, the total options outstanding as of March 31, 2002 give the right to acquire 37,551,294 common shares by our employees and 492,500 common shares by members and professionals of our Supervisory Board, or a total of 38,043,794 shares. In addition, and as set forth below, on April 25, 2002, we granted options to purchase a further 9,580,560 common shares to our employees, and a further 132,000 common shares to members and professionals of our Supervisory Board.



---

**Table of Contents**

On October 20, 1995, our shareholders approved resolutions authorizing the Supervisory Board for a period of five years to adopt and administer a stock option plan that provides for the granting to our managers and professionals of options to purchase up to a maximum of 33.0 million common shares (the 1995 Stock Option Plan ). We granted options to acquire a total of 31,561,941 shares pursuant to the 1995 Stock Option Plan as follows:

- On March 1, 1996, we granted options to purchase 7,200,000 common shares with an exercise price per common share of \$6.04, which will expire on March 1, 2004. As of March 31, 2002, options to purchase 2,319,190 common shares were outstanding, of which 544,700 were held by the sole member of the Managing Board and our executive officers, as a group.
- On September 12, 1997, we granted options to purchase 3,873,000 common shares with an exercise price per common share of \$14.23, which will expire on September 12, 2005. As of March 31, 2002, options to purchase 2,992,980 common shares were outstanding, of which 736,800 were held by the sole member of the Managing Board and our executive officers, as a group.
- On July 28, 1998, we granted options to purchase 3,900,000 common shares with an exercise price per common share of \$12.03, which will expire on July 28, 2006. As of March 31, 2002, options to purchase 3,608,595 common shares were outstanding, of which 1,020,840 were held by the sole member of the Managing Board and our executive officers, as a group.
- On September 16, 1999, we granted options to purchase 8,878,200 common shares with an exercise price per common share of \$24.88, which will expire on September 16, 2007. As of March 31, 2002, options to purchase 8,431,260 common shares were outstanding, of which 1,772,400 were held by the sole member of the Managing Board and our executive officers, as a group.
- On January 24, 2000, we made a special grant of options to purchase 150,000 common shares to former employees of Arithmos with an exercise price per common share of \$55.25, which expire on January 24, 2008. As of March 31, 2002, options to purchase 81,900 common shares were outstanding pursuant to this grant.
- On June 16, 2000, we granted options to purchase 5,331,250 common shares with an exercise price per common share of \$62.01, which will expire on June 16, 2008. As of March 31, 2002, options to purchase 5,069,410 common shares were outstanding, of which 712,000 were held by the sole member of the Managing Board and our executive officers, as a group.
- On September 18, 2000, we made a special grant of options to purchase 70,000 common shares to former employees of Waferscale Integration Inc. with an exercise price per common share of \$52.88, which will expire on September 18, 2008. As of March 31, 2002, options to purchase 53,700 common shares were outstanding.
- On December 11, 2000, we granted options to purchase 2,019,640 common shares with an exercise price per common share of \$50.69, which will expire on December 11, 2008. As of March 31, 2002, options to purchase 1,841,320 common shares were outstanding, none of which were held by the sole member of the Managing Board and our executive officers, as a group.
- On December 18, 2000, we made a special grant of options to purchase 26,501 common shares to former employees of PGI with an exercise price per common share of \$44.00, which will expire on December 18, 2008. As of March 31, 2002, options to purchase 26,501 common shares were outstanding.
- On March 1, 2001, we made a special grant of options to purchase 113,350 common shares with an exercise price per common share of \$31.65, which will expire on March 1, 2009. As of March 31, 2002, options to purchase 104,710 common shares were outstanding, none of which were held by the sole member of the Managing Board and our executive officers, as a group.

On April 25, 2001, our shareholders approved resolutions authorizing the Supervisory Board for a period of five years to adopt and administer a new stock option plan that provides for the granting to our managers and professionals of options to purchase up to a maximum of 60 million common shares (the 2001 Stock Option Plan ).

---

**Table of Contents**

We granted options to acquire a total of 22,865,063 common shares pursuant to the 2001 Stock Option Plan as follows:

- On April 27, 2001, our Supervisory Board authorized the granting of options to purchase 9,521,100 common shares with an exercise price per common share of \$39.00, which will expire on April 27, 2011. As of March 31, 2002, options to purchase 9,259,125 common shares were outstanding, of which 981,000 were held by the sole member of the Managing Board and our executive officers, as a group.
- On September 4, 2001, we made a special grant of options to purchase 16,000 common shares with an exercise price per common share of \$29.70, which will expire on September 4, 2011. As of March 31, 2002, options to purchase 16,000 common shares were outstanding, none of which were held by the sole member of the Managing Board and our executive officers, as a group.
- On November 1, 2001, we made a special grant of options to purchase 61,900 common shares with an exercise price per common share of \$29.61, which will expire on November 1, 2011. As of March 31, 2002, options to purchase 61,100 common shares were outstanding, none of which were held by the sole member of the Managing Board and our executive officers, as a group.
- On January 2, 2002, we made a special grant of options to purchase 29,400 common shares with an exercise price per common share of \$33.70, which will expire on January 2, 2012. As of March 31, 2002, options to purchase 29,400 common shares were outstanding, none of which were held by the sole member of the Managing Board and our executive officers, as a group.
- On January 25, 2002, we made a special grant of options to purchase 3,656,103 options with an exercise price per common share of \$31.09, which will expire on January 25, 2012. As of March 31, 2002, options to purchase 3,656,103 common shares were outstanding, of which 355,000 were held by the sole member of the Managing Board and our executive officers, as a group.
- On April 25, 2002, we granted options to purchase 9,580,560 common shares with an exercise price per common share of \$31.11, which will expire on April 25, 2012. Options to purchase 9,580,560 common shares were outstanding, of which 916,000 were held by the sole member of the Managing Board and our executive officers, as a group.

As of March 31, 2002, of the total options outstanding under the 1995 and 2001 Stock Option Plans, options to purchase 7,038,740 common shares were held by the sole member of the Managing Board and executive officers, as a group.

In June 1996, the general meeting of shareholders approved the granting of options to members and professionals of the Supervisory Board for the right to purchase approximately 378,000 of our common shares over a period of three years, beginning in 1996. Following this grant, certain persons have renounced the right to retain the stock options granted to them. The following options were granted to members and professionals of our Supervisory Board:

- On October 22, 1996, we granted to members and professionals of the Supervisory Board options to purchase 198,000 common shares with an exercise price per common share of \$9.00, which will expire on October 22, 2004. As of March 31, 2002, options to purchase 57,000 common shares were outstanding.
- On September 12, 1997, we granted to members and professionals of the Supervisory Board options to purchase 90,000 common shares with an exercise price per common share of \$14.23, which will expire on September 12, 2005. As of March 31, 2002, options to purchase 30,500 common shares were outstanding.
- On July 28, 1998, we granted to members and professionals of the Supervisory Board options to purchase 103,500 common shares with an exercise price per common share of \$12.03, which will expire on July 28, 2006. As of March 31, 2002, options to purchase 45,000 common shares were outstanding.

**Table of Contents**

In 1999, the general meeting of the shareholders voted to renew the Supervisory Board Option Plan to grant members of the Supervisory Board, during the three-year period 1999-2001, at least the same number of options as were granted during the first three-year period. The following options were granted:

- On September 16, 1999, we granted options to members and professionals of the Supervisory Board to purchase 180,000 common shares with an exercise price per common share of \$24.88, which will expire on September 16, 2007. As of March 31, 2002, options to purchase 171,000 common shares were outstanding.
- On June 16, 2000, we granted options to members and professionals of the Supervisory Board to purchase 103,500 common shares with an exercise price per common share of \$62.01, which will expire on June 16, 2008. As of March 31, 2002, options to purchase 90,000 common shares were outstanding.
- On April 27, 2001, we granted options to members and professionals of the Supervisory Board to purchase 112,500 common shares with an exercise price per common share of \$39.00, which will expire on April 27, 2009. As of March 31, 2002, options to purchase 99,000 common shares were outstanding.

On March 27, 2002, the annual general meeting of shareholders voted to renew the Supervisory Board Option Plan whereby members of the Supervisory Board may receive, during the three-year period 2002-2005, at least the same number of options as were granted during the first three-year period. The following options were granted:

- On April 25, 2002, we granted options to members and professionals of the Supervisory Board to purchase 132,000 common shares with an exercise price per common share of \$31.11, which will expire on April 25, 2012.

As of March 31, 2002, of the total options outstanding under the 1996 and 1999 Supervisory Board Option Plans, options to purchase 492,500 common shares were outstanding. Options to purchase 120,000 common shares are outstanding under the 2002 Supervisory Board Option Plan.

**Table of Contents****Employees**

The tables below set forth the breakdown of employees by main category of activity and geographic area for the past three years.

	At December 31,		
	1999	2000	2001
France	7,200	9,600	8,950
Italy	7,650	9,200	9,300
Rest of Europe	850	1,050	1,050
United States	3,250	4,350	3,500
Malta and Morocco	6,000	7,450	6,700
Asia	9,550	12,000	10,800
<b>Total</b>	<b>34,500</b>	<b>43,650</b>	<b>40,300</b>

	At December 31,		
	1999	2000	2001
Research and Development	5,350	6,800	6,850
Marketing and Sales	1,900	2,250	2,200
Manufacturing	23,800	30,450	27,250
Administration and General Services	1,800	2,200	2,100
Divisional Functions	1,650	1,950	1,900
<b>Total</b>	<b>34,500</b>	<b>43,650</b>	<b>40,300</b>

Our future success, in particular in a period of strong increased demand will also depend on our ability to continue to attract, retain and motivate highly qualified technical, marketing, engineering and management personnel. Unions are present in France, Italy, Malta, Morocco and Singapore. We have not experienced any significant strikes or work stoppages in recent years, other than in connection with national strikes, and management believes that our relations with employees are good.

As part of our commitment to the principles of TQEM, we decided in July 1994 to develop an internal education organization called ST University, responsible for organizing training courses to executives, engineers, technicians and sales personnel within STMicroelectronics and coordinating all training for our employees.

We have also established an Employee Stock Purchase Plan that includes the following provisions:

- A total of 4.5 million common shares are to be offered to employees of STMicroelectronics N.V. and its majority-owned subsidiaries in 20 specified countries and such other countries to which the Supervisory Board may extend the Plan, on the recommendation of our Managing Board.
- The first 2.5 million common shares offered will be new shares. The source of the remaining 0.5 million common shares is to be decided by the Supervisory Board in due course.
- The Plan has a three-year term, from 2000 to 2003, and features semiannual offering periods.
- For each offering period, the subscription price will be equal to 85% of the lesser of the NYSE closing price for shares on the first day of the offering period and the last day of the offering period.
- The maximum fair value of the common shares that may be subscribed per employee per offering period is \$12,500.

## Edgar Filing: STMICROELECTRONICS NV - Form 20-F

To date, the first three tranches of the Employees Stock Purchase Plan have been launched. In November 2000, 559,929 common shares were subscribed by 4,830 employees at a price of \$38.675 per common share. In May 2001, 580,817 common shares were subscribed by 3,701 employees at a price of \$32.32 per common share. In December 2001, 384,566 common shares were subscribed by 2084 employees at a price of \$28.60 per common share.

**Table of Contents****Item 7. Major Shareholders and Related Party Transactions****Major Shareholders**

The following table sets forth certain information with respect to the ownership of our common shares issued and outstanding as of May 6, 2002.

<u>Shareholders</u>	<u>Common shares Owned(1)</u>	
	<u>Number</u>	<u>%</u>
STMicroelectronics Holding II B.V. ( ST Holding II )	320,483,280	36.2

- (1) Following the 2:1 stock split and 3:1 stock split effected by us on June 16, 1999, and May 5, 2000, respectively, and including 30 million shares of our shares held in an escrow account underlying the France Telecom exchangeable notes, which will be exchangeable for our common shares from January 2, 2004.

ST Holding II is a wholly owned subsidiary of STMicroelectronics Holding N.V. ( ST Holding ). ST Holding is jointly held by FT1CI and Finmeccanica based on voting rights. Based on economic interests, FT1CI and Finmeccanica hold approximately 49% and 51% respectively, of ST Holding. FT1CI consists of two principal French shareholders, France Telecom, the French state-controlled telecommunications company, and Areva (formerly known as CEA-Industrie), a corporation controlled by the French atomic energy commission. Finmeccanica is an Italian holding company owned by both the Italian Ministry of Treasury, which controls important actions of Finmeccanica due to its significant holding in it, Istituto per la Ricostruzione Industriale-IRI S.p.A. *in liquidazione* ( I.R.I. , the holding company for Italian state-owned industrial and commercial interests) and the public. Finmeccanica is listed on the Italian Mercato Telematico Azionario ( *Telematico* ) and is included in the MIB 30 stock index. The Italian Ministry of Treasury has appointed a majority of the members of Finmeccanica's Board of Directors and pursuant to the provisions of its articles of association and Italian law, retains veto rights over certain major transactions involving Finmeccanica. The shares of France Telecom are listed on Euronext Paris and its American Depositary Receipts on the New York Stock Exchange. *Certificats d'investissement* of Areva are listed on Euronext Paris.

In December 2001, France Telecom issued exchangeable notes redeemable by way of exchange for our common shares after January 2, 2004, representing 3.39% of our current issued and outstanding common shares. At May 6, 2002, and assuming the France Telecom exchangeable notes are exchanged for our common shares at the initial exchange ratio, which in any case shall not take place before January 2, 2004, ST Holding II would own approximately 32.8% of our current issued and outstanding common shares. Making the same assumptions, the indirect economic interests of Areva, France Telecom and Finmeccanica in us would be approximately 11.3%, 2.9% and 18.6%, respectively.

---

**Table of Contents**

The chart below illustrates the current shareholding structure as of May 6, 2002:

- 
- (1) Ministero del Tesoro del Bilancio e della Programmazione Economica-Dipartimento del Tesoro.
  - (2) Based on voting rights. Voting rights will be shared equally until 2004.

All other former members of the shareholding group have either sold or otherwise disposed of their holdings in our shares.

***Shareholders Agreements***

In connection with our formation, Thomson-CSF and STET (now called Telecom Italia S.p.A.) as our shareholders, entered into a shareholders agreement on April 30, 1987 (as amended, the Holding Shareholders Agreement ). The current parties to the Holding Shareholders Agreement are FT1CI and Finmeccanica.

The Holding Shareholders Agreement contemplates that the parties shall agree upon common proposals and jointly exercise their powers of decision and their full control of the strategies and actions of ST Holding and us. Under the Holding Shareholders Agreement, the Supervisory Board of ST Holding, which is composed of three representatives of FT1CI and three representatives of Finmeccanica, and our Supervisory Board, each one within its respective sphere of competence, must give their respective prior approval before we, ST Holding, or any of our subsidiaries may: (i) modify our articles of incorporation; (ii) change our authorized share capital, issue, acquire or dispose of our shares, change any shareholder rights or issue any instruments granting an interest in our capital or profits; (iii) be liquidated or dispose of all or a substantial and material part of our assets or any shares we hold in any of our subsidiaries; (iv) enter into any merger, acquisition or joint venture agreement (and, if substantial and material, any agreement relating to intellectual property) or form a new company; (v) approve such company's draft consolidated balance sheets and financial statements or any profit distribution by such company; or (vi) enter into any agreement with any of the direct or indirect ST Holding shareholders outside the normal course of business. The Holding Shareholders Agreement also provides that our long-term business plans and annual budgets and for our subsidiaries, as well as any significant modifications thereto, shall be approved in advance by the Supervisory Board of each of ST Holding and us, each one within its respective sphere of competence. In addition, the Supervisory Board of ST Holding shall also decide upon operations of exceptional importance contained in the annual budget even after financing thereof shall have been approved.

Pursuant to the terms of the Holding Shareholders Agreement, neither we nor ST Holding are permitted, as a matter of principle, to operate outside the field of semiconductor products. The parties to the Holding Shareholders Agreement also undertake to refrain directly or indirectly from competing with us in the area of semiconductor products, subject to certain exceptions, and to offer us opportunities to commercialize or invest in any semiconductor product developments by them. Any financing or capital provided by the parties to ST Holding

---

## **Table of Contents**

or us is intended to be provided *pro rata* based on the parties' respective shareholdings in ST Holding. See further details below.

The admission of a third party to the share capital of ST Holding, whether through the sale of ST Holding's outstanding shares or through the issue by ST Holding of new shares, or by any other means, must be unanimously agreed upon. In the event of a disagreement that cannot be resolved between the parties as to the conduct of the business and actions contemplated by the Holding Shareholders Agreement, each party has the right to offer its interest in ST Holding to the other, which then has the right to acquire, or to have a third party acquire, such interest. If neither party agrees to acquire or have acquired the other party's interest, then together the parties are obligated to try to find a third party to acquire their collective interests, or such part thereof as is suitable to change the decision to terminate the agreement. The Holding Shareholders Agreement otherwise terminates in the event that one of the parties thereto ceases to hold shares in ST Holding.

Pursuant to the terms of the Holding Shareholders Agreement and for the duration of such agreement, FT1CI, on the one hand, and Finmeccanica, on the other hand, have agreed to maintain equal interests in our share capital. See further details below.

### ***New Shareholders Agreement***

On December 10, 2001, FT1CI, Finmeccanica, France Telecom and Areva signed a new shareholders agreement to restructure their holdings in ST Holding. The agreement permits the shareholders to (i) restructure the holding companies as desirable, (ii) provide for new corporate governance principles, (iii) provide for the terms and conditions of disposals of our common shares and (iv) ensure stability in the shareholding structure and future flexibility. To the extent the new shareholders agreement conflicts with existing agreements among the shareholders, the provisions of the new shareholders agreement shall prevail.

#### ***Restructuring of the Holding Companies***

If necessary, the parties have agreed to restructure the two holding companies (ST Holding and ST Holding II) to simplify the structure to the extent possible or desirable for tax efficiency. In any case, at least one holding company will continue to exist to hold our common shares. The company that now holds or may hold our shares in the future for indirect shareholders is referred to below as the holding company. The new shareholders agreement provides that FT1CI may be replaced as a shareholder in the holding company by France Telecom and/or Areva, at their request.

The new shareholders agreement contains a standstill provision that precludes any of the parties and the parties' affiliates from acquiring, directly or indirectly, any of our common shares or any instrument providing for the right to acquire any of our common shares other than through the holding company until 24 months after such party ceases to be an indirect shareholder of us.

#### ***Corporate Governance***

Under the new shareholders agreement, the parties have agreed to modify the corporate governance rights within the holding company so that they will be shared equally by FT1CI and Finmeccanica, referred to below as the shareholders, despite the difference in indirect economic interest in us, for 24 months after the date of the new shareholders agreement plus the three-month period thereafter, referred to as the Balance Period, during which each of FT1CI and Finmeccanica will have an option to rebalance their shareholdings, referred to as the Rebalancing Option. The Balance Period is stated to continue as long as each shareholder in the holding company owns at least 47.5% of its shares subject to the exercise of the Rebalancing Option. In the case where one shareholder's stake exceeds 52.5% after the Balance Period, control of ST Holding will automatically be granted to it, while certain rights will be preserved for the minority shareholder.

During the Balance Period, the shareholders agree that the holding company will have a managing board comprised of two members (one designated by each shareholder) and a supervisory board comprised of eight members (four designated by each shareholder). The chairman of the supervisory board of the holding company shall be designated for a three-year term by one shareholder (with the other shareholder entitled to designate the Vice-Chairman), such designation to alternate between Finmeccanica and FT1CI. The current chairman of the supervisory board is Mr. Steve and the current Vice-Chairman is Mr. Noblanc.



---

**Table of Contents**

During the Balance Period, any other decision, to the extent that a resolution of the holding company is required, must be pursuant to the unanimous approval of the shareholders, including but not limited to the following: (i) the definition of the role and structure of our managing board and supervisory board, and those of the holding company; (ii) the powers of the chairman and the Vice-Chairman of our Supervisory Board, and that of the holding company; (iii) information by our managing board and by our supervisory board, and those of the holding company; (iv) treatment of confidential information; (v) appointment of any additional members of our managing board and that of the holding company; (vi) remuneration of the members of our managing board and those of the holding company; (vii) internal audit of us and of the holding company; (viii) industrial and commercial relationships between us and Finmeccanica or us and either or both FT1CI shareholders, or any of their affiliates; and (ix) any of the decisions listed in article 16.1 of our Articles of Association including our budget and pluri-annual plans.

However, in the case of a hostile take-over bid for us, any shareholder may, upon its sole request, obtain the activation by the holding company of the option agreement relating to the preference shares described below (provided that such activation is triggered by the Supervisory Board), in which case both shareholders shall be required to finance the subscription by the holding company of the preference shares, and such subscription and payment shall be completed only to the extent required to implement the option agreement so as to consolidate a majority of our voting rights (and to the exclusion of any further acquisitions of our common shares, which require the unanimous approval of our shareholders).

As regards us during the Balance Period: (i) each shareholder shall have the right to insert on a list prepared for proposal by the holding company to our general meeting of shareholders the same number of members for election to the Supervisory Board, and the holding company shall vote in favor of such members; (ii) the shareholders will cause the holding company to submit to our general meeting of shareholders and to vote in favor of a common proposal for the appointment of the Managing Board; and (iii) any decision relating to the voting rights of the holding company in us shall require the unanimous approval of the holding company shareholders and shall be submitted by the holding company to our general meeting of shareholders.

In addition, the following resolutions, to the extent that a resolution of the holding company is required, must be resolved upon by a shareholders resolution of the holding company, which shall require the unanimous approval of the shareholders: (i) any alteration in the holding company's articles of association; (ii) any issue, acquisition or disposal by the holding company of its shares or change in share rights; (iii) any alteration in our authorized share capital or issue by us of new shares and/or of any financial instrument giving rights to subscribe for our common shares; any acquisition or disposal by the holding company of our shares and/or any right to subscribe for our common shares; any modification to the rights attached to our common shares; any merger, acquisition or joint venture agreement to which we are or are proposed to be a party; and any other items on the agenda of our general shareholders meeting; (iv) the liquidation or dissolution of the holding company; (v) any legal merger, legal de-merger, acquisition or joint-venture agreement to which the holding company is proposed to be a party; and (vi) the adoption or approval of our annual accounts or those of the holding company or a resolution concerning a dividend distribution by us, it being understood that a dividend distribution by us and the holding company will be regulated by tracking stocks issued by the holding company to the shareholders.

