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in any of these types of disputes may have a material adverse impact on the Company's financial results and operations. The Company currently estimates that possible losses for known claims are in the range of \$30 million to \$50 million.

### *Other Contingencies*

The Company regularly evaluates claims and legal proceedings together with their related probable losses to determine whether they need to be adjusted based on the current information available to the Company. There can be no assurance that its recorded reserves will be sufficient to cover the extent of its potential liabilities. Legal costs associated with claims are expensed as incurred. In the event of litigation which is adversely determined with respect to the Company's interests, or in the event the Company needs to change its evaluation of a potential third-party claim, based on new evidence or communications, a material adverse effect could impact its operations or financial condition at the time it were to materialize. As of December 31, 2013, provisions for estimated probable losses with respect to claims and legal proceedings were not considered material.

## **23. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT**

### **23.1 Financial risk factors**

The Company is exposed to changes in financial market conditions in the normal course of business due to its operations in different foreign currencies and its ongoing investing and financing activities. The Company's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Company's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance. The Company uses derivative financial instruments to hedge certain risk exposures.

Risk management is carried out by a central treasury department (Corporate Treasury). Simultaneously, a Treasury Committee, chaired by the CFO, steers treasury activities and ensures compliance with corporate policies. Treasury activities are thus regulated by the Company's policies, which define procedures, objectives and controls. The policies focus on the management of financial risk in terms of exposure to market risk, credit risk and liquidity risk. Treasury controls are subject to internal audits. Most treasury activities are centralized, with any local treasury activities subject to oversight from head treasury office. Corporate Treasury identifies, evaluates and hedges financial risks in close cooperation with the Company's operating units. It provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, price risk, credit risk, use of derivative financial instruments, and investments of excess liquidity. The majority of cash and cash equivalents is held in U.S. dollars and Euros and is placed with financial institutions rated at least a single "A" long-term rating from two of the major rating agencies, meaning at least A3 from Moody's Investor Service and A- from Standard & Poor's and Fitch Ratings, or better. These ratings are closely and continuously monitored in order to manage exposure to the counterparty's risk. Hedging transactions are performed only to hedge exposures deriving from operating, investing and financing activities conducted in the normal course of business.

#### ***Market risk***

##### ***Foreign exchange risk***

The Company conducts its business on a global basis in various major international currencies. As a result, the Company is exposed to adverse movements in foreign currency exchange rates, primarily with respect to the Euro. Foreign exchange risk mainly arises from recognized assets and liabilities at the Company's subsidiaries and future commercial transactions.

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Management has set up a policy to require the Company's subsidiaries to hedge their entire foreign exchange risk exposure with the Company through financial instruments transacted or overseen by Corporate Treasury. To manage their foreign exchange risk arising from foreign-currency-denominated assets and liabilities, subsidiaries use forward contracts and purchased currency options. Foreign exchange risk arises when recognized assets and liabilities are denominated in a currency that is not the entity's functional currency. These instruments do not qualify as hedging instruments for accounting purposes. Forward contracts and currency options, including collars, are also used by the Company to reduce its exposure to U.S. dollar fluctuations in Euro-denominated forecasted intercompany transactions that cover a large part of its research and development, selling, general and administrative expenses as well as a portion of its front-end manufacturing costs of semi-finished goods. The Company also hedges through the use of currency forward contracts certain Singapore dollar-denominated manufacturing forecasted transactions. The derivative instruments used to hedge these forecasted transactions meet the criteria for designation as cash flow hedge. The hedged forecasted transactions have a high probability of occurring for hedge accounting purposes.

It is the Company's policy to have the foreign exchange exposures in all the currencies hedged month by month against the monthly standard rate. At each month end, the forecasted flows for the coming month are hedged together with the fixing of the new standard rate. For this reason the hedging transactions will have an exchange rate very close to the standard rate at which the forecasted flows will be recorded on the following month. As such, the foreign exchange exposure of the Company, which consists in the balance sheet positions and other contractually agreed transactions, is always equivalent to zero and any movement in the foreign exchange rates will not therefore influence the exchange effect on items of the consolidated statement of income. Any discrepancy from the forecasted values and the actual results is constantly monitored and prompt actions are taken, if needed.

### *Derivative Instruments Not Designated as a Hedge*

As described above, the Company enters into foreign currency forward contracts and currency options to reduce 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. These include receivables from international sales by various subsidiaries, payables for foreign currency-denominated purchases and certain other assets and liabilities arising from intercompany transactions.