After the end of the Balance Period, unanimous approval by the shareholders of the holding company remains required to approve:

(i) As long as any of the shareholders indirectly owns at least 3% of our issued and outstanding share capital, with respect to the holding company, any changes to the articles of association, any issue, acquisition or disposal of shares in the holding company or change in the rights of its shares, its liquidation or dissolution and any legal merger, de-merger, acquisition or joint venture agreement to which the holding company is proposed to be a party. However the minority shareholder may not prevent the other shareholder from increasing the capital of the holding company in order to finance the acquisition of additional shares of us as a defense against a hostile takeover bid for us.

(ii) As long as any of the shareholders indirectly owns at least 33% of the holding company, certain changes to our articles of association (including any alteration in our authorized share capital, or any issue of share capital and/or financial instrument giving the right to subscribe for our common shares, changes to the rights attached to our shares, changes to the preemptive rights, issues relating to the form, rights and transfer mechanics of the shares, the composition and operation of the Managing and Supervisory Boards, matters subject to the Supervisory Board's approval, the

## **Table of Contents**

Supervisory Board's voting procedures, extraordinary meetings of shareholders and quorums for voting at shareholders meetings).

(iii) Any decision to vote our shares held by the holding company at any general meeting of our shareholders with respect to any substantial and material merger decision. In the event of a failure by the shareholders to reach a common decision on the relevant merger proposal, our shares attributable to the minority shareholder and held by the holding company will be counted as present for purposes of a quorum of shareholders at one of our shareholders' meetings, but will not be voted (i.e., will be abstained from the vote in a way that they will not be counted as a negative vote or as a positive vote).

(iv) In addition, the minority shareholder will have the right to designate at least one member of the list of candidates for the Supervisory Board to be proposed by the holding company if that shareholder indirectly owns at least 3% of our total issued and outstanding share capital.

At the end of the Balance Period, the members of our supervisory board and managing board and those of the holding company nominated by the minority shareholder will immediately resign upon request of the other shareholders, subject to the rights described in the previous paragraph.

### *Disposals of Our Common Shares*

The new shareholders agreement states that France Telecom intends to dispose as soon as possible, subject to the terms of its lock-up agreement, of its entire indirect interest in our common shares. Areva has obtained its freedom to dispose of its stake after a 24-month period from the date of such agreement, with the possibility of rebalancing its stake to equal Finmeccanica's stake. Finmeccanica sold certain amounts of common shares held, initially at the same time as France Telecom, and has the right to have additional common shares sold during such 24-month period so that it may sell a total number of common shares equal to the amount sold during such 24-month period by France Telecom.

At any time, whether during or after the 24-month period from the date of the agreement, FT1CI and Finmeccanica may offer to each other for sale and/or transfer any or all of their respective shares in ST Holding. Likewise, France Telecom and Areva may, during the same period, offer to each other for sale and/or transfer any or all of their respective shares in FT1CI.

Under the new shareholders agreement, ST Holding II sold common shares attributable to a portion of the interest owned by France Telecom and Finmeccanica in December 2001. The new shareholders agreement also provided for ST Holding II to enter into an escrow arrangement with France Telecom with respect to our common shares underlying the exchangeable notes also sold in December 2001. The new shareholders agreement states that France Telecom will have a call option over those shares upon exchange of the exchangeable notes for common shares. The voting rights with respect to the shares held in escrow will at all times be exercised by ST Holding II. The agreement further provides that in connection with the December 2001 common share and exchangeable note offerings, each of the shareholders may request ST Holding to enter into hedging agreements.

Under the new shareholders agreement, further disposals by the shareholders after the December 2001 common share and exchangeable note offerings and the lock-up periods which have been granted by the parties and to the underwriters of the offerings and before the end of the 24-month period from the date of such agreement, are subject to the following restrictions:

(i) According to the underwriting agreements for the common share and exchangeable note offerings, the shareholders agreed not to make any disposals for 180 days. In the event that either France Telecom or Finmeccanica requests a waiver of the 180-day lock-up agreement, and the underwriters agree, the other agrees that it will not unreasonably refuse to waive the lock-up agreement in the shareholders agreement.

(ii) At the end of this lock-up period, FT1CI may cause the holding company to dispose of the entire remaining shares in us indirectly owned by France Telecom. In addition, over the same period, Finmeccanica may cause the holding company to dispose of up to 65,454,983 of our common shares.

---

**Table of Contents**

(iii) The shareholders can make further disposals through the issuance of exchangeable debt instruments (although the instruments may not be exchangeable before the end of the 24-month period), equity swaps, subject to certain conditions, and straight sales or other transfers.

(iv) In the case of straight sales, the total percentage of our common shares held by the holding company after the sale may not be less than the relevant threshold percentage related to the preference shares described below, which percentage will be calculated taking into consideration the total number of our common shares outstanding on the date of the sale and the number of shares that may be issued upon the exercise of equity-linked instruments such as convertible bonds or options that can be exercised before the end of the 24-month period. Finmeccanica has the right to cause ST Holding II to sell a number of our shares equal to the difference between our shares actually disposed of by France Telecom in the common share offering and by way of exchange of the exchangeable bonds minus 29,968,421, the number of common shares actually sold by Finmeccanica in December 2001 (the buffer). In addition, France Telecom and Finmeccanica each have the right to cause ST Holding II to sell, for their respective accounts, 50% of the difference, if positive, between the total number of our common shares held by the holding company and the number of shares, calculated on a fully diluted basis, multiplied by the relevant threshold percentage for the preference shares as described below, less the buffer.

(v) The disposal by the holding company of our common shares corresponding to the interest held by any minority shareholder will always be upon the sole decision of the minority shareholder, subject to compliance with the shareholders agreement.

(vi) Any disposal by ST Holding II of our common shares corresponding to the interest of any shareholder is subject to tag-along rights. The disposals must be made either through a public offering or by a private placement to institutional investors with the objective of ensuring adequate distribution of our common shares in the market.

(vii) Further disposals by the shareholders after the end of the 24-month period and any further lock-up periods, if any, are subject to the following agreements: in the event that a shareholder intends to participate in any public offering for all of our common shares or private placements to institutional investors, the shareholder may do so, subject to a right of first refusal granted to the other shareholders. Any right of first refusal does not apply to Finmeccanica's or France Telecom's disposal of its shareholdings as described in clause (ii) above. In the event that a shareholder wishes to dispose of all of its remaining holding in the holding company in a private transaction outside any regulated market, it may do so only through a sale of its shares in the holding company and the new party becomes party to the then relevant shareholders' agreement.

Any transaction in our shares by our principal indirect shareholders (FT1CI or Finmeccanica, or the shareholders of FT1CI, Areva and France Telecom) pursuant to the new shareholders agreement, or any publicity concerning such a potential transaction, could affect the price of our common shares and cause the market price of our shares to drop significantly.

As long as any of the parties to the shareholders agreement has a direct or indirect interest in us, subject to the public offer exception listed in paragraph (vii) above, no sales by a party to the new shareholders agreement may be made of any of our shares or of FT1CI, ST Holding or ST Holding II to any of our top ten competitors, or any company that controls such competitor.

*Change of Control Provision*

The new shareholders agreement provides for tag-along rights, pre-emptive rights, and provisions with respect to a change of control of any of the shareholders or any controlling shareholder of FT1CI, on the one hand, and Finmeccanica, on the other hand. The shareholders may transfer shares of the holding company or FT1CI to any of the shareholder's affiliates, which would include the Italian state or the French state with respect to entities controlled by a state. The shareholders and their ultimate shareholders will be prohibited from launching any take-over process on any of the other shareholders.

**Table of Contents***Preference Shares*

On May 31, 1999, our shareholders at the annual general meeting approved the creation of 180,000,000 preference shares (540,000,000 preference shares, as adjusted for the 3:1 stock split implemented in May 2000). These preference shares entitle a holder to full voting rights at any meeting of shareholders and to a preferential right to dividends. On May 31, 1999, we entered into an option agreement with ST Holding II, which was recently amended, which provides that preference shares shall be issued to ST Holding II upon request, subject to the adoption of a resolution of our Supervisory Board recognizing that a hostile takeover or similar action exists and giving our consent to the exercise of the option and upon payment of at least 25% of the par value of the preference shares to be issued. Following the most recent amendment to the option agreement, the option is contingent upon ST Holding II retaining at least 30% of our issued share capital at the time of exercise of the option.

Under the new shareholders agreement, any shareholder can cause the holding company to exercise the option to acquire the preference shares in the event of a hostile take-over bid for us.

***Other Shareholders Agreements***

The shareholders of FT1CI entered into a separate shareholders agreement in January 1993. On December 28, 2001, France Telecom and Areva modified this agreement in its entirety to reflect the new shareholders agreement between the shareholders of ST Holding. The new FT1CI shareholders agreement provided for the capital reduction of FT1CI to reflect the sale by France Telecom of a portion of its indirect interest in us. At the end of the two-year period described under Disposals of our Common Shares, Areva can either require an additional capital reduction of FT1CI or buy France Telecom's remaining shares in FT1CI. We are not a party to these agreements.

The new FT1CI shareholders agreement provides for new corporate governance arrangements based on France Telecom's level of ownership of us. It provides that FT1CI shall continue to have five directors, three of whom shall be chosen by Areva and two of whom shall be chosen by France Telecom, provided that France Telecom shall only choose one director once its interest in FT1CI falls below 30%. Also, France Telecom will have the right to nominate a number of FT1CI representatives to the supervisory board of ST Holding, ST Holding II and us in proportion to its holdings, with at least one member to the extent that FT1CI has at least two on those supervisory boards as long as France Telecom owns at least 20% of the capital of FT1CI. France Telecom will cause its appointed directors to these entities to resign as necessary if and when its interest in FT1CI is reduced. Except as set forth below, decisions with respect to ST Holding, us and our subsidiaries may be taken by simple majority. Certain actions by FT1CI will continue to require the approval of the France Telecom director or directors. These include (i) all borrowings above EUR 2 million, (ii) certain loans and advances, (iii) issuance of guarantees, (iv) changes to any shareholder agreements entered into by FT1CI, (v) distribution of any dividends and (vi) introduction of any new shareholder.

In case ST Holding II requests the issuance of preference shares pursuant to the option agreement with us, the new FT1CI shareholders agreement provides that the payment by FT1CI for the subscription price will be shared on a *pro rata* basis between Areva and France Telecom according to the number of our common shares attributed to each on the date of exercise. Each has undertaken to pay such subscription amounts according to their respective *pro rata* stakes.

Following the 24-month period from the ST Holding shareholders agreement, should Finmeccanica exercise its right to make a public offering of our common shares, FT1CI's right of first refusal may be exercised by Areva in the first instance, and then by France Telecom. In addition, in case of a Finmeccanica public offering, both Areva and France Telecom may cause FT1CI to exercise its tag-along rights to offer our common shares corresponding to the respective indirect holding. If either party were to exercise its right of first refusal or tag-along rights, Areva and France Telecom undertake to cause FT1CI to undertake all appropriate actions.

Transfers of shares in FT1CI to third parties are subject to a right of preemption, a right of first refusal of the other shareholders, as well as other provisions. In the event Areva proposes to sell its interest in FT1CI, in whole or in part, France Telecom has the right to require the acquirer to purchase its interest as well. The FT1CI shareholders agreement terminates upon the termination of FT1CI or when either party ceases to be a shareholder of FT1CI.

In addition, certain provisions of the new FT1CI shareholders agreement implement the ST Holding shareholders agreement on a *pro rata* basis among France Telecom and Areva.

**Table of Contents**

As is the case with other companies controlled by the French government, the French government has appointed a *Commissaire du Gouvernement* and a *Contrôleur d'Etat* for FT1CI. Pursuant to Decree No. 94-214, dated March 10, 1994, these government representatives have the right (i) to attend any board meeting of FT1CI, and (ii) to veto any board resolution or any decision of the president of FT1CI within 10 days of such board meeting (or, if they have not attended the meeting, within 10 days of the receipt of the board minutes or the notification of such president's decision); such veto lapses if not confirmed within one month by the Ministry of the Economy or the *Secrétariat d'Etat à l'Industrie* (Secretary of Industry). FT1CI is subject to certain points of the *arrêté* of August 9, 1953 pursuant to which the Ministry of the Economy and any other relevant ministries (a) have the authority to approve decisions of FT1CI relating to budgets or forecasts of revenues, operating expenses and capital expenditures, and (b) may set accounting principles and rules of evaluation of fixed assets and amortization.

Pursuant to the principal Italian privatization law, certain special government powers may be introduced into the by-laws of firms considered strategic by the Italian government. In the case of Finmeccanica, these powers were established by decrees adopted by the Minister of the Treasury on November 8, 1999 and Finmeccanica's by-laws were subsequently amended on November 23, 1999. The special powers of the Minister of the Treasury (who will act in agreement with the Minister of Industry) include (i) the approval or disapproval of the acquisition of material interests in Finmeccanica's share capital, (ii) approval of material shareholders agreements relating to Finmeccanica's share capital, (iii) appointment of members of Finmeccanica's board of directors and board of statutory auditors, and (iv) powers to veto resolutions to dissolve Finmeccanica, transfer its business, merge, conduct spin-offs, sell businesses or lines of business, including the transfer of equity participations in subsidiaries or affiliates, transfer its registered office outside of Italy, change Finmeccanica's corporate purposes or amend or modify any of the Minister of the Treasury's special powers.

In connection with the Initial Public Offering, we entered into a registration rights agreement with ST Holding II pursuant to which we agreed that, upon request from ST Holding II, we will file a registration statement under the Securities Act of 1933, as amended, to register common shares held by ST Holding II, subject to a maximum number of five requests in total as well as a maximum of one request in any twelve-month period. Subject to certain conditions, we will grant ST Holding II the right to include our common shares in any registration statements covering offerings of common shares by us. ST Holding II will pay a portion of the costs of any requested or incidental registered offering based upon its proportion of the total number of common shares being registered, except that ST Holding II will pay any underwriting commissions relating to common shares that it sells in such offerings and any fees and expenses of its separate advisors, if any. Such registration rights agreement will terminate upon the earlier of December 15, 2004 and such time as ST Holding II and its affiliates own less than 10% of our outstanding common shares.

**Related Party Transactions**

We have in the normal course of our business taken certain equity positions, in each case less than 20% of the share capital of the companies in question. In this context, we have simultaneously entered into development contracts where certain of these companies provide us services on arm's length terms. These contracts are not material to our business.

We have formed a joint venture research and development center with France Telecom R&D and LETI in the form of a GIE named *Centre Commun de Microélectronique de Crolles*. France Telecom R&D is a research laboratory that is wholly owned by France Telecom, one of our indirect shareholders. The *Laboratoire d'Electronique et de Technologie d'Instrumentation* is a wholly owned research laboratory of Areva, one of our indirect shareholders. See Item 4. Information on the Company Research and Development and Major Shareholders. The research center is housed at our Crolles, France manufacturing facility, and is developing sub-micron process technologies for 300mm wafers. The joint venture with France Telecom R&D was created in 1990 before France Telecom became our indirect shareholder. The activity of the *Centre Commun de Microélectronique de Crolles* is directed towards sub 0.13-micron technologies with a view to preparing the technology to begin production of 300mm wafers and associated wafer-fabrication processes. The tripartite cooperation is intended to last until the end of 2002.

We participate in certain programs sponsored by the French and Italian governments for the funding of research and development and industrialization through direct grants as well as low interest financing. See Item 4. Information on the Company Public Funding. The shareholders of ST Holding, the corporate parent of our

---

## **Table of Contents**

principal shareholder, are controlled, directly or indirectly, by the governments of the Republics of France and Italy. See Major Shareholders .

Sales to our shareholders and our affiliates totaled \$0.8 million in 2001.

### **Item 8. *Financial Information***

#### **Financial Statements**

Please see Item 18. Financial Statements for a list of the financial statements filed with this document.

#### **Legal Proceedings**

As is the case with many companies in the semiconductor industry, we have from time to time received communications alleging possible infringement of certain intellectual property rights of others. In the event that claims are successfully asserted against us, we could suffer a material adverse effect on our results of operations. Furthermore, irrespective of the validity or the successful assertion of such claims, we could incur significant costs with respect to the defense thereof which could have a material adverse effect on our results of operations or financial condition.

We are currently involved in certain legal proceedings, including an arbitration in Paris which involves a significant claim against us by ESM, which in January 2002 filed for bankruptcy, for alleged breach of the terms of an agreement relating to the license of our HCMOS 5 and HCMOS 6 technologies. We believe that the ESM claim is without foundation and we intend to vigorously defend ourselves. We do not believe that the ultimate resolution of this claim or other pending legal proceedings will have a material adverse effect on our financial condition.

#### **Dividend Policy**

On March 27, 2002, our shareholders approved the payment of a cash dividend with respect to the year ended December 31, 2001 of \$0.04 per share payable to Dutch-registry shareholders of record as of April 22, 2002 and New York Registry shareholders as of April 24, 2002. This dividend was approximately 14% of our earnings for 2001. In 2001, we paid a cash dividend with respect to the year ended December 31, 2000 of \$0.04 per share. This dividend was approximately 2.5% of our earnings for 2000. In 2000, we paid a dividend of \$0.03 per share, which represented 4.9% of our earnings for 1999. In 1999, we paid a dividend of \$0.027 per share, which represented approximately 5.5% of our earnings for 1998. In the future, we may consider proposing dividends representing a similar proportion of our earnings for a particular year.

### **Item 9. *Listing***

#### **Trading History of the Company's Shares**

Since 1994, our common shares have been traded on the New York Stock Exchange under the symbol STM and on Euronext Paris (formerly known as ParisBourse) and were quoted on SEAQ International. On June 5, 1998, our common shares were also listed for the first time on the Italian Stock Exchange, where they have been traded since that date.

Our common shares have been included in the CAC 40, the principal index published by Euronext Paris, since November 12, 1997. The CAC 40 is derived daily by comparing the total market capitalization of 40 stocks included in the monthly settlement market of Euronext Paris to a baseline established on December 31, 1987. Adjustments are made to allow for expansion of the sample due to new issues. The CAC 40 indicates the trends in the French stock market as a whole and is one of the most widely followed stock price indices in France.

On March 18, 2002, we were admitted into the MIB 30 Index, which is comprised of the 30 leading stocks, based upon market capitalization and liquidity, listed on the Milan Stock Exchange. The MIB 30 Index is sponsored by the Italian Stock Exchange Council, is calculated every minute, and accounts for over 70% of the total market capitalization and about 75% of the total trading volume.

The table below indicates the range of the high and low prices in U.S. dollars for the ADSs on the New York Stock Exchange and the high and low prices in euro for the common shares on Euronext Paris and the Italian Stock Exchange during each quarter in 2000, 2001 and to date in 2002. In December 1994, we completed the Initial

**Table of Contents**

Public Offering of 21,000,000 common shares at an initial price to the public of \$22.25 per share. On June 16, 1999, we effected a 2:1 stock split and on May 5, 2000, we effected a 3:1 stock split. The table below has been adjusted to reflect the split. Each range is based on the highest or lowest rate within each day for common share price ranges for the relevant exchange.

Calendar Period	New York Stock Exchange Price per common share		Euronext Paris Price per common share(1)		Italian Stock Exchange Price per common share(2)	
	High	Low	High	Low	High	Low
<b>Annual information for the past five years</b>						
1997	\$ 16.51	\$ 8.58	15.93	7.96		
1998	\$ 15.29	\$ 5.98	14.15	5.01	11.96	5.08
1999	\$ 51.33	\$ 13.42	51.67	11.47	51.67	10.68
2000	\$ 73.88	\$ 39.06	76.93	39.53	76.67	40.35
2001	\$ 48.70	\$ 17.88	52.45	18.88	52.35	18.89
<b>Quarterly information for the past two years</b>						
<b>2000</b>						
First quarter	\$ 73.88	\$ 40.67	76.93	39.53	76.67	40.35
Second quarter	\$ 69.94	\$ 46.88	75.90	50.50	74.33	51.30
Third quarter	\$ 68.13	\$ 46.94	74.50	53.50	72.90	56.05
Fourth quarter	\$ 52.38	\$ 39.06	60.90	44.20	60.80	44.45
<b>2001</b>						
First quarter	\$ 48.70	\$ 29.35	52.45	31.55	52.35	31.60
Second quarter	\$ 42.29	\$ 30.51	48.84	35.00	48.80	35.20
Third quarter	\$ 35.45	\$ 17.89	40.70	18.88	40.60	18.89
Fourth quarter	\$ 38.37	\$ 21.31	42.80	22.75	42.75	22.71
<b>2002</b>						
First quarter	\$ 35.81	\$ 27.62	39.70	31.50	39.65	31.50
Second quarter (as of the close on May 15, 2002)	\$ 34.44	\$ 28.13	38.72	30.13	38.70	30.10
<b>Monthly information for most recent six months</b>						
November 2001	\$ 35.90	\$ 28.09	40.98	30.54	41.00	30.55
December 2001	\$ 38.37	\$ 30.00	42.80	33.40	42.75	33.75
January 2002	\$ 35.81	\$ 29.40	39.70	32.72	39.65	32.90
February 2002	\$ 31.31	\$ 27.62	36.70	31.50	36.40	31.50
March 2002	\$ 34.94	\$ 27.79	39.45	33.83	39.45	33.95
April 2002	\$ 34.44	\$ 30.25	38.72	33.63	38.70	33.60
May 2002 (as of the close on May 15, 2002)	\$ 31.44	\$ 28.13	34.97	30.13	35.00	30.10

Source: Reuters

- (1) For periods prior to January 1, 1999, the share prices on Euronext Paris have been converted into euro at the official exchange rate of 1.00 = FF 6.55957.
- (2) For periods prior to January 1, 1999, the share prices on the Italian Stock Exchange have been converted into euro at the official exchange rate of 1.00 = Lit. 1,936.27. The shares have been listed on the Italian Stock Exchange since June 5, 1998.

At December 31, 2001, there were 889,699,181 common shares issued and outstanding, not including 9.4 million common shares repurchased in 2001 for attribution pursuant to our 2002 employee stock option plan. Of the 889,699,181 common shares issued and outstanding, 70,865,257 or 8.0% were registered in the common share registry maintained on our behalf in New York. In May 2002, we repurchased an additional four million common shares for attribution pursuant to our 2002 employee stock option plan.

**Table of Contents****1999 Liquid Yield Option™ Notes**

Our 1999 Liquid Yield Option™ Notes ( LYONs ) are traded on the New York Stock Exchange and Euronext Paris. The table below indicates the range of the high and low prices on the New York Stock Exchange and the high and low prices for the LYONs on Euronext Paris, in both cases as a percentage of principal amount at maturity, during each quarter in 2000, 2001 and to date in 2002. Each range is based on the highest or lowest rate at the end of each closing day on the relevant exchange.

Calendar Period	New York Stock Exchange Price per LYON		Euronext Paris Price per LYON	
	High	Low	High	Low
<b>Annual information for the past five years</b>				
1999	138.09%	81.56%	140.25%	81.94%
2000	192.10%	118.27%	192.10%	118.44%
2001	132.62%	79.23%	146.50%	88.00%
<b>Quarterly information for the past two years</b>				
<b>2000</b>				
First quarter	192.10%	119.13%	192.10%	118.48%
Second quarter	182.66%	143.30%	183.25%	142.95%
Third quarter	179.23%	135.65%	195.00%	134.75%
Fourth quarter	142.06%	118.27%	201.75%	160.00%
<b>2001</b>				
First quarter	132.62%	94.54%	146.50%	102.50%
Second quarter	119.60%	97.15%	142.13%	113.60%
Third quarter	104.27%	79.23%	113.60%	89.13%
Fourth quarter	110.27%	82.92%	121.13%	88.00%
<b>2002</b>				
First quarter	105.64%	93.70%	105.05%	93.16%
Second quarter (as of the close on May 15, 2002)	101.92%	92.60%	101.10%	92.24%
<b>Monthly information for most recent six months</b>				
October 2001	97.09%	82.92%	105.25%	88.00%
November 2001	106.54%	95.28%	116.50%	101.00%
December 2001	110.27%	98.15%	121.13%	104.88%
January 2002	105.64%	97.42%	113.88%	103.88%
February 2002	99.05%	93.70%	108.25%	100.25%
March 2002	103.77%	97.98%	103.68%	97.84%
April 2002	101.92%	96.08%	101.10%	95.68%
May 2002 (as of the close on May 15, 2002)	96.63%	92.60%	96.46%	92.24%

Source: Bloomberg

**Market Information****Euronext***General*

On September 22, 2000, upon successful completion of an exchange offer, the ParisBourse<sup>SBF</sup> SA, or the SBF, the Amsterdam Stock Exchanges and the Brussels Stock Exchanges merged to create Euronext, the first pan-European stock exchange. Through the exchange offer, all the shareholders of SBF, the Amsterdam Stock Exchanges and the Brussels Stock Exchanges contributed their shares to Euronext N.V. ( Euronext ), a Dutch



**Table of Contents**

holding company. Following the creation of Euronext, the SBF changed its name to Euronext Paris S.A. ( Euronext Paris ). Securities quoted on exchanges participating in Euronext cash markets are traded over a common Euronext platform, but remain listed on their local exchanges. In addition, Euronext anticipates implementation of central clearinghouse, settlement and custody structures over a common system. As part of Euronext, Euronext Paris retains responsibility for the admission of shares to Euronext Paris trading markets as well as the regulation of those markets.

Euronext has been listed on the *Premier Marché* of Euronext Paris since July 2001. In January 2002, Euronext acquired the London International Financial Futures and Options Exchange (LIFFE), London's derivatives market. The combination of LIFFE and Euronext N.V. will triple the volume of derivatives business conducted through LIFFE CONNECT trading platform.

Since February 6, 2002, Bolsa de Valores de Lisboa e Porto (BVLP) has become a wholly owned subsidiary of Euronext and has been renamed Euronext Lisbon.

***Euronext Paris***

Securities approved for listing by Euronext Paris are traded in one of three regulated markets: the *Premier Marché*, *Second Marché* and *Nouveau Marché*. The securities of most large public companies are listed on the *Premier Marché* with the *Second Marché* available for small and medium-sized companies. Trading on the *Nouveau Marché* was introduced in March 1996 to allow companies seeking development capital to access the stock market. In addition, securities of certain other companies are traded on a non-regulated over-the-counter market, the *Marché Libre-OTC*, which is also operated by Euronext Paris.

The common shares are listed on the *Premier Marché*. Shares listed on Euronext Paris are placed in one of two categories depending on the volume of transactions. The common shares are listed in the category known as *Continu*, which includes the most actively traded shares. The minimum yearly trading volume required for a security of a listed company on a regulated market of Euronext Paris in the *Continu* category is 2,500 trades. Securities listed on Euronext Paris are traded through providers of investment services (investment companies and other financial institutions). Trades take place continuously on each business day from 9:00 a.m. to 5:25 p.m. (Paris time), with a pre-opening session from 7:15 a.m. to 9:00 a.m. (Paris time) and a pre-closing session from 5:25 p.m. to 5:30 p.m. (Paris time) during which transactions are recorded but not executed and a closing auction at 5:30 p.m. (Paris time). Any trade effected after the close of a stock exchange session will be recorded, on the next Euronext Paris trading day, at the closing price for the relevant security at the end of the previous day's session. Euronext Paris publishes a daily Official Price List that includes price information on each listed security. Euronext Paris has introduced continuous trading by computer for most listed securities.

Trading in the listed securities of an issuer may be suspended by Euronext Paris if quoted prices exceed certain price limits defined by the relevant regulations. In particular, if the quoted price of a *Continu* security varies by more than ten percent from the previous day's closing price (reference price), trading may be suspended for up to 4 minutes. Further suspensions for up to 4 minutes are also possible if the price again varies by more than ten percent from a new reference price equal to the price which caused the first trading suspension. If the quoted price of a *Continu* security varies by more than two percent from the last quoted price, trading may be suspended for up to 4 minutes. Euronext Paris may also suspend trading of a listed security in certain other limited circumstances, including, for example, the occurrence of unusual trading activity in such security.

Trades of securities listed on the *Premier Marché* are settled on a cash basis on the third trading day following the trade. Market intermediaries are also permitted to offer investors a deferred settlement service (which we refer to as *ordre stipulé à règlement différé* or OSRD ) for a fee. The OSRD is only available for trades in securities which either (i) are a component of the SBF 120 Index or (ii) have both a total market capitalization of at least 1 billion and a daily average volume of trades of at least 1 million and which are cited on a list published by Euronext Paris. The OSRD allows shareholders to benefit from certain leverages and other special features of the previous monthly settlement market (formerly *Marché à Règlement Mensuel*). Investors in securities eligible for the OSRD can elect on the determination date (*date de liquidation*), which is the fifth trading day before the end of the month, either to settle the trade by the last trading day of the month or to pay an additional fee and postpone the settlement decision to the determination date of the following month. Our common shares are eligible for the OSRD.

## **Table of Contents**

Ownership of equity securities traded on a deferred settlement basis passes at the time of registration of the securities in the shareholders' account. In accordance with French securities regulations, any sale of securities traded on a deferred settlement basis during the month of a dividend payment date is deemed to occur after the payment of the dividend. In such cases, the purchaser's account is credited with an amount equal to the dividend paid and the seller's account is debited by the same amount.

Prior to any transfer of securities held in registered form on the *Premier Marché*, the securities must be converted into bearer form and accordingly inscribed in an account maintained by an accredited intermediary with Euroclear France S.A., a registered clearing agency. Transactions in securities are initiated by the owner giving instructions (through an agent, if appropriate) to the relevant accredited intermediary. Trades of securities listed on the *Premier Marché* are cleared and settled through Euroclear France S.A. using a continuous net settlement system. A fee or a commission is payable to the broker-dealer or other agent involved in the transaction.

Our common shares have been included in the CAC 40, the principal index published by Euronext Paris, since November 12, 1997. The CAC 40 is derived daily by comparing the total market capitalization of 40 stocks included in the monthly settlement market of Euronext Paris to a baseline established on December 31, 1987. Adjustments are made to allow for expansion of the sample due to new issues. The CAC 40 indicates the trends in the French stock market as a whole and is one of the most widely followed stock price indices in France. Our common shares could be removed from the CAC 40 at any time, and the exclusion or the announcement thereof could cause the market price of our common shares to drop significantly.

### ***Securities Trading in Italy***

The Mercato Telematico Azionario (the MTA), the Italian automated screen-based quotation system on which our common shares are listed, is organized and administered by Borsa Italiana S.p.A. (Borsa Italiana) subject to the supervision of the CONSOB, the public authority charged, *inter alia*, with regulating investment companies, securities markets and public offerings of securities in Italy to ensure the transparency and regularity of dealings and protect investors. Borsa Italiana was established to manage the Italian regulated financial markets (including the MTA) as part of the implementation in Italy of the EU Investment Services Directive pursuant to Legislative Decree No. 415 of July 23, 1996 (the Eurosim Decree) and as modified by Legislative Decree 58 of February 24, 1998 (the Financial Act). Borsa Italiana became operative in January 1998, replacing the administrative body Consiglio di Borsa, and has issued rules governing the organization and the administration of the Italian stock exchange, futures and options markets as well as the admission to listing on and trading in these markets. The shareholders of Borsa Italiana are primarily financial intermediaries.

A three-day rolling cash settlement period applies to all trades of equity securities in Italy effected on a regulated market. Any person, through an authorized intermediary, may purchase or sell listed securities following (i) in the case of sales, deposit of the securities; and (ii) in the case of purchases, deposit of 100% of such securities' value in cash, or deposit of listed securities or government bonds of an equivalent amount. No closing price is reported for the electronic trading system, but an official price, calculated for each security as a weighted average of all trades effected during the trading day net of trades executed on a cross-order basis, and a reference price, calculated for each security as a weighted average of the last 10% of the trades effected during such day, are reported daily.

If the opening price of a security (established each trading day prior to the commencement of trading based on bids received) differs by more than 10% (or such other amount established by Borsa Italiana) from the previous day's reference price, trading in that security will not be permitted until Borsa Italiana authorizes it. If in the course of a trading day the price of a security fluctuates by more than 5% from the last reported sale price (or 10% from the previous day's reference price), an automatic five minute suspension in the trading of that security will be declared by the Borsa Italiana. In the event of such a suspension, orders already placed may not be modified or cancelled and new orders may not be processed. Borsa Italiana has the authority to suspend trading in any security, among other things, in response to extreme price fluctuations. In urgent circumstances, CONSOB may, where necessary, adopt measures required to ensure the transparency of the market, orderly trading and protection of investors.

Italian law requires that trading of equity securities, as well as any other investment services, may be carried out on behalf of the public only by registered securities dealing firms and banks (with minor exceptions). Banks and investment services firms organized in a member nation of the EU are permitted to operate in Italy provided that the intent of the bank or investment services firm to operate in Italy is communicated to (i) the Bank of

## **Table of Contents**

Italy and to (ii) the Bank of Italy and CONSOB, respectively, by the competent authority of the member state. Non-EU banks and non-EU investment services firms may operate in Italy subject to a specific authorization granted by the Bank of Italy and CONSOB upon consultation with the Bank of Italy, respectively.

The Borsa Italiana, with the approval of CONSOB, has laid out new obligations on information deriving from the modifications brought to the Instructions pertaining to Market Regulations. Such modifications are aimed at allowing companies incorporated outside Italy and meeting the necessary capitalization requirements to be eligible for admission into the MIB 30 Index. The Index is comprised of the 30 leading stocks, based upon market capitalization and liquidity, listed on the Milan Stock Exchange. In November 2001, we confirmed our compliance with these new obligations and are now admitted into the Italian MIB 30 Index.

The settlement of stock exchange transactions is facilitated by Monte Titoli, a centralized securities clearing system owned by the Banca d'Italia and certain major Italian banks and financial institutions. Almost all Italian banks and some registered securities dealing firms have securities accounts with Monte Titoli. Beneficial owners of shares may hold their interests through specific deposit accounts with any depositary having an account with Monte Titoli. Beneficial owners of shares held with Monte Titoli may transfer their shares, collect dividends, create liens and exercise other rights with respect to those shares through such accounts.

Participants in Euroclear and Cedelbank may hold their interests in shares and transfer the shares, collect dividends and exercise their shareholders' rights through Euroclear and Cedelbank. A holder may require Euroclear and Cedelbank to transfer its shares to an account of such holder with an Italian bank or any authorized broker.

On March 18, 2002, we were admitted into the MIB 30 Index, which is comprised of the 30 leading stocks, based upon market capitalization and liquidity, listed on the Milan Stock Exchange. The MIB 30 Index is sponsored by the Italian Stock Exchange Council, is calculated every minute, and accounts for over 70% of the total market capitalization and about 75% of the total trading volume. Our common shares could be removed from the MIB 30 at any time, and the exclusion or announcement thereof could cause the market price of our common shares to drop significantly.

## **Item 10. Additional Information**

### **Memorandum and Articles of Association**

We were incorporated under the law of The Netherlands by deed of May 21, 1987. Set forth below is a summary of certain provisions of our Articles of Association and relevant Dutch corporate law. The summary below does not purport to be complete and is qualified in its entirety by reference to the articles of association and relevant Dutch corporate law. References herein to shares include common and preference shares and references herein to shareholders include common and preference shareholders, unless otherwise provided.

### **Share Capital**

Our authorized share capital amounts to 1,809,600,000, consisting of 1,200,000,000 common shares and 540,000,000 preference shares, with a nominal value of 1.04 per share. As of December 31, 2001, 889,699,181 common shares were outstanding, as well as options to acquire 35,424,516 common shares. No preference shares are currently outstanding. Shares can be issued in registered form only. Pursuant to a shareholders' resolution adopted at the annual general meeting of shareholders on April 25, 2001, our Supervisory Board has been authorized for a period of five years to resolve upon (i) the issuance of any number of new ordinary or preference shares, (ii) the terms and conditions of an issuance of shares; (iii) waiver of existing shareholders' *pro rata* preemptive rights; and (iv) granting of rights to subscribe for ordinary shares and/or preference shares. If the Supervisory Board so decides, share certificates may be issued for common shares.

Share registers are maintained in New York by The Bank of New York, the New York Transfer Agent and Registrar (the New York Registry), and in Amsterdam, The Netherlands, by Netherlands Management Company B.V., the Dutch Transfer Agent and Registrar (the Dutch Registry). Shares of New York Registry held through The Depository Trust Company (DTC) are registered in the name of Cede & Co., the nominee of DTC, and shares of Dutch Registry held through the French clearance and settlement system, Euroclear France, are registered in the name of Euroclear France or its nominee.

**Table of Contents**

The preference shares are intended to protect us from a hostile take-over or similar action. The preference shares entitle a holder to full voting rights at any meeting of shareholders. On May 31, 1999, we entered into an option agreement with ST Holding II in order to protect ourselves from a hostile take-over or other similar action. The option agreement provides that (giving effect to the 3-for-1 stock split of May 2000) up to 540,000,000 preference shares shall be issued to ST Holding II (i) upon its request and subject to the adoption of a resolution of the Supervisory Board giving its consent to the exercise of the option and (ii) upon payment of at least 25% of the par value of the preference shares to be issued. The option is contingent upon ST Holding II retaining at least 33% of our issued share capital. The preference shares, if issued, would have priority over the common shares with respect to dividends and distributions upon liquidation. In the context of the new shareholders agreement described in Item 7. Major Shareholders and Related Party Transactions Major Shareholders Shareholders Agreements New Shareholders Agreement , the parties to that agreement have agreed to perform any action within their power to modify the terms of the option agreement. We and ST Holding II intend to modify the option agreement in such a way that the option shall be contingent upon ST Holding II retaining at least 30% instead of 33% of our issued share capital.

***Dividends***

Subject to certain exceptions, dividends may only be paid out of the profits as shown in the adopted annual accounts. The profits must first be used to set up and maintain reserves required by Dutch law and our articles of association. The Supervisory Board may, upon proposal of the Managing Board, also establish reserves out of our annual profits. The portion of our annual profits that remains after the establishment or maintaining of reserves is at the disposal of the general meeting of shareholders. If the general meeting of shareholders resolves to distribute profits, preference shareholders shall first be paid a dividend if such preference shares are outstanding, which will be a percentage of the paid up part of the nominal value of their preference shares. The profits remaining after payment has been made to preference shareholders may be distributed to the common shareholders.

Our general meeting of shareholders may, upon the proposal of the Supervisory Board, declare distributions out of our share premium reserve and other reserves available for shareholder distributions under Dutch law. Pursuant to a resolution of our Supervisory Board, distributions approved by the general meeting of shareholders may be fully or partially made in the form of our new shares to be issued. We may not pay dividends if the payment would reduce shareholders' equity below the paid-up and called portion of the share capital, plus the reserves which are required by statute. Our Supervisory Board may, subject to certain statutory provisions, distribute one or more interim dividends in respect of any year before the accounts for such year have been approved and adopted at a general meeting of shareholders. Rights to cash dividends and distributions that have not been collected within five years after the date on which they became due and payable shall revert to us.

At December 31, 2001, the amount of retained earnings available to pay dividends under Dutch law was approximately \$5,251 million. Retained earnings for purposes of this calculation are based on our unconsolidated accounts using generally accepted accounting principles in The Netherlands ( Dutch GAAP ). The only material difference between our Dutch GAAP and U.S. GAAP accounts resulted because we canceled our accumulated deficit through a share capital reduction in 1993. Under U.S. GAAP, as this operation was not a quasi-reorganization, the net effect of the par value reduction was applied against capital surplus. At December 31, 2001, under U.S. GAAP, we had accumulated earnings of approximately \$4,199 million.

As approved by the annual general meeting of shareholders on May 31, 1999, we paid a cash dividend in respect of the year ended December 31, 1998 of \$0.027 per common share on June 15, 1999 to shareholders of record as of June 1, 1999. As approved by the annual general meeting on April 26, 2000, we paid on May 4, 2000 a cash dividend in respect of the year ended December 31, 1999 of \$0.03 of shareholders per share issued and outstanding as of April 28, 2000. As approved by the annual general meeting of shareholders on April 25, 2001, we paid on May 11, 2001 a cash dividend in respect of the year ended December 31, 2000 of \$0.04 per share issued and outstanding at April 27, 2001. In the event that dividends are declared in the future, we expect that we would pay such dividends in U.S. dollars, although dividends may be declared in other currencies. Cash dividends to holders of shares of Dutch Registry will be paid to the Dutch Transfer Agent and Registrar who will, if necessary, convert such dividends into euro at the rate of exchange on the date such dividends are paid, for disbursement to such holders. Cash dividends to holders of shares of New York Registry will be paid to the New York Transfer Agent and Registrar, who will, if necessary, convert such dividends into U.S. dollars at the rate of exchange on the date such dividends are paid, for disbursement to such holders.

---

## **Table of Contents**

### ***Shareholder Meetings and Voting Rights***

Each registered shareholder has the right to attend general meetings of shareholders, either in person or represented by a person holding a written proxy, to address shareholder meetings and to exercise voting rights, subject to the provisions of the articles of association. Our ordinary general meetings of shareholders are held at least annually, within six months after the close of each financial year, in Amsterdam, Haarlemmermeer (Schiphol Airport), Rotterdam or The Hague, The Netherlands. Extraordinary general meetings of shareholders may be held as often as our Supervisory Board deems necessary, and must be held upon the written request of registered holders of at least 10% of the total outstanding share capital to our Managing Board or our Supervisory Board specifying in detail the business to be dealt with.

We will give notice by mail to registered holders of shares of each shareholders' meeting, and will publish notice thereof in a national daily newspaper distributed throughout The Netherlands and in at least one daily newspaper in each country other than the United States in which the shares are admitted for official quotation. Such notice shall be given no later than the twenty-first day prior to the day of the meeting and shall either state the business to be considered or state that the agenda is open to inspection by the shareholders at our offices. We are exempt from the proxy rules under the United States Securities Exchange Act of 1934. Euroclear France will provide notice of general meetings of shareholders to, and compile voting instructions from, holders of shares held directly or indirectly through Euroclear France. DTC will provide notice of general meetings of shareholders to holders of shares held directly or indirectly through DTC and the New York Transfer Agent and Registrar will compile voting instructions. In order for holders of shares held directly or indirectly through Euroclear France to attend general meetings of shareholders in person, such holders must withdraw their shares from Euroclear France and have such shares registered directly in their name or in the name of their nominee. In order for holders of shares held directly or indirectly through DTC to attend general meetings of shareholders in person, such holders need not withdraw such shares from DTC but must follow rules and procedures established by the New York Transfer Agent and Registrar.

Each share is entitled to one vote. Unless otherwise required by the articles of association or Dutch law, resolutions of general meetings of shareholders require the approval of a majority of the votes cast at a meeting at which at least one-third of the outstanding share capital is present or represented.

The articles of association allow for separate meetings for holders of common shares and for holders of preference shares. At a meeting of holders of preference shares at which the entire issued capital of shares of such class is represented, valid resolutions may be adopted even if the requirements in respect of the place of the meeting and the giving of notice have not been observed, *provided* that such resolutions are adopted by unanimous vote. Also, valid resolutions of preference shareholder meetings may be adopted outside a meeting if all holders of preference shares and holders of a right of usufruct on preference shares indicate by letter, telegram, telex communication or facsimile that they vote in favor of the proposed resolution, provided that no depositary receipts for preference shares have been issued with our cooperation.

### ***Approval of Annual Accounts and Discharge of Management Liability***

Each year, our Managing Board must prepare annual accounts and submit them to the general meeting of shareholders for approval within five months after the end of our financial year, unless the general meeting of shareholders has extended this period by a maximum of six months on account of special circumstances.

Notwithstanding the language in our articles of association, effective the financial year commencing on January 1, 2002, Dutch law no longer allows the automatic discharge of the members of our Supervisory Board and of our Managing Board when our annual accounts are adopted by our shareholders. Therefore, for the financial year commencing January 1, 2002 and for subsequent financial years, in order to obtain such a discharge, the discharge will be introduced as a separate item on the agenda for our annual general meetings of shareholders. Under Dutch law, this discharge does not extend to matters not disclosed to shareholders.

### ***Liquidation Rights***

In the event of our dissolution and liquidation, after payment of all debts and liquidation expenses, the holders of preference shares shall, if possible, receive the paid up portion of the nominal amount of their preference shares. Any assets then remaining shall be distributed among the registered holders of common shares in proportion to the nominal value of their shareholdings.

---

## **Table of Contents**

### ***Issue of Shares; Preemptive Rights***

Unless limited or eliminated by the general meeting of shareholders or our Supervisory Board as described below, registered holders of common shares have a *pro rata* preemptive right to subscribe for any newly issued common shares, except for common shares issued for consideration other than cash and common shares issued to our employees or of one of our group companies. Shareholders do not have a preemptive right to subscribe for any newly issued preference shares. Holders of preference shares have no preemptive rights.

The general meeting of shareholders, upon proposal and on the terms and conditions set by our Supervisory Board, has the power to issue shares. The general meeting of shareholders may also authorize our Supervisory Board, for a period of no more than five years, to issue shares and to determine the terms and conditions of share issuances. At the general meeting of shareholders held on April 25, 2001, the Supervisory Board was delegated this authority for a period of five years.

The general meeting of shareholders, upon proposal by the Supervisory Board, also has the power to limit or exclude preemptive rights in connection with new issuances of shares. Such a resolution of the general meeting of shareholders requires the approval of at least two-thirds of the votes cast if at such general meeting of shareholders less than 50% of the outstanding share capital is present or represented. The general meeting of shareholders may authorize our Supervisory Board, for a period of no more than five years, to limit or exclude preemptive rights. At the general meeting of shareholders held on April 25, 2001, our Supervisory Board was delegated this authority for a period of five years.

### ***Acquisition of Shares in Our Own Share Capital***

We may acquire our own shares, subject to certain provisions of Dutch law and of our Articles of Association, if and to the extent that (i) the shareholders' equity less the payment required to make the acquisition does not fall below the sum of the paid-up and called-up portion of the share capital and any reserves required by Dutch law and (ii) the aggregate nominal value of shares that we or our subsidiaries acquire, hold or hold in pledge would not exceed one-tenth of our issued share capital. Share acquisitions may be effected by our Managing Board, subject to the approval of our Supervisory Board, only if the general meeting of shareholders has authorized the Managing Board to effect such repurchases, which authorization may apply for a maximum period of 18 months. We may not vote shares we hold. Our articles of association have been amended effective as of May 5, 2000, implementing a resolution of the general meeting of shareholders held on April 26, 2000, to provide that we shall be able to acquire shares in our own share capital in order to transfer these shares under employee stock option or stock purchase plans, without an authorization of the general meeting of shareholders being required.

In 2001, we acquired 9.4 million of our common shares, and in May 2002, we acquired an additional four million of our common shares, to fund attributions pursuant to our 2002 employee stock option plan.

### ***Capital Reduction***

Upon proposal by our Supervisory Board, the general meeting of shareholders may resolve to reduce our issued share capital by canceling shares held by us or by reducing the nominal value of shares, subject to certain statutory provisions. Upon proposal by our Supervisory Board, the general meeting of shareholders also may cancel all preference shares against payment of the amount paid up on those shares, subject to certain statutory provisions.

### ***Amendment of the Articles of Association***

The articles of association may be amended if amendments are proposed by our Supervisory Board and approved by a simple majority of the votes cast at a general meeting of shareholders at which at least one-third of the outstanding share capital is present or represented. The complete proposal for the amendment must be made available for inspection by the shareholders and the other persons entitled to attend general meetings of shareholders at our offices as from the day of the notice convening such meeting until the end of the meeting. Any amendment of the articles of association that negatively affects the rights of the holders of a certain class of shares requires the prior approval of the meeting of holders of such class of shares.

### ***Managing Board***

Responsibility for our management lies with our Managing Board. Our Managing Board consists of such number of members as resolved by the general meeting of shareholders upon the proposal of the Supervisory Board.

## **Table of Contents**

The members of the Managing Board are appointed for three-year terms by the general meeting of shareholders. Our Supervisory Board appoints one of the members of the Managing Board to be chairman of the Managing Board. The remuneration and other conditions of employment of the members of the Managing Board are determined by the Supervisory Board.

The Managing Board and each member of the Managing Board is authorized to represent us. Resolutions of our Managing Board require the approval of a majority of its members. Under the articles of association, the Managing Board is required to obtain prior approval from the Supervisory Board for:

all proposals to be submitted to a vote at the general meeting of the shareholders;

the formation of all companies, acquisition or sale of any participation and the entering into of any joint venture or participation agreement;

all of our multi-annual plans and the budget for the upcoming year, covering investment policy, policy regarding research and development, as well as commercial policy and objectives, general financial policy and policy regarding personnel; and

all acts, decisions or operations covered by the above list and constituting a significant change with respect to decisions already adopted by the Supervisory Board or not provided for in the above list and as specifically laid down by the Supervisory Board in a resolution adopted by it to that effect. The Supervisory Board has, by resolution, specified additional resolutions of the Managing Board that require its approval.

In addition, under the articles of association, our Managing Board must obtain prior approval from the general meeting of shareholders for decisions relating to:

the sale of all or of an important part of our assets or business enterprise(s), and

the entering into of mergers, acquisitions or joint ventures that the Supervisory Board considers of material significance.

The general meeting of shareholders may by resolution specify additional resolutions that require its approval.

The general meeting of shareholders may suspend or dismiss one or more members of the Managing Board at a meeting at which at least one-half of the outstanding share capital is present or represented. A quorum of one-third is required if a suspension or dismissal is proposed by the Supervisory Board. The Supervisory Board may suspend members of the Managing Board, but a general meeting of shareholders must be convened within three months after such suspension to confirm or reject the suspension.

## ***Supervisory Board***

Our Supervisory Board advises our Managing Board and is responsible for supervising the policies pursued by the Managing Board and the general course of our affairs. In addition, certain resolutions by the Managing Board require the prior approval of the Supervisory Board, and the Supervisory Board may by resolution specify additional resolutions that require such approval. Resolutions of the Supervisory Board require the approval of three-quarters of its members. In fulfilling their duties, members of the Supervisory Board must serve our interests.

The members of the Supervisory Board are appointed by the general meeting of shareholders. The general meeting of shareholders, upon proposal of the Supervisory Board, determines the number of the members of the Supervisory Board, provided that there shall always be at least six supervisory directors. The remuneration of the members of the Supervisory Board is determined by the general meeting of shareholders. The general meeting of shareholders may dismiss or suspend the members of the Supervisory Board with a simple majority vote.

Each member of the Supervisory Board must resign no later than three years after he has been appointed, but may offer himself for re-election following the expiry of his term of office. Each member of the Supervisory Board must retire at the annual general meeting of shareholders held in the financial year in which he reaches the statutory maximum age of members of the Supervisory Board (currently 72 years). As of April 23, 2002, there will no longer be a statutory maximum age. Therefore, this provision will no longer be effective.

## **Table of Contents**

### **Disclosure of Holdings**

Under the Dutch Act on Disclosure of Holdings in listed companies ( *Wet melding zeggenschap in ter beurze genoteerde vennootschappen 1996* ), registered shareholders and beneficial owners must promptly notify us and the Authority of the Financial Markets of The Netherlands established in Amsterdam if their holding in us reaches, exceeds or falls below 5%, 10%, 25%, 50% or 66.66% of the capital interest and/or voting rights, including rights to acquire capital interest and/or voting rights, of us. Failure to comply constitutes a criminal offense and could result in criminal as well as civil sanctions, including suspension of voting rights and the right to acquire the same. We must in turn inform the *Conseil des Marchés Financiers* of all such notifications provided by registered shareholders and beneficial owners to us.

### **Limitations on Right to Hold or Vote Shares**

There are currently no limitations imposed by Dutch law or by the articles of association on the right of non-resident holders to hold or vote the shares.

### **Exchange Controls**

None.

### **Taxation**

#### **Dutch Taxation**

Following is a summary of the principal Dutch tax consequences of the acquisition, ownership and disposition of common shares.

This summary assumes that we are organized in and that our business will be conducted in the manner outlined in this annual report on Form 20-F. Changes in our organizational structure or the manner in which we conduct our business may invalidate the contents of this summary. Furthermore, this summary assumes that each transaction with respect to common shares is at arm's length.

Unless stated otherwise, this summary is based on Dutch tax laws as they are in force and in effect as of the date of this annual report on Form 20-F. These laws are subject to change, which changes may have retroactive effect. A change to such laws may invalidate the contents of this summary. This summary will not be updated to reflect changes in laws.

This summary applies only to a holder of common shares who is neither resident nor deemed to be resident in The Netherlands for Dutch tax purposes and, in the case of an individual, has not elected to be treated as a resident of The Netherlands for Dutch income tax purposes (a Non-Resident Shareholder). This summary does not apply to any Non-Resident Shareholder who is or has been or is deemed to be or has been deemed to be an employee of us or of any entity related to us. Also, this summary does not apply to any Non-Resident Shareholder whose shares form part, or are deemed to form part, of a substantial interest (*aanmerkelijk belang*) in us, unless such interest forms part of the assets of an enterprise.

The holder of common shares has or is deemed to have a substantial interest in us if such holder alone or together with such holder's partner (*partner*) has, directly or indirectly, the ownership of, or certain rights, for instance a right of usufruct, over shares of us representing 5% or more of our total issued and outstanding capital (or the issued and outstanding capital of any class of shares), or rights to acquire, directly or indirectly, shares, whether or not already issued, that represent at any time 5% or more of our total issued and outstanding capital (or the issued and outstanding capital of any class of shares) or the ownership of, or certain rights, for instance a right of usufruct, over profit participating certificates (*winstbewijzen*) that relate to 5% or more of our annual profit or to 5% or more of our liquidation proceeds. If a holder of common shares has a substantial interest pursuant to the previous sentence, such holder's common shares form part of a substantial interest. Furthermore, the holder's common shares form part of a substantial interest in us if such holder's partner or any person directly related to the holder or to the partner by blood or by marriage (including foster-children) holds shares that form part of, or are deemed to form part of, a substantial interest in us. Finally, if a holder's common shares, profit-participating certificates or rights to acquire common shares or profit participating certificates in us do not form part of a substantial interest pursuant to the two previous sentences, they may be deemed to form part of a substantial interest in us if they have been acquired or are deemed to have been acquired by such holder under a non-recognition provision.



---

## **Table of Contents**

For purposes of the above, a person who is only entitled to the benefits from shares or profit-participating certificates, for instance, a holder of a right of usufruct, is deemed to be a holder of shares or profit-participating certificates, as the case may be, and such person's entitlement to benefits is considered a share or a profit participating certificate, as the case may be.

This summary is a general summary that does not discuss every aspect of Dutch taxation that may be relevant to a Non-Resident Shareholder, for instance if such holder is subject to special circumstances or if such holder is subject to special treatment under applicable law.

EACH INVESTOR SHOULD CONSULT A PROFESSIONAL TAX ADVISOR REGARDING THE PARTICULAR TAX CONSEQUENCES OF SUCH INVESTOR'S OWNING AND DISPOSING OF COMMON SHARES.

### ***Dividend withholding tax***

Dividends we distribute to Non-Resident Shareholders are generally subject to a withholding tax imposed by The Netherlands at a rate of 25%. The concept "dividends we distribute", as used in this summary, includes, but is not limited to, the following:

- (i) distributions in cash or in kind, deemed and constructive distributions (including, as a rule, consideration for the repurchase of common shares by us, other than a repurchase as a temporary investment, in excess of the average capital recognized as paid-in for Dutch dividend withholding tax purposes), and repayments of capital not recognized as paid-in for Dutch dividend withholding tax purposes;
- (ii) liquidation proceeds and proceeds of redemption of our common shares in excess of the average capital recognized as paid-in for Dutch dividend withholding tax purposes;
- (iii) the par value of shares issued by us to a holder of common shares or an increase of the par value of common shares, as the case may be, to the extent that it does not appear that a contribution, recognized for Dutch dividend withholding tax purposes, has been made or will be made; and
- (iv) partial repayment of capital, recognized as paid-in for Dutch dividend withholding tax purposes, if and to the extent that there are net profits (*zuivere winst*), unless (a) the general meeting of our shareholders has resolved in advance to make such repayment and (b) the par value of the common shares concerned has been reduced by an equal amount by way of an amendment of our articles of association.

If a Non-Resident Shareholder is resident in a country with which The Netherlands has concluded a double taxation treaty that is in effect, such Non-Resident Shareholder may be eligible for a full or partial relief from the Dutch dividend withholding tax provided that such relief is duly claimed. Legislation is in force, but not effective, pursuant to which a credit for Dutch dividend withholding tax will for Dutch domestic tax purposes only be available to the beneficial owner (*uiteindelijk gerechtigde*) of dividends we distribute. The Dutch tax authorities have taken the position that the beneficial ownership test can also be applied to deny relief from Dutch dividend withholding tax under double taxation treaties and the Tax Arrangement for the Kingdom. A new legislative proposal that deals with the beneficial ownership of dividends has passed the Second Chamber of Parliament on November 15, 2001. The intention is that this new legislation will take effect retroactively to April 27, 2001. The legislation that is in force, but not effective, will then be abrogated.

We are not required to withhold Dutch dividend withholding tax from a dividend we distribute to a Non-Resident Shareholder, who is resident in the Netherlands Antilles or Aruba or in a member state of the European Union or in a country that has concluded a double taxation treaty with The Netherlands, to the extent that the temporary special distribution tax, discussed below in the section "Distribution tax", applies to the distribution.

**Reduction.** If we have received a profit distribution from a foreign entity, or a repatriation of foreign branch profit, that is exempt from Dutch corporate income tax and that has been subject to a foreign withholding tax of at least 5%, we may be entitled to a reduction of the amount of Dutch dividend withholding tax that must be paid over to the Dutch tax authorities in respect of dividends we distribute.

**Table of Contents**

INVESTORS SHOULD CONSULT A PROFESSIONAL TAX ADVISOR REGARDING THE GENERAL CREDIBILITY OR DEDUCTIBILITY OF DUTCH DIVIDEND WITHHOLDING TAX OR THE IMPACT OF OUR POTENTIAL ABILITY TO RECEIVE A REDUCTION AS DISCUSSED IN THE PREVIOUS PARAGRAPH.

***Dutch-U.S. double taxation treaty***

Under the Dutch-United States double taxation treaty of December 18, 1992 (the Dutch-U.S. Treaty ), the Dutch dividend withholding tax rate on dividends we distribute in respect of common shares held by a Non-Resident Shareholder who is resident in the United States who is entitled to the benefits of the Dutch-U.S. Treaty will generally be reduced to 15%.

The Dutch-U.S. Treaty provides for a complete exemption for dividends received by exempt pension trusts and exempt organizations, as defined therein. Except in the case of exempt organizations, the reduced dividend withholding tax rate under the Dutch-U.S. Treaty may be available at source, upon payment of a dividend in respect of such shares, provided that the holder thereof, or, if applicable, the paying agent, has supplied us with the appropriate Dutch tax forms (i.e., a duly signed form IB 92 USA) in accordance with the Dutch implementation regulations under the Dutch-U.S. Treaty. If such forms are not duly and timely supplied, we generally will be required to withhold the dividend withholding tax at the Dutch statutory rate of 25%. Where a person entitled to relief has not been able to claim the relief at source, such person will be entitled to a refund of the excess tax withheld. In that case, such person should as yet file the appropriate form (i.e., IB 92 USA) within the appropriate time limit and state the circumstances that prevented a claim for relief at source.

Dividends paid by us to qualifying U.S. pension funds and qualifying U.S.-exempt organizations may be eligible for full exemption of the Dutch dividend withholding tax.

***Taxes on income and capital gains***

A Non-Resident Shareholder will not be subject to any Dutch taxes on income or capital gains in respect of dividends we distribute (other than the dividend withholding tax described above) or in respect of any gain realized on the disposal of common shares, unless:

- (i) such holder derives profits from an enterprise, whether as an entrepreneur or pursuant to a co-entitlement to the net worth of such enterprise (other than as an entrepreneur or a shareholder), which enterprise is either managed in The Netherlands, or, in whole or in part, carried on through a permanent establishment or a permanent representative in The Netherlands and such holder's common shares are attributable to that enterprise or part of an enterprise, as the case may be; or
- (ii) (in the case of an individual) such holder derives benefits from common shares that are taxable as benefits from miscellaneous activities in The Netherlands (*resultaat uit overige werkzaamheden in Nederland*).

See the caption Dividend withholding tax above for a discussion of the concept dividends we distribute .

A Non-Resident Shareholder may, *inter alia*, derive benefits from common shares that are taxable as benefits from miscellaneous activities in The Netherlands:

- (i) if the investment activities of such individual go beyond the activities of an active portfolio investor, for instance in case of the use of insider knowledge (*voorkennis*) or comparable forms of special knowledge; or
- (ii) if such individual makes common shares available or is deemed to make common shares available, legally or in fact, directly or indirectly, to a related party, as described in articles 3.91 and 3.92 of the Dutch Income Tax Act 2001.

***Distribution tax***

We are subject to a temporary special distribution tax at a rate of 20% to the extent that dividends we distribute during the period from January 1, 2001 up to and including December 31, 2005 are classified as

## **Table of Contents**

excessive . For purposes of this distribution tax, dividends we distribute are considered to be excessive to the extent that during a particular calendar year the total thereof exceeds the highest of the following three amounts:

- (i) 4% of our market capitalization at the beginning of the relevant calendar year;
- (ii) twice the amount of the average annual dividends (exclusive of extraordinary distributions) that we distributed in the three calendar years immediately preceding January 1, 2001; and
- (iii) our consolidated commercial result for the preceding book year, subject to certain adjustments.

See the section Dividend withholding tax for a discussion of the concept dividends we distribute .

The special distribution tax will not be levied if and to the extent the aggregate amount of dividends we distribute during the period from January 1, 2001 up to and including December 31, 2005 exceeds the fair market value of our assets ending on December 31, 2000, net of liabilities and provisions and reduced by our paid-in capital.

The special distribution tax will be reduced in proportion to the percentage of our shares that were held, at the time of the excessive distribution, during an uninterrupted period of three years, by individuals or entities (other than investment institutions (*beleggingsinstellingen*) as defined in the Dutch Corporate Income Tax Act 1969) holding at least 5% of our nominal paid-in capital, provided such shareholders are resident in The Netherlands, the Netherlands Antilles or Aruba, or in a member state of the European Union, or in a country that has concluded a double taxation treaty with The Netherlands. In that connection, shares that have been held since September 14, 1999 are deemed to have been held during an uninterrupted period of three years. The special distribution tax is not a withholding tax; it is imposed directly on us. Therefore, if it is reduced because there are shareholders who own at least 5% of our nominal paid-in capital, we will receive the benefit of the reduction and it will inure indirectly to all of our shareholders, not only to the shareholders whose shareholdings caused the reduction to apply.

### **Capital Tax**

We are subject to Dutch capital tax at a rate of 0.55% on any contribution received in respect of shares.

### **Gift and inheritance taxes**

No gift tax or inheritance taxes will arise in The Netherlands with respect to an acquisition of common shares by way of a gift by, or on the death of, a Non-Resident Shareholder, unless:

- (i) such Non-Resident Shareholder at the time of the gift has or at the time of death had an enterprise or an interest in an enterprise that is or was, in whole or in part, carried on through a permanent establishment or a permanent representative in The Netherlands and to which enterprise or part of an enterprise, as the case may be, the common shares are or were attributable; or
- (ii) in the case of a gift of common shares by an individual who at the time of the gift was a Non-Resident Shareholder, such individual dies within 180 days after the date of the gift, while (at the time of death) being resident or deemed to be resident in The Netherlands.

For purposes of Dutch gift and inheritance tax, an individual who holds Dutch nationality will be deemed to be resident in The Netherlands if he has been resident in The Netherlands at any time during the ten years preceding the date of the gift or death. For purposes of Dutch gift tax, an individual not holding Dutch nationality or an entity will be deemed to be resident in The Netherlands if he has been resident in The Netherlands at any time during the twelve months preceding the date of the gift.

Furthermore, in exceptional circumstances, the donor or the deceased will be deemed to be resident in The Netherlands for purposes of Dutch gift and inheritance taxes if the beneficiary of the gift, or all beneficiaries under the estate jointly, as the case may be, make an election to that effect.

### **Other taxes and duties**

No Dutch registration tax, transfer tax, stamp duty or any other similar documentary tax or duty will be payable in The Netherlands in respect of or in connection with the subscription, issue, placement, allotment or delivery of the common shares.

---

**Table of Contents****United States Taxation**

The following discussion is a summary of certain U.S. federal income tax consequences of the ownership and disposition of common shares by you if you are a U.S. Holder, as defined below. This summary applies to you only if you are a beneficial owner of common shares (a) who owns, directly or indirectly, less than 10% of our voting stock, (b) who is (i) an individual citizen or resident of the United States for U.S. federal income tax purposes, (ii) a U.S. domestic corporation, (iii) an estate whose income is subject to U.S. federal income taxation regardless of its source, or (iv) a trust if a court within the United States is able to exercise primary supervision over its administration and one or more U.S. persons have the authority to control all of the substantial decisions of the trust, (c) who holds the common shares as capital assets, (d) whose functional currency is the U.S. dollar, (e) who is a resident of the United States and not also a resident of The Netherlands for purposes of the Convention, (f) who is entitled under the limitation on benefits provisions contained in the Convention to the benefits of the Convention and (g) who does not have a permanent establishment or fixed base in The Netherlands (a U.S. Holder). Certain holders (including, but not limited to, United States expatriates, tax-exempt organizations, persons subject to the alternative minimum tax, securities broker-dealers and certain other financial institutions, persons holding the common shares in a hedging transaction or as part of a straddle or conversion transaction or holders whose functional currency is not the U.S. dollar) may be subject to special rules not discussed below. Because this is a general summary, investors are advised to consult their own tax advisors with respect to the U.S. federal, state, local and applicable foreign tax consequences of the ownership and disposition of common shares.

This summary is based on the Internal Revenue Code of 1986, as amended, the Convention, judicial decisions, administrative pronouncements and existing and proposed Treasury regulations as of the date hereof, all of which are subject to change, possibly with retroactive effect.

***Dividends***

For U.S. federal income tax purposes, the gross amount of distributions made by us with respect to the common shares (including the amount of any Netherlands taxes withheld therefrom) will generally be includable in your gross income in the year received as foreign source dividend income to the extent that such distributions are paid out of our current or accumulated earnings and profits as determined under U.S. federal income tax principles. To the extent, if any, that the amount of any such distribution exceeds our current or accumulated earnings and profits, it will be treated first as a tax-free return of your tax basis in the common shares (thereby increasing the amount of any gain or decreasing the amount of any loss realized on the subsequent sale or disposition of such common shares) and thereafter as capital gain. No dividends-received deduction will be allowed with respect to dividends paid by us. The amount of any distribution paid in Dutch guilders or euro will be equal to the U.S. dollar value of such Dutch guilders or euro on the date of distribution, regardless of whether the payment is in fact converted into U.S. dollars at that time. Gain or loss, if any, realized on the sale or other disposition of such Dutch guilders or euro will generally be U.S. source ordinary income or loss. The amount of any distribution of property other than cash will be the fair market value of such property on the date of distribution.

Subject to certain limitations, Netherlands taxes withheld from a distribution at the rate provided in the Convention will be eligible for credit against your U.S. federal income tax liability. Under current Dutch law, we, under certain circumstances, may be permitted to deduct and retain from such withholding a portion of the amount that would otherwise be required to be remitted to the taxing authorities in The Netherlands. This amount generally may not exceed 3% of the total dividend distributed by us. To the extent that we have withheld an amount from dividends paid to shareholders which we then are not required to remit to any taxing authority in The Netherlands, such amount in all likelihood would not qualify as a creditable tax for U.S. tax purposes. We will endeavor to provide to you information concerning the extent to which we have applied the reduction described above to dividends paid to you. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. For this purpose, dividends distributed by us with respect to the common shares will generally constitute *passive income* or, in the case of certain U.S. Holders, *financial services income*. The rules relating to the determination of the U.S. foreign tax credit are complex and holders should consult their tax advisors to determine whether and to what extent a credit would be available. If you do not elect to claim a foreign tax credit you may instead claim an itemized deduction for all foreign taxes paid in the taxable year.

---

**Table of Contents**

***Sale or other Disposition of common shares***

Upon a sale or other disposition of common shares, you will recognize capital gain or loss for U.S. federal income tax purposes in an amount equal to the difference between the amount realized and your tax basis in such common shares. Any such gain or loss will generally be U.S. source gain or loss and will be treated as long-term gain or loss if your holding period in the common shares exceeds one year. If you are an individual, any capital gain generally will be subject to U.S. federal income tax at preferential rates if specified minimum holding periods are met. The deductibility of capital losses is subject to significant limitations.

***U.S. Information Reporting and Backup Withholding***

Dividend payments with respect to common shares and proceeds from the sale, exchange or redemption of common shares may be subject to information reporting to the Internal Revenue Service ( IRS ) and possible U.S. backup withholding at rates of up to 30%. Backup withholding will not apply, however, to a holder who furnishes a correct taxpayer identification number or certificate of foreign status and makes any other required certification or who is otherwise exempt from backup withholding. U.S. persons who are required to establish their exempt status generally must provide such certification on IRS Form W-9 ( Request for Taxpayer Identification Number and Certification ). Non-U.S. holders generally are not subject to U.S. information reporting or backup withholding. However, such holders may be required to provide certification of non-U.S. status in connection with payments received in the United States or through U.S.-related financial intermediaries. Holders of common shares should consult their tax advisors regarding the application of the U.S. information reporting and backup withholding rules.

Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a holder's U.S. federal income tax liability, and a holder may obtain a refund of any excess amounts withheld under the backup withholding rules by filing the appropriate claim for refund with the IRS and furnishing any required information.

***Documents On Display***

The documents filed by us with the U.S. Securities and Exchange Commission can be read at its public reference facilities at Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549.

**Item 11. *Quantitative and Qualitative Disclosures About Market Risk***

We are exposed to changes in financial market conditions in the normal course of business due to our operations in different foreign currencies and our ongoing investing and financing activities. Market risk is the uncertainty to which future earnings or asset/liability values are exposed due to operating cash flows denominated in foreign currencies and various financial instruments used in the normal course of operations. We have established policies, procedures and internal processes governing our management of market risks and the use of financial instruments to manage our exposure to such risks.

We are exposed to changes in interest rates primarily as a result of our borrowing activities which include long-term debt used to fund business operations. We borrow in U.S. dollars as well as in other currencies from banks and other sources. We primarily enter into debt obligations to support general corporate and local purposes including capital expenditures and working capital needs. The nature and amount of our long-term debt can be expected to vary as a result of future business requirements, market conditions, and other factors. The principal interest rate risks to which we are exposed relate to our investment portfolio and long-term debt obligations. We primarily utilize fixed-rate debt and do not expect changes in interest rates to have a material effect on income or cash flows in 2002.

The functional currency of our subsidiaries is generally the local currency. Our operating cash flows are denominated in various foreign currencies as a result of our international business activities and certain of our borrowings are exposed to changes in foreign exchange rates. We continually evaluate our foreign currency exposure based on current market conditions and the business environment. In order to mitigate the impact of changes in foreign currency exchange rates, we enter into forward exchange contracts. The magnitude and nature of such activities are explained further in Note 24 to the Consolidated Financial Statements.

We place our cash and cash equivalents with high credit quality financial institutions. We manage the credit risks associated with financial instruments through credit approvals, investment limits and centralized

**Table of Contents**

monitoring procedures but do not normally require collateral or other security from the parties to the financial instruments with off-balance sheet risk. We are averse to principal loss and manage the safety and preservation of our invested funds by limiting default risk, market risk and reinvestment risk.

We enter into forward contracts and foreign currency options to protect against the volatility of foreign currency exchange rates and to cover a portion of both our probable anticipated, but not firmly committed, transactions and transactions with firm foreign currency commitments. The risk of loss associated with purchased options is limited to premium amounts paid for the option contracts. The risk of loss associated with forward contracts is equal to the exchange rate differential from the date the contract is made until the time it is settled.

Forward contracts outstanding as of December 31, 2001 have remaining terms of one to six months, and mature on average after 98 days. The notional amounts of foreign exchange forward contracts totaled \$1,138.8 million at December 31, 2001, and \$780.4 million at December 31, 2000. The principal currencies covered are the U.S. dollar, the euro, the Japanese yen and the Swiss franc.

We do not anticipate any material adverse effect on our financial position, result of operations or cash flows resulting from the use of our instruments in the future. There can be no assurance that these strategies will be effective or that transaction losses can be minimized or forecasted accurately. We do not use financial instruments for speculative or trading purposes.

The information below summarizes our market risks associated with cash equivalents, debt obligations, and other significant financial instruments as of December 31, 2001. The information below should be read in conjunction with Notes 5, 15 and 24 to the Consolidated Financial Statements.

The table below presents principal amounts and related weighted-average interest rates by year of maturity for our investment portfolio and debt obligations (in thousands of U.S. dollars, except percentages):

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Thereafter</u>	<u>TOTAL</u>	<u>Fair value at December 31, 2001</u>
<b>Assets:</b>								
Cash equivalents	2,438,816						2,438,816	2,438,816
Average interest rate	2.08%						2.08%	
<b>Long-term debt:</b>								
Fixed rate	96,528	108,946	120,919	90,753	84,654	2,366,255	2,868,055	2,986,250
Average interest rate	5.32%	4.69%	3.93%	3.84%	3.59%	3.30%	3.48%	

**Amounts in thousands  
of U.S. dollars**

Long-term debt by currency as of December 31, 2001:

U.S. dollar	2,410,455
Italian lira	114,155
French franc	154,347
Other currencies	189,098

**TOTAL in U.S. dollars**

**2,868,055**

**Amounts in thousands  
of U.S. dollars**

Long-term debt by currency as of December 31, 2000:

U.S. dollar	2,445,569
Italian lira	128,398
French franc	199,593
Other currencies	32,894

**TOTAL in U.S. dollars**

**2,806,454**

**Table of Contents**

The following table provides information about our foreign exchange forward contracts at December 31, 2001 (in thousands of U.S. dollars):

<u>Buy</u>	<u>Sell</u>	<u>Notional Amount</u>	<u>Average Contractual Forward Exchange Rate</u>	<u>Fair Value</u>
Foreign currency forward exchange contracts to buy U.S. dollars for foreign currencies:				
U.S. dollar	Euro	668,035	0.88	3,313
U.S. dollar	Japanese yen	22,925	0.01	258
U.S. dollar	Canadian dollar	10,000	0.64	175
U.S. dollar	Malaysian ringgit	124,327	0.26	(71)
U.S. dollar	Singapore dollar	34,770	0.54	60
<b>Total</b>		<b>860,057</b>		<b>3,735</b>
Foreign currency forward exchange contracts to buy euros for foreign currencies:				
Euro	Maltese lira	3,525	2.47	(20)
Euro	Malaysian ringgit	2,573	0.30	19
Euro	U.S. dollar	40,414	0.89	(490)
<b>Total</b>		<b>46,512</b>		<b>(491)</b>
Foreign currency forward exchange contracts to buy Japanese yen for foreign currencies:				
Japanese yen	Euro	36,771	110.83	(1,447)
Japanese yen	Singapore dollar	6,468	71.04	5
<b>Total</b>		<b>43,239</b>		<b>(1,442)</b>
Foreign currency forward exchange contracts to buy Singapore dollars for foreign currencies:				
Singapore dollar	Malaysian ringgit	2,026	0.48	(11)
Singapore dollar	Euro	1,553	1.63	(10)
Singapore dollar	U.S. dollar	20,000	0.54	7
<b>Total</b>		<b>23,579</b>		<b>(14)</b>
Foreign currency forward exchange contracts to buy Malaysian ringgits for foreign currencies:				
Malaysian ringgit	U.S. dollar	23,132	0.26	3
<b>Total</b>		<b>23,132</b>		<b>3</b>
Foreign currency forward exchange contracts to buy Maltese lira for foreign currencies:				
Maltese lira	U.S. dollar	140,000	2.22	(1,054)
<b>Total</b>		<b>140,000</b>		<b>(1,054)</b>



Edgar Filing: STMICROELECTRONICS NV - Form 20-F

Foreign currency forward exchange contracts to buy Swiss francs for foreign currencies

Swiss franc	Euro	1,450	1.48	(4)
		<u>          </u>		<u>      </u>
<b>Total</b>		<b>1,450</b>		<b>(4)</b>
		<u>          </u>		<u>      </u>

Foreign currency forward exchange contracts to buy British pounds for foreign currencies:

British pound	Euro	826	0.61	2
		<u>      </u>	<u>      </u>	<u>      </u>
<b>Total</b>		<b>826</b>		<b>2</b>
		<u>      </u>		<u>      </u>
<b>TOTAL</b>		<b>1,138,795</b>		<b>735</b>
		<u>          </u>		<u>      </u>

**Table of Contents**

The following table provides information about our foreign exchange forward contracts at December 31, 2000 (in thousands of U.S. dollars):

<b>Buy</b>	<b>Sell</b>	<b>Notional Amount</b>	<b>Average Contractual Forward Exchange Rate</b>	<b>Fair Value</b>
Foreign currency forward exchange contracts to buy U.S. dollars for foreign currencies:				
U.S. dollar	Euro	273,082	0.89	(12,772)
U.S. dollar	French franc	25,000	7.30	(845)
U.S. dollar	Italian lira	96,112	1,738.98	18,779
U.S. dollar	Malaysian ringgit	106,063	3.79	206
U.S. dollar	Singapore dollar	94,360	1.73	(11)
<b>Total</b>		<b>594,617</b>		<b>5,357</b>
Foreign currency forward exchange contracts to buy euro for foreign currencies:				
Euro	Malaysian ringgit	5,155	3.25	415
Euro	U.S. dollar	60,000	0.85	6,121
<b>Total</b>		<b>65,155</b>		<b>6,536</b>
Foreign currency forward exchange contracts to buy Japanese yen for foreign currencies:				
Japanese yen	Euro	26,108	101.51	(1,465)
Japanese yen(1)	French franc	12,619	7.08	(1,959)
Japanese yen	Malaysian ringgit	3,684	0.03	(71)
<b>Total</b>		<b>42,411</b>		<b>(3,495)</b>
Foreign currency forward exchange contracts to buy Swiss francs for foreign currencies:				
Swiss franc	Euro	1,833	1.52	(6)
Swiss franc	French franc	2,138	4.36	(26)
Swiss franc	U.S. dollar	31,765	1.67	771
<b>Total</b>		<b>35,736</b>		<b>739</b>
Foreign currency forward exchange contracts to buy Singapore dollars for foreign currencies:				
Singapore dollar	Euro	418	1.61	(2)
Singapore dollar	Japanese yen	21,035	0.02	323
<b>Total</b>		<b>21,453</b>		<b>321</b>
Foreign currency forward exchange contracts to buy French francs for foreign currencies:				
French franc	U.S. dollar	15,000	7.79	1,551
<b>Total</b>		<b>15,000</b>		<b>1,551</b>

Edgar Filing: STMICROELECTRONICS NV - Form 20-F

Foreign currency forward exchange contracts to buy Swedish kroner for foreign currencies

Swedish kroner	U.S. dollar	4,560	9.49	7
<b>Total</b>		<b>4,560</b>		<b>7</b>

**Table of Contents**

Foreign currency forward exchange contracts to buy British pounds for foreign currencies:

British pound	French franc	1,491	11.06	(73)
		<u>          </u>		<u>          </u>
<b>Total</b>		<b>1,491</b>		<b>(73)</b>
		<u>          </u>		<u>          </u>
<b>TOTAL</b>		<b>780,423</b>		<b>10,943</b>
		<u>          </u>		<u>          </u>

(1) Forward exchange rate for 100 Japanese yen.

**Item 12. Description of Securities Other Than Equity Securities**

Not applicable.

**PART II****Item 13. Defaults, Dividend Arrearages and Delinquencies**

None.

**Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds**

None.

**Item 15. [Reserved]****Item 16. [Reserved]**

**Table of Contents****PART III****Item 17. Financial Statements**

Not applicable.

**Item 18. Financial Statements****Page****Financial Statements:**

<u>Report of Independent Accountants for Years Ended December 31, 2001, 2000 and 1999</u>	F-2
<u>Consolidated Statement of Income for the Years Ended December 31, 2001, 2000 and 1999</u>	F-3
<u>Consolidated Balance Sheet as at December 31, 2001 and 2000</u>	F-4
<u>Consolidated Statement of Cash Flows for the Years Ended December 31, 2001, 2000 and 1999</u>	F-5
<u>Consolidated Statement of Changes in Shareholders Equity for the Years Ended December 31, 2001, 2000 and 1999</u>	F-6
<u>Notes to Consolidated Financial Statements</u>	F-7

**Financial Statement Schedules:**

<u>For each of the three years in the period ended December 31, 2001 Schedule II Valuation and Qualifying Accounts</u>	S-1
<u>Report of Independent Accountants on Financial Statement Schedule</u>	S-2

**Item 19. Exhibits**

- 1.1 Proposed Articles of Association, as amended and approved by the annual general meeting of shareholders on March 27, 2002, of STMicroelectronics N.V. (pending filing with Dutch authorities)
- 4.1 Indenture, dated as of November 16, 2000, among STMicroelectronics N.V. as issuer and The Bank of New York, as Trustee, of our Zero Coupon Senior Convertible Bonds due 2010 (incorporated by reference to the Annual Report for the year ended December 31, 2000, as filed with the Commission on May 15, 2001)
- 8.1 Subsidiaries of the Company (see Note 3 to the Consolidated Financial Statements)
- 10.1 Consent of PricewaterhouseCoopers N.V.

**Table of Contents****CERTAIN TERMS**

ADSL	assymetrical digital subscriber line
ASD	application-specific discrete technology
ASIC	application-specific IC
ASSP	application-specific standard product
BCD	bipolar, CMOS and DMOS process technology
BiCMOS	bipolar and CMOS process technology
CAD	computer aided design
CIM	computer integrated manufacturing
CMOS	complementary metal oxide silicon
DMOS	diffused metal oxide silicon
DMT	Discrete Multi Tone
DRAMs	dynamic random access memory
DSP	digital signal processor
EMAS	the Eco-Management and Audit Scheme (EAMS) is the voluntary European Community scheme for companies performing industrial activities for the evaluation and improvement of environmental performance
EEPROM	electrically erasable programmable read-only memory
EPROM	erasable programmable read-only memory
GPS	global positioning system
HCMOS	high-speed complementary metal-oxide-silicon
HDD	hard-disk drive
IC	integrated circuit
ICU	Intelligent Controller Units
IGBT	insulated gate bipolar transistors
IPAD	Integrated Passive and Active Devices
Kbit	Kilobit
Mbit	Megabit
MEMS	Micro-Electro-Mechanical System
MOS	metal oxide silicon process technology
MOSFET	metal oxide silicon field effect transistor
MPEG	motion picture experts group
OEM	original equipment manufacturer
OTP	one-time programmable
PROM	programmable read-only memory
PSM	Programmable System Memories
RAM	random access memory
RF	radio frequency
RISC	reduced instruction set computing
ROM	read-only memory
SAM	serviceable available market
SiGe	silicon-germanium
SLIC	subscriber line interface card
SMPS	switch-mode power supply
SOC	System-on-Chip
SRAM	static random access memory
TAM	total available market
VIPOWER	vertical integration power
VLSI	very large scale integration
VDSL	very high-bit rate digital subscriber line
VoIP	voice over Internet protocol
XDSL	Digital Subscriber Line

**Table of Contents**

**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

STMICROELECTRONICS N.V.

**Pasquale Pistorio**  
**President and Chief Executive Officer**

Date: May 24, 2002

**Table of Contents**

**INDEX TO FINANCIAL STATEMENTS**

	<b><u>Page</u></b>
<b>Financial Statements:</b>	
<u>Report of Independent Accountants for Years Ended December 31, 2001, 2000 and 1999</u>	F-2
<u>Consolidated Statement of Income for the Years Ended December 31, 2001, 2000 and 1999</u>	F-3
<u>Consolidated Balance Sheet as at December 31, 2001 and 2000</u>	F-4
<u>Consolidated Statement of Cash Flows for the Years Ended December 31, 2001, 2000 and 1999</u>	F-5
<u>Consolidated Statement of Changes in Shareholders' Equity for the Years Ended December 31, 2001, 2000 and 1999</u>	F-6
<u>Notes to Consolidated Financial Statements</u>	F-7
<b>Financial Statement Schedules:</b>	
<u>For each of the three years in the period ended December 31, 2001 Schedule II Valuation and Qualifying Accounts</u>	S-1
<u>Report of Independent Accountants on Financial Statement Schedule</u>	S-2



**Table of Contents**

**REPORT OF INDEPENDENT ACCOUNTANTS**

To the Supervisory Board and Shareholders of  
STMicroelectronics N.V.:

In our opinion, the accompanying consolidated balance sheet and the related consolidated statement of income, of cash flows and of changes in shareholder s equity presents fairly, in all material respects, the financial position of STMicroelectronics N.V. and its subsidiaries at December 31, 2001 and December 31, 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company s management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Amsterdam, The Netherlands  
February 1, 2002, except for Note 27 as to which the date is April 15, 2002

F-2

Table of Contents

**STMICROELECTRONICS N.V.**  
**CONSOLIDATED STATEMENT OF INCOME**

	Year ended		
	December 31, 1999	December 31, 2000	December 31, 2001
	(In thousands of U.S. dollars, except per share amounts)		
Net sales	5,023,109	7,764,404	6,303,913
Other revenues	33,167	48,799	52,983
<b>Net revenues</b>	<b>5,056,276</b>	<b>7,813,203</b>	<b>6,356,896</b>
Cost of sales	(3,054,476)	(4,216,921)	(4,046,999)
<b>Gross profit</b>	<b>2,001,800</b>	<b>3,596,282</b>	<b>2,309,897</b>
Selling, general and administrative	(534,178)	(703,675)	(641,443)
Research and development	(835,964)	(1,026,348)	(977,931)
Other income and expenses	39,840	(83,533)	(6,019)
Impairment and restructuring charges			(345,515)
<b>Operating income</b>	<b>671,498</b>	<b>1,782,726</b>	<b>338,989</b>
Net interest income (expense)	35,624	46,703	(13,040)
Equity in loss of joint ventures			(4,790)
<b>Income before income taxes and minority interests</b>	<b>707,122</b>	<b>1,829,429</b>	<b>321,159</b>
Income tax expense	(157,214)	(375,119)	(61,060)
<b>Income before minority interests</b>	<b>549,908</b>	<b>1,454,310</b>	<b>260,099</b>
Minority interests	(2,656)	(2,207)	(3,032)
<b>Net income</b>	<b>547,252</b>	<b>1,452,103</b>	<b>257,067</b>
<b>Earnings per share (Basic)</b>	<b>0.64</b>	<b>1.64</b>	<b>0.29</b>
<b>Earnings per share (Diluted)</b>	<b>0.62</b>	<b>1.58</b>	<b>0.29</b>

The accompanying notes are an integral part of these consolidated financial statements

**Table of Contents**

**STMICROELECTRONICS N.V.**  
**CONSOLIDATED BALANCE SHEET**

	As at	
	December 31, 2000	December 31, 2001
	In thousands of U.S. dollars	
<b>ASSETS</b>		
<b>Current assets</b>		
Cash and cash equivalents	2,295,703	2,438,816
Marketable securities	35,155	5,390
Trade accounts receivable	1,496,446	902,366
Inventories	876,476	742,469
Other receivables and assets	554,035	468,618
	<u>5,257,815</u>	<u>4,557,659</u>
<b>Total current assets</b>		
Intangible assets, net	286,121	212,610
Property, plant and equipment, net	6,201,071	5,888,161
Investments and other non-current assets	135,488	139,087
	<u>6,622,680</u>	<u>6,239,858</u>
<b>Total assets</b>	<u>11,880,495</u>	<u>10,797,517</u>
<b>LIABILITIES AND SHAREHOLDERS EQUITY</b>		
<b>Current liabilities</b>		
Bank overdrafts	35,599	32,750
Current portion of long-term debt	105,972	96,528
Trade accounts payable	1,745,553	936,127
Other payables and accrued liabilities	509,165	409,542
Accrued and deferred income tax	299,638	212,402
	<u>2,695,927</u>	<u>1,687,349</u>
<b>Total current liabilities</b>		
Long-term debt	2,700,482	2,771,527
Reserves for pension and termination indemnities	110,244	115,751
Other non-current liabilities	216,235	112,213
	<u>3,026,961</u>	<u>2,999,491</u>
<b>Total liabilities</b>	<u>5,722,888</u>	<u>4,686,840</u>
<b>Commitments and contingencies</b>		
<b>Minority interests</b>	32,958	35,980
Common stock	1,133,739	1,142,358
Capital surplus	1,689,824	1,835,975
Accumulated result	3,977,316	4,198,610

Edgar Filing: STMICROELECTRONICS NV - Form 20-F

Accumulated other comprehensive loss	(676,230)	(868,963)
Treasury stock		(233,283)
	<u>                    </u>	<u>                    </u>
<b>Shareholders equity</b>	<b>6,124,649</b>	<b>6,074,697</b>
	<u>                    </u>	<u>                    </u>
<b>Total liabilities and shareholders equity</b>	<b>11,880,495</b>	<b>10,797,517</b>
	<u>                    </u>	<u>                    </u>

The accompanying notes are an integral part of these consolidated financial statements

F-4

Table of Contents

## STMICROELECTRONICS N.V.

## CONSOLIDATED STATEMENT OF CASH FLOWS

	Year ended		
	December 31, 1999	December 31, 2000	December 31, 2001
In thousands of U.S. dollars			
<b>Cash flows from operating activities:</b>			
Net income	547,252	1,452,102	257,067
Add (deduct) non-cash items:			
Depreciation and amortization	806,789	1,108,180	1,320,222
Amortization of discount on convertible debt	12,576	29,077	78,712
Impairment and restructuring charges			345,515
Gain on the sale of marketable securities		(8,952)	(27,153)
Other non-cash items	4,285	10,133	12,674
Minority interest in net income of subsidiaries	2,656	2,207	3,032
Deferred taxes	28,711	(4,535)	(82,740)
Changes in assets and liabilities			
Trade accounts receivable	(164,564)	(631,049)	544,905
Inventories	(38,340)	(299,993)	93,642
Trade accounts payable	208,899	579,436	(444,773)
Other assets and liabilities, net	61,018	186,214	(49,078)
	<u>1,469,282</u>	<u>2,422,820</u>	<u>2,052,026</u>
<b>Net cash provided by operating activities</b>	<b>1,469,282</b>	<b>2,422,820</b>	<b>2,052,026</b>
<b>Cash flows from investing activities:</b>			
Payment for purchases of tangible assets	(1,347,537)	(3,327,501)	(1,699,775)
Proceeds from the sale of marketable securities		9,901	30,509
Investment in intangible and financial assets	(190,290)	(240,591)	(126,854)
	<u>(1,537,827)</u>	<u>(3,558,191)</u>	<u>(1,796,121)</u>
<b>Net cash used in investing activities</b>	<b>(1,537,827)</b>	<b>(3,558,191)</b>	<b>(1,796,121)</b>
<b>Cash flows from financing activities:</b>			
Proceeds from issuance of long-term debt	756,836	1,661,202	556,636
Repayment of long-term debt	(48,080)	(87,223)	(433,353)
Increase (decrease) in short-term facilities	(110,308)	30,665	4,472
Capital increase	230,437	38,175	43,186
Payments to acquire treasury stock			(233,283)
Dividends paid	(22,848)	(26,603)	(35,773)
	<u>806,037</u>	<u>1,616,216</u>	<u>(98,115)</u>
<b>Net cash provided (used) by financing activities</b>	<b>806,037</b>	<b>1,616,216</b>	<b>(98,115)</b>
Effect of changes in exchange rates	(15,158)	(8,228)	(14,677)
	<u>722,334</u>	<u>472,617</u>	<u>143,113</u>
<b>Net cash increase</b>	<b>722,334</b>	<b>472,617</b>	<b>143,113</b>
<b>Cash and cash equivalents at beginning of the period</b>	<b>1,100,752</b>	<b>1,823,086</b>	<b>2,295,703</b>
	<u>1,823,086</u>	<u>2,295,703</u>	<u>2,438,816</u>
<b>Cash and cash equivalents at end of the period</b>	<b>1,823,086</b>	<b>2,295,703</b>	<b>2,438,816</b>

The accompanying notes are an integral part of these consolidated financial statements

F-5

Table of Contents

## STMICROELECTRONICS N.V.

## CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS EQUITY

	Common Stock	Capital Surplus	Treasury Stock	Accumulated Result	Accumulated Other Comprehensive Loss	Shareholders Equity
<b>In thousands of U.S. dollars, except per share amounts</b>						
Balance as of December 31, 1998	1,096,743	1,135,526		2,027,413	(176,372)	4,083,310
Capital increase	15,937	259,781				275,718
Comprehensive income:						
Net income				547,252		547,252
Other comprehensive loss, net of tax					(319,491)	(319,491)
Comprehensive income						227,761
Dividends, \$0.027 per share				(22,848)		(22,848)
Balance as of December 31, 1999	1,112,680	1,395,307		2,551,817	(495,863)	4,563,941
Capital increase	21,059	294,517				315,576
Comprehensive income:						
Net income				1,452,103		1,452,103
Other comprehensive loss, net of tax					(180,367)	(180,367)
Comprehensive income						1,271,736
Dividends, \$0.03 per share				(26,604)		(26,604)
Balance as of December 31, 2000	1,133,739	1,689,824		3,977,316	(676,230)	6,124,649
Capital increase	8,619	146,151				154,770
Repurchase of common stock			(233,283)			(233,283)
Comprehensive income:						
Net income				257,067		257,067
Other comprehensive loss, net of tax					(192,733)	(192,733)
Comprehensive income						64,334
Dividends, \$0.04 per share				(35,773)		(35,773)
<b>Balance as of December 31, 2001</b>	<b>1,142,358</b>	<b>1,835,975</b>	<b>(233,283)</b>	<b>4,198,610</b>	<b>(868,963)</b>	<b>6,074,697</b>

The accompanying notes are an integral part of these consolidated financial statements

---

**Table of Contents**

**STMICROELECTRONICS N.V.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. The Company**

STMicroelectronics N.V. (the Company) was formed in 1987 with the name of SGS-THOMSON Microelectronics by the combination of the semiconductor business of SGS Microelettronica (then owned by Società Finanziaria Telefonica (S.T.E.T.), an Italian corporation) and the non-military business of Thomson Semiconducteurs (then owned by Thomson-CSF, a French corporation) whereby each company contributed their respective semiconductor businesses in exchange for a 50% interest in the Company. The Company designs, develops, manufactures and markets a broad range of semiconductor integrated circuits and discrete devices that are used in a wide variety of microelectronic applications.

The Company is registered in The Netherlands with its statutory domicile in Amsterdam.

At December 31, 2001, 35.64% of issued shares of the Company (December 31, 2000: 43.77%) was owned by STMicroelectronics Holding II B.V., 63.31% was owned by the public (December 31, 2000: 56.23%), and 1.05% constituted treasury shares (December 31, 2000: 0.00%).

At December 31, 2000, and at December 31, 2001, STMicroelectronics Holding II B.V. was 100% owned by STMicroelectronics Holding N.V.

At December 31, 2000, STMicroelectronics Holding N.V. was owned as follows:

50% by FT1CI, a French holding company, whose shareholders were CEA-Industrie (51%) and France Telecom (49%)

50% by Finmeccanica, an Italian holding company, whose shareholders were the Istituto per la Ricostruzione Industriale S.p.a. (I.R.I.) (5%), the Italian Ministry of Treasury (32%) and the public (63%)

At December 31, 2001, STMicroelectronics Holding N.V. was owned as follows:

49% by FT1CI, a French holding company, whose shareholders are Areva (64%) (formerly known as CEA-Industrie) and France Telecom (36%)

51% by Finmeccanica, an Italian holding company, whose shareholders are the Italian Ministry of Treasury (32%) and the public (68%).

Under a shareholder's agreement terminating in December 2003, the French shareholder, FT1CI, and the Italian shareholder, Finmeccanica, have agreed to manage their interest in the Company through STMicroelectronics Holding II B.V. and to hold equal voting rights in STMicroelectronics Holding II B.V.

**2. Summary of accounting policies**

*2.1 Principles of consolidation*

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). The Company's consolidated financial statements include the assets, liabilities and results of operations of its majority-owned subsidiaries. The ownership of other interest holders is reflected as minority interests. Intercompany balances and transactions have been eliminated in consolidation.

*2.2 Use of estimates*

The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes to the financial statements. Actual results could differ from those estimates and may affect amounts reported in future periods.

*2.3 Foreign currency*

The U.S. dollar is the reporting currency for the Company because the dollar is the currency of reference in terms of market pricing in the worldwide semiconductor industry. Furthermore, there is no currency in which the majority of transactions are denominated,



and revenues from external sales in U.S. dollars exceed revenues in any other currency.

F-7

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The functional currency of each subsidiary throughout the group is generally the local currency. For consolidation purposes, assets and liabilities of these subsidiaries are translated at current rates of exchange at the balance sheet date. Income and expense items are translated at the average exchange rate for the period. The effects of translating the financial position and results of operations from local functional currencies are included in other comprehensive income .

Assets, liabilities, revenue, expenses, gains or losses arising from foreign currency transactions are recorded in the functional currency of the recording entity at the exchange rate in effect at the date of the transaction. At each balance sheet date, recorded balances denominated in a currency other than the recording entity's functional currency are translated at the exchange rate prevailing at that date. The related exchange gains and losses are recorded in the income statement.

The Company conducts its business on a global basis in various major international currencies. As a result, it is exposed to adverse movements in foreign currency exchange rates. The Company does enter into foreign exchange forward contracts and currency options to neutralize its exposure to changes in exchange rates and the associated risk arising from the denomination of certain assets and liabilities in foreign currencies in the Company's subsidiaries.

For the years ended December 31, 1999 and 2000, the recognition of gains and losses for forward foreign currency exchange contracts and currency options that were considered identifiable hedges was deferred until settlement of the underlying commitments. Realized gains and losses were recorded as other income or expense when the underlying exposure materialized or the hedged transaction was no longer expected to occur. The discount or premium on these forward contracts designated as a hedge was recorded as an asset or liability and amortized to interest expense over the term of the contract. For the forward contracts and currency options that were not considered identifiable hedges, gains and losses were recorded at each reporting period as other income or expense based on the fair market value of the forward contract.

During the first quarter of 2001, the Company adopted *Statement of Financial Accounting Standards No. 133 (FAS 133), Accounting for Derivative Instruments and Hedging Activities* and determined that the statement did not have a material impact on its consolidated results of operations, financial position or financial disclosure. This statement establishes accounting and reporting standards for derivative instruments and requires recognition of all derivatives as assets or liabilities in the balance sheet, and the measurement of those instruments at fair value. The Company's only derivative instruments include forward foreign currency exchange contracts and currency options that do not qualify as hedging instruments under FAS 133. These instruments are marked-to-market based on the forward rates and option prices provided by independent banking institutions and the gains or losses are recorded as other income or expense.

**2.4 Reclassifications**

Certain prior year amounts have been reclassified to conform with the current year presentation.

**2.5 Income recognition****Sales**

Revenue on sales of semiconductor products is recognized upon transfer of the ownership of the goods at shipment. A portion of the Company's sales are made to distributors who participate in certain programs common in the semiconductor industry whereby the distributors are allowed to return merchandise under certain circumstances and may receive future price reductions. Provision is made at the time of sale for estimated product returns and price protection which may occur under programs the Company has with these customers.

**Fundings**

Government fundings are recognized as the related costs are incurred, commencing when the fundings contract is signed with the relevant government department or agency. Government fundings for research and development are included in other income and expenses . Government fundings for capital expenditures are deducted from the cost of the related fixed assets and reduce depreciation over the assets' remaining estimated useful lives.

---

**Table of Contents**

**STMICROELECTRONICS N.V.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

***Other revenue***

Other revenue consists of co-development contract fees, certain contract indemnity payments and patent royalty income. Other revenue is recognized ratably over the term of the agreement.

In December 1999, the Securities and Exchange Commission released Staff Accounting Bulletin No. 101, *Revenue Recognition in Financial Statements* (SAB 101), providing the staff's view on applying generally accepted accounting principles to selected revenue recognition issues. The Company adopted SAB 101 in the fourth quarter of 2000, as required. The adoption of SAB 101 did not have a material effect on the Company's financial position or overall trends in results of operations.

***2.6 Advertising costs***

Advertising costs are expensed as incurred. Advertising expenses for 1999, 2000 and 2001 were \$21,102, \$30,421 and \$21,184 respectively.

***2.7 Research and development***

Research and development costs are charged to expense as incurred. Research and development costs include costs incurred by the Company as well as the Company's share of costs incurred by other research and development interest groups.

***2.8 Start-up costs***

Start-up costs represent manufacturing costs incurred in the Company's new manufacturing facilities, before reaching a minimum level of production, and are included in other income and expenses in the accompanying consolidated statement of income.

***2.9 Income taxes***

The provision for current taxes represents the income taxes expected to be payable for the current year. Deferred tax assets and liabilities are recorded for all temporary differences arising between the tax and book bases of assets and liabilities and for the benefits of tax credits and loss carryforwards. Those deferred tax assets and liabilities are measured using the enacted tax rates at which they are expected to be realized or paid. A valuation allowance is provided where necessary to reduce deferred tax assets to the amount for which management considers the possibility of recovery to be more likely than not.

***2.10 Earnings per share***

Basic earnings per share are computed by dividing net income by the weighted average number of common shares outstanding during the period. Diluted earnings per share are computed by dividing net income (add-back interest expense, net of tax effects, related to convertible debt) by the weighted average number of common shares and common share equivalents outstanding during the period. The weighted average shares used to compute diluted earnings per share include the incremental shares of common stock relating to outstanding options and convertible debt to the extent such incremental shares are dilutive.

***2.11 Cash equivalents***

All highly liquid investments purchased with an original maturity of ninety days or less are considered to be cash equivalents.

***2.12 Marketable securities***

Management determines the appropriate classification of debt and equity securities at the time of purchase and reassesses the classification at each reporting date. Certain marketable securities, which do not have a readily determinable fair value, are carried at cost. Those marketable securities classified as available-for-sale are reported at fair value with net unrealized gains or losses reported as a separate component of comprehensive income in the statement of shareholders' equity. Other than temporary losses are recorded in net income based on the Company's assessment of any significant, sustained reductions in the investment's market value and of the market indicators affecting the securities. Gains and losses on securities sold are determined based on the specific identification method and are recorded as other income or expense.



**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)***2.13 Trade accounts receivable*

Trade accounts receivable are stated net of allowances for doubtful accounts. In addition to any specifically identified amounts, the Company records a general provision of 1.5% for potentially uncollectable balances.

*2.14 Inventories*

Inventories are stated at the lower of cost or market. Cost is computed by adjusting standard cost to approximate actual cost on a quarterly average basis. Appropriate provisions are estimated for uncommitted inventories based on order backlog and the previous quarter's sales, and obsolete stock is written off as identified.

*2.15 Intangible assets*

Intangible assets include the cost of technologies and licenses purchased from third parties, amortized over a period ranging from three to seven years, and goodwill acquired in business combinations amortized over its estimated useful life, generally three to five years. Intangible assets are reflected net of any impairment losses. The carrying value of intangibles is evaluated whenever changes in circumstances indicate the carrying amount may not be recoverable. In determining recoverability, the Company estimates the expected future cash flow and compares this to the carrying value of the identifiable intangibles. If the anticipated undiscounted future cash flows are less than the carrying amount, the Company recognizes an impairment loss for the difference between the carrying amount of the assets and their estimated fair value. Significant estimates used in determining expected undiscounted future cash flows include the applicable industry's evolution, the Company's market penetration and the market acceptance of certain new technologies.

*2.16 Property, plant and equipment*

Property, plant and equipment are stated at cost, net of government fundings and any impairment losses. Major renewals and improvements are capitalized; minor replacements, maintenance and repairs are charged to current operations.

Depreciation is computed using the straight-line method over the following estimated useful lives:

Buildings	33 years
Leasehold improvements	10 years
Machinery and equipment	6 years
Computer and R&D equipment	3-6 years
Other	2-5 years

Similar to intangible assets, any impairment losses are based on the difference between the carrying value and their estimated fair value after assessing the expected undiscounted future cash flows. Significant estimates used to determine expected undiscounted future cash flows include the industry evolution, utilization of fabrication facilities and the ability to upgrade such sites, changes in selling price and the adoption of new technologies.

Assets subject to leasing agreements and classified as capital leases are included in property, plant and equipment and depreciated over the shorter of the estimated useful life or the lease term.

When property, plant or equipment is retired or otherwise disposed of, the net book value of the asset is removed from the Company's books and the net gain or loss is included in other income and expenses.

*2.17 Investments*

The equity accounting method is used to account for joint ventures when the Company has both a 20% to 50% equity interest and the ability to exercise significant influence over the investee.

The Company also holds certain equity investments constituting less than 20% ownership of the investee. These investments are carried at historical cost. Although the market value of the investments is not readily determinable, management believes the fair value of these investments exceed their carrying amounts.

## Edgar Filing: STMICROELECTRONICS NV - Form 20-F

For those investments with readily determinable market values, the Company has accounted for those investments as available-for-sale. These investments are reported at fair value with the net unrealized gains or losses reported as a separate component of comprehensive income in the statement of shareholders' equity. Other than temporary losses recorded in net income are based on the Company's assessment of any significant, sustained reductions in the

F-10

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

investment's market value and of the market indicators affecting the securities. Gains and losses on investments sold are determined on the specific identification method and are recorded as other income or expense.

**2.18 Pension and termination indemnities**

The Company sponsors various retirement plans for its employees; such plans include both defined benefit and defined contribution plans. Upon retirement, the Company's employees receive benefits provided by the pension plan arrangements. These plans conform with local regulations and practices of the countries in which the Company operates. Assumptions used in calculating net periodic pension cost are determined by input from independent actuaries.

**2.19 Comprehensive income**

Comprehensive income is defined as the change in equity of a business during a period from transactions and circumstances related to non-shareholder sources, and includes all changes in equity except those resulting from investment by shareholders and distributions to shareholders. In the Company's case, other comprehensive loss consists of foreign currency translation adjustments, the unrealized gain or loss on marketable securities classified as available-for-sale and the excess of the minimum pension liability over the unrecognized prior service cost of certain pension plans.

**2.20 Stock splits**

In April 2000, the Company's shareholders approved a three-for-one stock split of the Company's common stock. The record date for the stock split was May 5, 2000, and the distribution date was May 6, 2000. All earnings per share amounts, references to common stock, shareholders' equity amounts and stock option plan data have been restated as if the stock splits had occurred as of the earliest period presented.

**2.21 New accounting pronouncements**

In July 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 141, *Business Combinations* (FAS 141), which is applicable for all business combinations initiated after June 30, 2001. This statement eliminates the use of the pooling-of-interests method and provides specific criteria for the recognition of intangible assets apart from goodwill. The Company has not entered into any business combinations, which would require the application of FAS 141.

In July 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets* (FAS 142), which will be effective for fiscal years beginning after December 15, 2001. FAS 142 primarily addresses the accounting that must be applied to goodwill and intangible assets subsequent to their initial recognition. In particular, the statement requires that goodwill and indefinite lived intangible assets be no longer amortized but be subject to annual impairment tests to determine the appropriate carrying value. FAS 142 also requires the reclassification of any intangible assets, which do not meet the FAS 141 criteria for recognition separately from goodwill. The Company adopted the provisions of FAS 142 in the first quarter of 2002. In connection with the adoption of FAS 142, the Company reclassified \$2,771 of its intangible assets to goodwill, which had a total carrying value after this reclassification of \$65,817 at January 1, 2002. For the existing goodwill and the reclassified intangible assets, the Company will no longer record \$16,854 of goodwill amortization in 2002, as would have been required prior to the adoption of FAS 142. Additionally, management performed the transitional impairment review required by FAS 142 and determined that no adjustment for impairment loss is required as a result of adopting the standard. For the period ended December 31, 2001, the Company evaluated intangible assets and goodwill under Statement of Financial Accounting Standards No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*.

In August 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets* (FAS 144). This statement retains the requirements of FAS 121 to recognize an impairment loss only if the carrying amount of a long-lived asset is not recoverable from its undiscounted cash flows. The Company has adopted the standards required by this statement in the first quarter of 2002. Management believes that adoption of FAS 144 has not had a material effect on the Company's financial position, or results of operations.

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****3. Consolidated entities**

The consolidated financial statements include the accounts of STMicroelectronics N.V. and the following entities as of December 31, 2001:

<u>Legal Seat</u>	<u>Name</u>	<u>Percentage Ownership (Direct or Indirect)</u>
Australia	STMicroelectronics PTY LTD	100
Brazil	STMicroelectronics Ltda	100
Canada	STMicroelectronics (Canada), Inc.	100
China	Shenzhen STS Microelectronics Co. LTD	60
China	STMicroelectronics (Shanghai) Co. LTD	100
Czech Republic	STMicroelectronics Design and Application s.r.o.	100
Finland	STMicroelectronics OY	100
France	STMicroelectronics S.A.	100
France	STMicroelectronics (Rousset) S.A.S.	100
France	Waferscale Integration Sarl	100
Germany	STMicroelectronics GmbH	100
Hong Kong	STMicroelectronics LTD	100
India	STMicroelectronics Pvt Ltd	100
Israel	STMicroelectronics Ltd	100
Italy	Accent S.r.l.	51
Italy	CO.RI.M.ME	100
Italy	STMicroelectronics S.r.l.	100
Japan	STMicroelectronics KK	100
Malaysia	STMicroelectronics (Malaysia) SDN BHD	100
Malaysia	STMicroelectronics SDN BHD	100
Malta	STMicroelectronics LTD	100
Morocco	Electronic Holding S.A.	100
Morocco	STMicroelectronics S.A.	100
Singapore	STMicroelectronics ASIA PACIFIC Pte Ltd	100
Singapore	STMicroelectronics Pte Ltd	100
Spain	STMicroelectronics S.A.	100
Sweden	STMicroelectronics A.B.	100
Switzerland	STMicroelectronics S.A.	100
United Kingdom	STMicroelectronics E.E.I.G.	100
United Kingdom	STMicroelectronics Ltd	100
United Kingdom	Inmos Ltd	100
United Kingdom	Thomson Components Ltd	100



United States	Metaflow Technologies Inc.	100
United States	STMicroelectronics (RB), Inc.	100
United States	STMicroelectronics Inc.	100
United States	STMicroelectronics Leasing Co. Inc.	100
United States	The Portland Group, Incorporated	100

**4. Joint venture**

During the third quarter of 2001, the Company and Hitachi, Ltd. formed a joint venture to develop and license RISC microprocessors. The joint venture, SuperH, Inc., was capitalized with the Company's contribution of \$14,880 of cash plus internally developed technologies with an agreed intrinsic value of \$14,160 for a 44% interest. Hitachi, Ltd. contributed \$36,960 of cash for a 56% interest. Under the agreement, the Company could be required to additionally contribute up to \$25,120 in cash to the joint venture through September, 2003.

Table of Contents

## STMICROELECTRONICS N.V.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The Company is accounting for its 44% share of the joint venture under the equity method based on the actual results of the joint venture. At December 31, 2001, the Company's investment totaled \$10,090 and is reflected in investment and other non-current assets. The losses from the joint venture are shown separately in the consolidated statement of income.

**5. Available-for-sale marketable securities**

The Company has classified certain marketable securities as available-for-sale, which relate to equity securities held as strategic investments in various companies. These marketable securities are classified as current and non-current assets and consist of the following:

	December 31, 2000			
	Cost	Unrealized gain	Unrealized loss	Fair value
Equity securities classified as current assets	4,050	31,106		35,156
Equity securities classified as non-current assets	27,781		(20,844)	6,937
<b>Total</b>	<b>31,831</b>	<b>31,106</b>	<b>(20,844)</b>	<b>42,093</b>

  

	December 31, 2001			
	Cost	Unrealized gain	Unrealized loss	Fair value
Equity securities classified as current assets	541	2,645		3,186
Equity securities classified as non-current assets	5,735		(2,442)	3,293
<b>Total</b>	<b>6,276</b>	<b>2,645</b>	<b>(2,442)</b>	<b>6,479</b>

For fiscal years 1999, 2000 and 2001, gross realized gains associated with the sale of the investments were \$0, \$8,952 and \$24,990, respectively.

**6. Trade accounts receivable**

Trade accounts receivable consist of the following:

	December 31, 2000	December 31, 2001
Trade accounts receivable	1,512,270	921,761
Less valuation allowance	(15,824)	(19,395)
<b>Total</b>	<b>1,496,446</b>	<b>902,366</b>

In 1999, 2000 and 2001, one customer, the Nokia group of companies, represented 11.4%, 13.4% and 19.3% of consolidated net revenues, respectively.

**7. Inventories**

Inventories consist of the following:

	<b>December 31, 2000</b>	<b>December 31, 2001</b>
	<u>                    </u>	<u>                    </u>
Raw materials	88,501	52,426
Work-in-process	588,263	534,020
Finished products	199,712	156,023
	<u>                    </u>	<u>                    </u>
<b>Total</b>	<b>876,476</b>	<b>742,469</b>
	<u>                    </u>	<u>                    </u>

The Company recorded a special inventory charge for obsolescence of \$70.7 million in cost of sales in the second quarter of 2001. This charge was due to the cancellation of customers' order backlog that resulted in unusable quantities of work-in-process and finished goods inventory.

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****8. Other receivables and assets**

Other receivables and assets consist of the following:

	December 31, 2000	December 31, 2001
Receivables from government agencies	139,418	71,616
Taxes and other government receivables	99,499	2,164
Down payment to suppliers	20,283	22,146
Loans to employees	3,914	8,655
Prepaid expenses	71,800	152,017
Sundry debtors	97,708	120,876
Deferred tax assets	71,651	53,253
Other	49,762	37,891
<b>Total</b>	<b>554,035</b>	<b>468,618</b>

Receivables from government agencies relate to research and development contracts, industrialization contracts and capital expenditures.

**9. Intangible assets**

Intangible assets consist of the following:

	December 31, 2000	December 31, 2001
Goodwill	116,898	86,193
Technologies and licenses	315,532	277,007
Less accumulated amortization	(146,309)	(150,590)
<b>Total</b>	<b>286,121</b>	<b>212,610</b>

In the second quarter of 2001, an impairment charge was recorded to reduce the carrying value of intangible assets by \$97,300. See Note 19.

**10. Property, plant and equipment**

Property, plant and equipment consist of the following:

	December 31, 2000		
	Gross	Depreciation	Net
Land and buildings	710,456	(144,422)	566,034
Machinery and equipment	8,698,233	(3,689,854)	5,008,379
Other tangible fixed assets	385,581	(254,406)	131,175
Construction in progress	495,483		495,483

Edgar Filing: STMICROELECTRONICS NV - Form 20-F

<b>Total</b>	<b>10,289,753</b>	<b>(4,088,682)</b>	<b>6,201,071</b>
	<b>December 31, 2001</b>		
	<b>Gross</b>	<b>Depreciation</b>	<b>Net</b>
Land and buildings	827,377	(145,081)	682,296
Machinery and equipment	9,027,350	(4,172,638)	4,854,712
Other tangible fixed assets	389,811	(256,152)	133,659
Construction in progress	217,494		217,494
<b>Total</b>	<b>10,462,032</b>	<b>(4,573,871)</b>	<b>5,888,161</b>

F-14

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

In the second and third quarters of 2001, an impairment charge was recorded to reduce the carrying values of property plant and equipment by \$176,700 and \$23,300, respectively. See Note 19.

**11. Investments and other non-current assets**

Investments and other non-current assets consist of the following:

	December 31, 2000	December 31, 2001
Investments	18,132	31,720
Long-term deposits and receivables	66,426	57,879
Deferred tax assets	15,916	18,255
Debt issuance costs, net	35,014	31,233
<b>Total</b>	<b>135,488</b>	<b>139,087</b>

In the second quarter of 2001, an impairment charge was recorded to reduce the carrying value of certain investments by \$22,300. See Note 19.

**12. Shareholders equity***Public offerings of shares*

In connection with a secondary offering of common stock in September 1999, the Company issued 8,970,000 new shares of common stock, which resulted in an increase in common stock and capital surplus of \$9,740 and \$207,027, respectively.

*Outstanding shares*

The authorized share capital of the Company is EUR 1,809,600,000, consisting of 1,200,000,000 common shares and 540,000,000 preference shares each with a nominal value of EUR 1.04. As of December 31, 1999, 2000, and 2001 the number of shares of common stock outstanding was 869,424,420 shares, 889,881,287 shares and 889,699,181 shares, respectively. There were no preference shares outstanding as of December 31, 1999, 2000 and 2001.

*Preference shares*

The 540,000,000 preference shares entitle a holder to full voting rights and to a preferential right to dividends and distributions upon liquidation. The Company entered into an option agreement with STMicroelectronics Holding II B.V. in order to protect the Company from a hostile takeover or other similar action. The option agreement provides for 540,000,000 preference shares to be issued to STMicroelectronics Holding II B.V. upon their request based on approval by the Company's Supervisory Board. STMicroelectronics Holding II B.V. would be required to pay at least 25% of the par value of the preference shares to be issued, and to retain ownership of at least 30% of the Company's issued share capital.

*Treasury shares*

As of December 31, 2001, 9,400,000 shares of common stock totaling \$233,283 have been repurchased and reflected at cost as a reduction of shareholders' equity. The repurchased shares have been designated to fund the Company's most recent employee stock option plan.

*Stock option plans*

In 1995, the Shareholders voted to adopt the 1995 Stock Option Plan (the "1995 Plan") whereby options for up to 33,000,000 shares may be granted in installments over a five year period. Under the 1995 Plan, the options may be granted to purchase

Edgar Filing: STMICROELECTRONICS NV - Form 20-F

shares of common stock at a price not lower than the market price of the shares on the date of grant. Under the 1995 Plan at December 31, 2001, 17,495,780 of the granted options outstanding vest 50% after three years and 50% after four years following the date of the grant; 7,254,096 of the granted options vest 32% after two years, 32% after three years and 36% after four years following the date of the grant.

F-15

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

In 1996, the Shareholders voted to adopt the Supervisory Board Option Plan whereby each member of the Supervisory Board was eligible to receive, during the three-year period 1996-1998, 18,000 options for 1996 and 9,000 options for both 1997 and 1998, to purchase shares of common stock at the closing market price of the shares on the date of the grant. In the same three-year period, each professional of the Supervisory Board was eligible to receive 9,000 options for 1996 and 4,500 options for both 1997 and 1998. Under the Plan, the options vest over one year and are exercisable for a period expiring eight years from the date of grant.

In 1999, the Shareholders voted to renew the Supervisory Board Option Plan whereby each member of the Supervisory Board may receive, during the three-year period 1999-2001, 18,000 options for 1999 and 9,000 options for both 2000 and 2001, to purchase shares of capital stock at the closing market price of the shares on the date of the grant. In the same three-year period, each professional of the Supervisory Board may receive 9,000 options for 1999 and 4,500 options for both 2000 and 2001. Under the Plan, the options vest over one year and are exercisable for a period expiring eight years from the date of grant.

In 2001, the Shareholders voted to adopt the 2001 Stock Option Plan (the 2001 Plan ) whereby options for up to 60,000,000 shares may be granted in installments over a five-year period. The options may be granted to purchase shares of common stock at a price not lower than the market price of the shares on the date of grant. Under the 2001 Plan, 32% of the options granted vest after two years, 32% after three years and 36% after four years following the date of the grant. The options granted are exercisable over a period of ten years.

A summary of stock option activity for the plans for the three years ended December 31, 2001, follows:

	Number of Shares	Price Per Share	
		Range	Weighted Average
Outstanding at December 31, 1998	15,588,330	\$1.54-\$14.23	\$9.53
Options granted:			
1995 Plan	8,878,200	\$24.88	\$24.88
Supervisory Board Plan	180,000	\$24.88	\$24.88
Options cancelled	(161,640)	\$6.04-\$24.88	\$14.30
Options exercised	(2,767,200)	\$1.33-\$14.23	\$5.47
Outstanding at December 31, 1999	21,717,690	\$6.04-\$24.88	\$16.41
Options granted:			
1995 Plan	7,570,890	\$50.69-\$62.01	\$58.77
Supervisory Board Plan	103,500	\$62.01	\$62.01
Options cancelled	(253,950)	\$6.04-\$62.01	\$27.57
Options exercised	(1,988,195)	\$6.04-\$24.88	\$6.94
Outstanding at December 31, 2000	27,149,935	\$6.04-\$62.01	\$28.98
Options granted:			
1995 Plan	139,851	\$31.65-\$44.00	\$33.99
2001 Plan	9,599,000	\$29.61-\$39.00	\$38.92
Supervisory Board Plan	112,500	-\$39.00	\$39.00
Options cancelled	(956,750)	\$6.04-\$62.01	\$39.90
Options exercised	(1,372,935)	\$6.04-\$24.88	\$10.36
<b>Outstanding at December 31, 2001</b>	<b>34,671,601</b>	<b>\$6.04-\$62.01</b>	<b>\$32.22</b>



**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Stock options exercisable were as follows:

	December 31, 1999	December 31, 2000	December 31, 2001
Options exercisable	2,631,330	5,149,338	7,640,893
Weighted average exercise price	\$ 6.46	\$ 9.72	\$ 11.91

The weighted average remaining contractual life of options outstanding as of December 31, 1999, December 31, 2000 and December 31, 2001 was 6.4, 6.1 and 6.3 years, respectively.

The range of exercise prices, the weighted average exercise price and the weighted average remaining contractual life of options outstanding as of December 31, 2001 was as follows:

Number of shares	Option price range	Weighted average exercise price	Weighted average remaining contractual life
2,388,470	\$ 6.04	\$ 6.04	2.2 years
57,000	\$ 9.00	\$ 9.00	2.8 years
3,667,255	\$ 12.03	\$ 12.03	4.6 years
3,069,295	\$ 14.23	\$ 14.23	3.7 years
8,626,260	\$ 24.88	\$ 24.88	5.7 years
61,900	\$ 29.61	\$ 29.61	9.8 years
16,000	\$ 29.70	\$ 29.70	9.7 years
105,110	\$ 31.65	\$ 31.65	7.2 years
9,441,325	\$ 39.00	\$ 39.00	9.3 years
26,501	\$ 44.00	\$ 44.00	7.0 years
1,879,920	\$ 50.69	\$ 50.69	7.0 years
55,025	\$ 52.88	\$ 52.88	6.7 years
85,140	\$ 55.25	\$ 55.25	6.1 years
5,192,400	\$ 62.01	\$ 62.01	6.5 years

The range of exercise prices, the weighted average exercise price and the weighted average remaining contractual life of options exercisable as of December 31, 2001 was as follows:

Number of shares	Option price range	Weighted average exercise price	Weighted average remaining contractual life
2,388,470	\$ 6.04	\$ 6.04	2.2 years
3,069,295	\$ 14.23	\$ 14.23	3.7 years
57,000	\$ 9.00	\$ 9.00	2.8 years
1,856,128	\$ 12.03	\$ 12.03	4.6 years
180,000	\$ 24.88	\$ 24.88	5.7 years
90,000	\$ 62.01	\$ 62.01	6.5 years

*Employee stock purchase plans*

In November 2000, the Company offered to certain of its employees worldwide the right to acquire up to 275 shares of capital stock per employee, at a price of \$38.68 (45.00 euros) per share, representing a discount of fifteen percent from the market price. A total

## Edgar Filing: STMICROELECTRONICS NV - Form 20-F

of 559,929 shares were issued to participating employees worldwide as a result of the offering.

In May 2001, the Company offered to certain of its employees worldwide the right to acquire up to 328 shares of capital stock per employee, at a price of \$32.32 (36.81 euros) per share, representing a discount of fifteen percent

F-17

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

from the market price. A total of 580,817 shares were issued to participating employees worldwide as a result of the offering.

In December 2001, the Company offered to certain of its employees worldwide the right to acquire up to 371 shares of capital stock per employee, at a price of \$28.60 (32.14 euros) per share, representing a discount of fifteen percent from the market price. A total of 384,566 shares were issued to participating employees worldwide as a result of the offering.

*Fair value of stock-based compensation*

The Company has various stock option plans and employee stock purchase plans, as described above. The Company applies the intrinsic-value-based method prescribed by Accounting Principles Board Opinion No. 25 *Accounting for Stock Issued to Employees* (APB 25), and related Interpretations, in accounting for stock-based awards to employees. Under APB 25, the Company generally recognizes no compensation expense with respect to such awards.

Pro forma information regarding net income and earnings per share is required by Statement of Financial Accounting Standards No. 123 *Accounting for Stock-Based Compensation* (FAS 123) as if the Company had accounted for its stock-based awards to employees under the fair value method prescribed by FAS 123. The fair value of the Company's stock-based awards to employees was estimated using a Black-Scholes option pricing model.

The fair value was estimated using the following weighted-average assumptions:

	<u>1999</u>	<u>2000</u>	<u>2001</u>
Expected life (years)	5	5	5
Volatility	41.0%	42.2%	57.4%
Risk-free interest rate	5.8%	6.0%	4.5%
Dividend yield	0.10%	0.05%	0.10%

The weighted average fair value of options granted during 1999, 2000 and 2001 was \$11.08, \$27.12 and \$20.48 per option, respectively.

If compensation cost for the Company's stock-based compensation plans had been determined based on the fair value at the grant dates consistent with FAS 123, the Company's net income and earnings per share would have been adjusted to the pro forma amounts indicated below:

	<u>Year ended Dec 31, 1999</u>	<u>Year ended Dec 31, 2000</u>	<u>Year ended Dec 31, 2001</u>
Net income			
Pro forma	522,593	1,387,278	130,596
Pro forma earnings per share			
Basic	0.61	1.57	0.15
Diluted	0.59	1.51	0.14

These pro forma amounts include amortized fair values attributable to stock-based awards granted after December 31, 1995 only, and are therefore not representative of future pro forma amounts.

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)***Other comprehensive loss*

The accumulated balances related to each component of other comprehensive loss were as follows:

	<u>Foreign currency translation loss</u>	<u>Unrealized gain (loss) on securities</u>	<u>Minimum pension liability adjustment</u>	<u>Accumulated other comprehensive loss</u>
Balance as of December 31, 1998	(176,372)			(176,372)
Other comprehensive loss, net of tax	(319,491)			(319,491)
Balance as of December 31, 1999	(495,863)			(495,863)
Other comprehensive income (loss), net of tax	(190,629)	10,262		(180,367)
Balance as of December 31, 2000	(686,492)	10,262		(676,230)
Other comprehensive loss, net of tax	(170,855)	(10,059)	(11,819)	(192,733)
<b>Balance as of December 31, 2001</b>	<b>(857,347)</b>	<b>203</b>	<b>(11,819)</b>	<b>(868,963)</b>

**13. Earnings per share**

For the years ended December 31, 1999, 2000 and 2001, earnings per share (EPS) was calculated as follows:

	<u>Year ended Dec 31, 1999</u>	<u>Year ended Dec 31, 2000</u>	<u>Year ended Dec 31, 2001</u>
<b>Basic EPS</b>			
Net income	547,252	1,452,103	257,067
Weighted average shares outstanding	859,111,668	885,728,493	893,267,868
Basic EPS	0.64	1.64	0.29
<b>Diluted EPS</b>			
Net income	547,252	1,452,103	257,067
Convertible debt interest, net of tax	13,387	28,204	0
Net income adjusted	560,639	1,480,307	257,067
Weighted average shares outstanding	859,111,668	885,728,493	893,267,868
Dilutive effect of stock options	7,995,558	13,831,539	8,715,097
Dilutive effect of convertible debt	34,116,684	36,499,180	0
Number of shares used in calculating EPS	901,223,910	936,059,212	901,982,965
Diluted EPS	0.62	1.58	0.29

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****14. Retirement plans**

The Company and its subsidiaries have a number of defined benefit pension plans covering employees in various countries. The plans provide for pension benefits, the amounts of which are calculated based on factors such as years of service and employee compensation levels. Eligibility is generally determined in accordance with local statutory requirements.

	<b>December 31, 2000</b>	<b>December 31, 2001</b>
	<u>                    </u>	<u>                    </u>
<b>Change in benefit obligation:</b>		
Benefit obligation at beginning of year	102,363	122,505
Service cost	7,762	9,495
Interest cost	6,189	7,737
Benefits paid	(2,532)	(2,025)
Actuarial losses	14,053	4,019
Foreign currency translation adjustments	(5,964)	(3,460)
Other	634	342
	<u>                    </u>	<u>                    </u>
Benefit obligation at end of year	122,505	138,613
	<u>                    </u>	<u>                    </u>
<b>Change in plan assets:</b>		
Plan assets at fair value at beginning of year	99,448	95,288
Actual return on plan assets	1,266	(6,600)
Employer contributions	2,777	6,888
Benefits paid	(2,532)	(2,026)
Foreign currency translation adjustments	(6,076)	(2,451)
Other	405	291
	<u>                    </u>	<u>                    </u>
Plan assets at fair value at end of year	95,288	91,390
	<u>                    </u>	<u>                    </u>
Funded status	(27,217)	(47,223)
Unrecognized prior service cost	6,967	6,110
Unrecognized transition obligation	(2,310)	(1,975)
Unrecognized actuarial loss	16,957	33,177
	<u>                    </u>	<u>                    </u>
<b>Accrued benefit cost</b>	(5,603)	(9,911)
	<u>                    </u>	<u>                    </u>
<b>Net amount recognized in the balance sheet consists of the following:</b>		
Prepaid benefit cost	7,423	778
Accrued benefit liability	(15,174)	(24,942)
Intangible asset	2,148	2,434
Accumulated other comprehensive loss		11,819
	<u>                    </u>	<u>                    </u>
<b>Net amount recognized</b>	(5,603)	(9,911)
	<u>                    </u>	<u>                    </u>

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The weighted average assumptions used in the determination of the net pension cost for the pension plans were as follows:

<b>Assumptions</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Discount rate	6.30%	6.22%	6.09%
Salary increase rate	3.81%	4.15%	4.03%
Expected rate of return on funds	7.04%	6.20%	6.65%

The components of the net periodic benefit cost includes the following:

	<b>December 31, 1999</b>	<b>December 31, 2000</b>	<b>December 31, 2001</b>
Service cost	8,087	7,762	9,495
Interest cost	5,693	6,189	7,737
Expected return on plan assets	(5,956)	(7,020)	(6,944)
Amortization of unrecognized transition obligation	(324)	(303)	(295)
Recognized gains and losses	503	70	(69)
Recognition of prior service cost	850	847	846
<b>Net periodic benefit cost</b>	<b>8,853</b>	<b>7,545</b>	<b>10,770</b>

The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for the pension plans with accumulated benefit obligations in excess of plan assets were \$6,737, \$6,638 and \$2,560, respectively, as of December 31, 2000 and \$113,056, \$93,426 and \$83,961, respectively, as of December 31, 2001.

The Company also has defined contribution pension plans which provide retirement benefits to certain of its employees. The benefit accrues to the employees on a pro-rata basis, adjusted for inflation, during their employment period and is based on the individuals salary. As of December 31, 2000 and 2001, the Company accrued \$99,961 and \$102,109, respectively, for these defined contribution pension plans. The annual cost of these plans amounted to approximately \$15,200, \$18,000 and \$19,300 in 1999, 2000 and 2001, respectively.

Table of Contents

## STMICROELECTRONICS N.V.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 15. Long-term debt

Long-term debt, all of which is unsecured, includes debt held by the following subsidiaries

	December 31, 2000	December 31, 2001
	<u>                    </u>	<u>                    </u>
STMicroelectronics S.A. (France)		
4.90% Bank loan due 2002	21,278	6,718
4.88% Bank loan due 2002	21,278	6,718
3.88% Bank loan due 2006		134,353
4.21% Other bank loans	157,037	6,558
STMicroelectronics S.r.l. (Italy)		
5.68% Bank loan due 2002	32,928	32,061
5.35% Bank loan due 2006	27,501	21,856
1.44% Other bank loans	57,955	50,486
STMicroelectronics N.V. (Netherlands)		
1.75% Liquid Yield Option Notes (LYONs due 2008)	112,520	
2.44% Liquid Yield Option Notes (LYONs due 2009)	743,371	761,451
3.75% Convertible Bonds (due 2010)	1,486,738	1,543,004
STMicroelectronics Pte (Singapore)		
4.00% Bank loan due 2007		162,224
3.50% Other bank loans	1,124	733
STMicroelectronics (others)		
4.85% Bank loans	144,724	141,893
	<u>                    </u>	<u>                    </u>
Total long-term debt	2,806,454	2,868,055
Less current portion	105,972	96,528
	<u>                    </u>	<u>                    </u>
Long-term debt, less current portion	2,700,482	2,771,527
	<u>                    </u>	<u>                    </u>

Long-term debt is denominated in the following currencies:

	December 31, 2000	December 31, 2001
	<u>                    </u>	<u>                    </u>
U.S. dollar	2,445,569	2,410,455
Italian lira	128,398	114,155
French franc	199,593	154,347
Other	32,894	189,098
	<u>                    </u>	<u>                    </u>
<b>Total</b>	<b>2,806,454</b>	<b>2,868,055</b>
	<u>                    </u>	<u>                    </u>

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Aggregate future maturities of long-term debt outstanding are as follows:

	<b>December 31, 2001</b>
2002	96,528
2003	108,946
2004	120,919
2005	90,753
2006	84,654
Thereafter	2,366,255
<b>Total</b>	<b>2,868,055</b>

In June 1998, the Company issued \$513,852 face value of zero-coupon subordinated convertible notes (LYONs), due 2008, for net proceeds of \$421,837. In May 2001, the Company issued a notice of redemption of all outstanding Liquid Yield Option Notes (LYONs) due 2008. As a result, all of the LYONs due 2008 were converted into common shares.

In September 1999, the Company issued \$918,530 face value of zero-coupon subordinated convertible notes (LYONs), due 2009, for net proceeds of \$708,288. The notes are convertible at any time by the holders at the rate of 26.292 shares of the Company's common stock for each one thousand dollar face value of the notes. The holders may redeem their LYONs on September 22, 2004 at a price of \$885.91 per one thousand dollar face value of the LYONs. The Company may choose to pay the redemption price in cash or in common shares or a combination of the both. On or after September 22, 2002 and prior to September 22, 2004, the Company may redeem for cash all, but not a portion of the LYONs. On or after September 22, 2004, the Company may redeem all or a portion of the LYONs for cash. The notes are subordinated to all the other and existing and future indebtedness of the Company.

In November 2000, the Company issued \$2,145,923 face value of zero-coupon unsubordinated convertible bonds, due 2010, for net proceeds of \$1,457,828. The debt discount of \$665,923 is amortized straight-line over the term of the debt and recorded as interest expense. The notes are convertible at any time by the holders at the rate of 9.32 shares of the Company's common stock for each one thousand dollar face value of the notes. The holders may redeem their convertible bonds for cash on January 17, 2005, at a price of \$805.15 per one thousand dollar face value of the convertible notes. On or after November 16, 2003 and prior to November 16, 2005, the Company may redeem for cash all, but not a portion of the convertible bonds. On or after November 16, 2005, the Company may redeem for cash all or a portion of the convertible bonds. The notes are unsubordinated to all the other and existing and future indebtedness of the Company.

During 1999, \$52,476 face amount of convertible bonds was converted into 939,528 shares of common stock. During 2000, \$333,580 face amount of convertible bonds was converted into 17,908,743 shares of common stock. During 2001, \$128,340 face amount of convertible bonds was converted into 6,886,927 shares of common stock. The conversion of the convertible notes in 1999, 2000 and 2001 resulted in non-cash transactions in financing activities of \$44,412, \$283,400 and \$111,585 respectively.

*Credit facilities*

The Company has revolving line of credit agreements with several financial institutions totaling \$994,600. At December 31, 2001, amounts available under the lines of credit was reduced by borrowings of \$32,750 at an average interest rate of 2.36%.



Table of Contents

## STMICROELECTRONICS N.V.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**16. Other payables and accrued liabilities**

Other payables and accrued liabilities consist of the following:

	December 31, 2000	December 31, 2001
Taxes other than income taxes	50,228	36,153
Salaries and wages	181,516	129,857
Social charges	70,957	63,191
Advances received on fundings	10,562	18,515
Commercial rebates	32,755	11,030
Royalties payable	42,313	39,355
Other	120,834	111,441
<b>Total</b>	<b>509,165</b>	<b>409,542</b>

**17. Other revenues**

Other revenues consist of the following:

	1999	2000	2001
Co-development contract fees	30,205	41,229	47,358
Other	2,962	7,570	5,625
<b>Total</b>	<b>33,167</b>	<b>48,799</b>	<b>52,983</b>

**18. Other income and expenses**

Other income and expenses consist of the following:

	December 31, 1999	December 31, 2000	December 31, 2001
Research and development funding	60,352	42,065	57,530
Start-up costs	(24,736)	(115,137)	(89,478)
Exchange gain, net	14,653	15,767	11,360
Gain on sale of marketable securities		8,952	27,153
Other	(10,429)	(35,180)	(12,584)
<b>Total</b>	<b>39,840</b>	<b>(83,533)</b>	<b>(6,019)</b>

**19. Impairment and restructuring charges**

In the second quarter of 2001, the Company recorded an impairment charge of \$296,300. This charge included impairment losses of (i) \$176,700 associated with tangible assets at the Company's fabrication sites; (ii) \$97,300 related to purchased technologies and goodwill on previous acquisitions; and (iii) \$22,300 for financial assets with an other than temporary decline in value. This impairment charge resulted from a significant deterioration in the business climate in the semiconductor industry. Due to these

market changes, the Company revised its production forecasts and foresees an underutilization of the capacities of certain 150mm fabrication facilities. The fair value for tangible and intangible assets was determined using the discounted expected future cash flows model. Quoted market values were used in determining the fair value of financial assets.

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Additionally in the second quarter of 2001, the Company recorded restructuring charges of \$15,034 related to the closure of its facility in Ottawa, Canada. These restructuring charges related to the severance of plant personnel and were paid in 2001.

In the third quarter of 2001, the Company recorded an impairment charge of \$23,300 relating to the building and facilities of its Rancho Bernardo, California, 150mm fabrication plant by April 2002. This impairment charge was based on quoted market value and resulted from management's decision to close the plant. The production capacity related to the facility will be transferred to other 150mm fabrication plants.

In the fourth quarter of 2001, the Company recorded expenses of \$10,881 relating to severance costs and retention bonuses for plant employees during the closure of the facilities in Ottawa, Canada and Rancho Bernardo, California. Any costs of relocating personnel from the facilities and for transferring equipment to other fabrication sites will be recognized as incurred during 2002.

**20. Net interest income**

Net interest income consists of the following:

	December 31, 1999	December 31, 2000	December 31, 2001
Income	81,888	111,403	100,164
Expense	(46,264)	(64,700)	(113,204)
<b>Total</b>	<b>35,624</b>	<b>46,703</b>	<b>(13,040)</b>

Cash paid for interest was \$48,086 in 1999, \$60,862 in 2000 and \$110,918 in 2001. Capitalized interest was \$8,317 in 1999, \$1,846 in 2000 and \$8,854 in 2001.

**21. Income tax**

Income before income tax expense is comprised of the following:

	December 31, 1999	December 31, 2000	December 31, 2001
Loss recorded in The Netherlands	(17,494)	(6,393)	(32,055)
Income from foreign operations	724,616	1,835,822	353,214
<b>Income before income tax expense</b>	<b>707,122</b>	<b>1,829,429</b>	<b>321,159</b>

STMicroelectronics N.V. and its subsidiaries are individually liable for income tax. Tax losses can only offset profits generated by the taxable entity incurring such loss.

Income tax expense is comprised of the following:

	December 31, 1999	December 31, 2000	December 31, 2001
Domestic taxes current	(4,353)	(7,585)	(5,311)
Foreign taxes current	(130,904)	(342,837)	(139,065)
<b>Current taxes</b>	<b>(135,257)</b>	<b>(350,422)</b>	<b>(144,376)</b>

Edgar Filing: STMICROELECTRONICS NV - Form 20-F

Deferred taxes	(21,957)	(24,697)	83,316
Income tax expense	(157,214)	(375,119)	(61,060)

F-25

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The principal items comprising the differences in income taxes computed at The Netherlands statutory rate (35%) and the effective income tax rate are the following:

	<b>December 31, 1999</b>	<b>December 31, 2000</b>	<b>December 31, 2001</b>
Income tax expense computed at statutory rate	(247,493)	(640,300)	(112,406)
Deductions for financial reporting with no tax effect	(699)	(13,349)	(28,561)
Variation in valuation allowance	3,107	(7,185)	(1,865)
Other tax and credits	8,549	(4,770)	(5,222)
Benefits from tax holidays	49,911	225,193	80,618
Earnings of subsidiaries taxed at different rates	29,411	65,292	6,375
	<b>_____</b>	<b>_____</b>	<b>_____</b>
Income tax expense	<b>(157,214)</b>	<b>(375,119)</b>	<b>(61,061)</b>
	<b>_____</b>	<b>_____</b>	<b>_____</b>

Permanent differences reflect mainly the effects of capital allowance programs and special tax incentive programs existing in some Asia Pacific and Mediterranean countries, and of various non-deductible items. The tax holidays aim to attract foreign technological investment in certain tax jurisdictions. The effect of the tax holidays on basic earnings per share was \$0.06, \$0.25 and \$0.09 for the years ended December 31, 1999, 2000 and 2001, respectively. The Company will continue to benefit from these tax holidays over ten years.

Deferred tax assets and liabilities consist of the following:

	<b>December 31, 2000</b>	<b>December 31, 2001</b>
Tax loss carryforwards and investment credits	22,672	29,696
Inventory valuation	39,892	28,026
Impairment charges		24,161
Fixed asset depreciation in arrears	23,632	11,793
Receivables for government funding	433	7,669
Other temporary differences	42,352	53,190
	<b>_____</b>	<b>_____</b>
Total deferred tax assets	128,981	154,535
Valuation allowance	(5,066)	(1,097)
	<b>_____</b>	<b>_____</b>
Deferred tax assets, net	123,915	153,438
	<b>_____</b>	<b>_____</b>
Accelerated fixed assets depreciation	(191,632)	(123,840)
Acquired intangible assets		(10,961)
Advances of government funding	(10,755)	(6,296)
	<b>_____</b>	<b>_____</b>
Other temporary differences	(20,563)	(23,800)
	<b>_____</b>	<b>_____</b>
Deferred tax liabilities	(222,950)	(164,897)
	<b>_____</b>	<b>_____</b>
Net deferred income tax liability	(99,035)	(11,459)
	<b>_____</b>	<b>_____</b>



Table of Contents

## STMICROELECTRONICS N.V.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Deferred income taxes were classified in the consolidated balance as follows:

	December 31, 2000	December 31, 2001
Other receivables and assets	71,651	53,252
Investments and other non-current assets	15,916	18,255
Accrued and deferred income tax	(8,041)	(8,066)
Other non-current liabilities	(178,561)	(74,900)
Net deferred income tax liability	(99,035)	(11,459)

As of December 31, 2001, the Company and its subsidiaries have net operating loss carryforwards of \$87,399 which expire between 2001 and 2007.

The Company paid \$99,930 cash for income taxes in 1999, \$242,929 cash for income taxes in 2000 and \$264,122 cash for income taxes in 2001.

**22. Commitments***Lease commitments*

The Company leases land, building, plant and equipment under non-cancelable lease agreements. As of December 31, 2001 the future minimum lease payments to which the Company was committed under operating leases were as follows:

Year	
2002	28,260
2003	24,749
2004	21,954
2005	19,345
2006	18,424
Thereafter	72,186
<b>Total</b>	<b>184,918</b>

*Other commitments*

As of December 31, 2001, the Company had commitments, \$342,045 for equipment purchases, of \$214,515 for foundry wafers purchases and \$155,220 for software purchases.

**23. Contingencies**

The Company is involved in various lawsuits, claims, investigations and proceedings incidental to the normal conduct of its operations. These matters mainly include the risks associated with external patents utilization, various investigations, claims from customers and tax disputes. Management has accrued for these loss contingencies when the loss is probable and can be estimated. Management believes that these contingencies will not have a material adverse effect on the business, financial condition or results of operations of the Company.

During 2000, the Company acquired a manufacturing facility. The terms of the agreement require the Company to pay additional amounts up to \$30,000 if certain conditions are met during the second and third year after acquisition. Payment of the contingent amounts is considered reasonably possible, and therefore it has not been recorded at December 31, 2001.





**Table of Contents**

**STMICROELECTRONICS N.V.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**24. Financial Instruments and Risk Management**

Financial instruments and derivatives are used exclusively for purposes other than trading.

*Foreign exchange forward contracts and currency options*

The Company enters into foreign exchange forward contracts and currency options to manage exposure to fluctuations in foreign currency exchange rates and to cover a portion of both its probable anticipated, but not firmly committed, transactions and transactions with firm foreign currency commitments. These transactions include international sales by various subsidiaries in foreign currencies, foreign currency denominated purchases, intercompany sales and other intercompany transactions. Such contracts outstanding as of December 31, 2001 have remaining terms of one to six months, maturing on average after 98 days.

The notional amounts of foreign exchange forward contracts totaled \$780,423 and \$1,138,795 at December 31, 2000 and 2001, respectively. The principal currencies covered are the US dollar, the euro, the Japanese yen, and the Swiss franc.

The risk of loss associated with purchased options is limited to premium amounts paid for the option contracts. The risk of loss associated with forward contracts is equal to the exchange rate differential from the time the contract is entered into until the time it is settled. At December 31, 2000 and 2001, no currency options were outstanding.

*Concentration of credit risk*

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of interest-bearing investments and trade receivables. The Company places its cash and cash equivalents and certain other financial instruments with a variety of high credit quality financial institutions and has not experienced any material losses relating to such instruments. The Company invests its excess cash in accordance with its investment policy which aims to minimize credit risk.

The Company controls the credit risks associated with financial instruments through credit approvals, investment limits and centralized monitoring procedures but does not normally require collateral or other security from the parties to financial instruments. At December 31, 2000 and 2001, one customer, the Nokia group of companies, represented 13.7% and 29.4% of trade accounts receivable, respectively. Any remaining concentrations of credit risk with respect to trade receivables are limited due to the large number of customers and their dispersion across many geographic areas. The Company monitors the creditworthiness of its customers to which it grants credit terms in the normal course of business. The Company does not anticipate non-performance by counterparties which could have a significant impact on its financial position or results of operations.

*Fair value of financial instruments*

The estimates of fair value were obtained using prevailing financial market information resulting from various valuation techniques. The methodologies used to estimate fair value are as follows:

*Cash and cash equivalents, accounts and notes receivable, bank overdrafts, short-term borrowings, accounts and notes payable*

The carrying amounts reflected in the consolidated financial statements are reasonable estimates of fair value because of the relatively short period of time between the origination of the instruments and their expected realization.

*Long-term debt and current portion of long-term debt*

The fair values of long-term debt were determined based on quoted market prices, and by estimating future cash flows on a borrowing-by-borrowing basis and discounting these future cash flows using the Company's incremental borrowing rates for similar types of borrowing arrangements.

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)***Foreign exchange forward contracts*

The fair values of these instruments are estimated based upon quoted market prices for the same or similar instruments.

	2000		2001	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
<b>Balance sheet</b>				
Bank loans (including current portion)	463,825	465,922	563,600	574,404
Convertible debt	2,342,629	2,859,756	2,304,455	2,411,846
<b>Off-balance sheet</b>				
Forward exchange contracts	8,886	10,943	735	735

**25. Related party transactions**

Transactions with significant shareholders and their affiliates were as follows:

	December 31, 1999	December 31, 2000	December 31, 2001
Sales	19,033	196	818
Research and development expenses	(16,958)	(13,663)	(25,626)
Other purchases and expenses	(2,772)	(17,991)	(12,120)
Accounts receivable	6,222	774	290
Accounts payable	1,876	1,346	2,537

For the years ended December 31, 1999, 2000 and 2001, the related party transactions were primarily with two shareholders, Areva (formerly known as CEA-Industrie) and France Telecom.

**26. Segment information**

The Company operates in two segments: the Semiconductor segment and the Subsystems segment. In the Semiconductor segment, the Company designs, develops, manufactures and markets a broad range of products, including discrete, memories and standard commodity components, ASICs (full custom devices and semicustom devices) and ASSPs for analog, digital, and mixed-signal applications. In the Subsystems segment, the Company designs, develops, manufactures and markets subsystems and modules for the Telecom, Automotive and Industrial markets including mobile phone accessories, battery chargers, ISDN power supplies and in-vehicle equipment for electronic toll payment. The Subsystems segment does not meet the requirements for a reportable segment as defined in FAS 131. The accounting policies of the segments are the same as those described in the summary of significant accounting policies.

**Table of Contents****STMICROELECTRONICS N.V.****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The following is a summary of operations by entities located within the indicated geographic areas for 1999, 2000 and 2001. Long-lived assets consist of net property and equipment and other intangible assets.

*Net revenues*

	December 31, 1999	December 31, 2000	December 31, 2001
The Netherlands	670,720	1,323,613	2,016,362
France	451,243	651,116	484,165
Italy	174,087	249,588	229,462
Germany	470,554	611,115	0
Other European countries	158,159	161,041	593
USA	1,222,743	1,761,783	957,783
Singapore	1,669,129	2,277,772	1,988,933
Other countries	239,641	777,175	679,598
<b>Total</b>	<b>5,056,276</b>	<b>7,813,203</b>	<b>6,356,896</b>

*Long-lived assets*

	December 31, 1999	December 31, 2000	December 31, 2001
The Netherlands	75,759	107,642	123,014
France	1,239,540	1,889,729	1,731,916
Italy	1,117,241	1,650,506	1,687,156
Germany	1,094	1,620	3,314
Other European countries	160,443	237,717	206,553
USA	736,187	1,081,327	796,392
Singapore	245,386	649,116	749,070
Other countries	477,316	869,530	803,356
<b>Total</b>	<b>4,052,966</b>	<b>6,487,187</b>	<b>6,100,771</b>

**27. Subsequent events**

At the Company's Annual General Meeting held on March 27, 2002, shareholders approved the payment of a cash dividend of \$0.04 per share.

On April 15, 2002, the Company signed an agreement to acquire the semiconductor chip manufacturing unit, Alcatel Microelectronics, from Alcatel group of companies for euro 390 million (approximately \$351,000), subject to final adjustments and government approval. Simultaneously with this acquisition, the Company signed an agreement with AMI Semiconductors Inc. for the sale of the acquired mixed signal business activities of Alcatel Microelectronics for euro 70 million (approximately \$63 million).

**Table of Contents****STMICROELECTRONICS N.V.****VALUATION AND QUALIFYING ACCOUNTS**  
(Currency Thousands of U.S. dollars)

<b>Valuation and qualifying accounts deducted from the related asset accounts</b>	<b>Balance at beginning of period</b>	<b>Translation adjustment</b>	<b>Charged to costs and expenses</b>	<b>Deductions</b>	<b>Balance at end of period</b>
<b>2001</b>					
Inventories	73,835		77,872	(73,835)	77,872
Accounts Receivable	15,824	(650)	4,979	(758)	19,395
<b>2000</b>					
Inventories	42,137		73,835	(42,137)	73,835
Accounts Receivable	11,590	(621)	4,869	(14)	15,824
<b>1999</b>					
Inventories	53,955		42,137	(53,955)	42,137
Accounts Receivable	10,494	(452)	1,662	(114)	11,590

S-1

**Table of Contents**

**Report of the Independent Accountants on  
Financial Statement Schedule**

To the Supervisory Board of STMicroelectronics N.V. :

Our audits of the consolidated financial statements referred to in our report dated February 1, 2002, except for Note 27, as to which the date is April 15, 2002, appearing in this Annual Report on Form 20-F also included an audit of the financial statement schedule listed in Item 18 of this Form 20-F. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

PricewaterhouseCoopers N.V.  
Amsterdam, The Netherlands  
February 1, 2002

S-2