The notional amount of these financial instruments totaled \$319 million, \$817 million and \$517 million at December 31, 2013, 2012 and 2011, respectively. The principal currencies covered are the Singapore dollar, the Swiss franc, the Indian rupee, the China Yuan Renminbi, the British pound and the Japanese yen.

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. The risk of loss associated with purchased currency options is equal to the premium paid when the option is not exercised.

Foreign currency forward contracts and currency options not designated as cash flow hedge outstanding as of December 31, 2013 have remaining terms of 6 days to 11 months, maturing on average after 40 days.

### *Derivative Instruments Designated as a Hedge*

To further reduce its exposure to U.S. dollar exchange rate fluctuations, the Company hedges through the use of currency forward contracts and currency options, including collars, certain Euro-denominated forecasted intercompany transactions that cover at year-end a large part of its research and development, selling, general and administrative expenses, as well as a portion of its front-end manufacturing costs of semi-finished goods. The Company also hedges through the use of currency forward contracts certain manufacturing transactions denominated in Singapore dollars.

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The principles regulating the hedging strategy for derivatives designated as cash flow hedge are established as follows: (i) for R&D and corporate costs, up to 80% of the total forecasted transactions; (ii) for manufacturing costs, up to 70% of the total forecasted transactions. In order to follow a dynamic hedge strategy, the Company may change the percentage of the designated hedged item within the limit of 100% of the forecasted transaction. The maximum length of time over which the Company could hedge its exposure to the variability of cash flows for forecasted transactions is 24 months.

For the year ended December 31, 2013, the Company recorded a decrease in cost of sales and operating expenses of \$16 million and \$17 million, respectively, related to the realized gain incurred on such hedged transactions. For the year ended December 31, 2012 the Company recorded an increase in cost of sales and operating expenses of \$39 million and \$32 million, respectively, related to the realized loss incurred on such hedged transactions. For the year ended December 31, 2011 the Company recorded a reduction in cost of sales and operating expenses of \$65 million and \$52 million, respectively, related to the realized gain incurred on such hedged transactions. No significant ineffective portion of the hedge was recorded on the line "Other income and expenses, net" of the consolidated statements of income for the years ended December 31, 2013, 2012 and 2011.

The notional amount of foreign currency forward contracts and currency options, including collars, designated as cash flow hedge totaled \$1,702 million, \$1,552 million and \$1,759 million at December 31, 2013, 2012 and 2011, respectively. The forecasted transactions hedged at December 31, 2013 were determined to have a high probability of occurring.

As of December 31, 2013, \$38 million of deferred gains on derivative instruments, before deferred tax of \$5 million, included in "Accumulated other comprehensive income (loss)" were expected to be reclassified as earnings during the next 12 months based on the monthly forecasted research and development expenses, corporate costs and semi-finished manufacturing costs. No amount was reclassified as "Other income and expenses, net" into the consolidated statement of income from "Accumulated other comprehensive income (loss)" in the consolidated statement of equity. As of December 31, 2012, \$29 million of deferred gains on derivative instruments, before deferred tax of \$3 million, included in "Accumulated other comprehensive income (loss)" were expected to be reclassified as earnings during the next 12 months based on the monthly forecasted research and development expenses, corporate costs and semi-finished manufacturing costs. No amount was reclassified as "Other income and expenses, net" into the consolidated statement of income from "Accumulated other comprehensive income (loss)" in the consolidated statement of equity. Foreign currency forward contracts, currency options and collars designated as cash flow hedge outstanding as of December 31, 2013 have remaining terms of 2 days to 11 months, maturing on average after 107 days.

As at December 31, 2013, the Company had the following outstanding derivative instruments that were entered into to hedge Euro-denominated and Singapore dollar-denominated forecasted transactions:

In millions of Euros	Notional amount for hedge on forecasted R&D and other operating expenses	Notional amount for hedge on forecasted manufacturing costs
Forward contracts	187	207
Currency options	49	105
Currency collars	253	348

  

In millions of Singapore dollars	Notional amount for hedge on forecasted R&D and other operating expenses	Notional amount for hedge on forecasted manufacturing costs
Forward contracts	—	149

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### Cash flow and fair value interest rate risk

The Company's interest rate risk arises from long-term borrowings. Borrowings issued at variable rates expose the Company to cash flow interest rate risk. Borrowings issued at fixed rates expose the Company to fair value interest rate risk.

The Company analyses its interest rate exposure on a dynamic basis. Various scenarios are simulated taking into consideration refinancing, renewal of existing positions, alternative financing and hedging. Since all the liquidity of the Company is invested in floating rate instruments, the Company's interest rate risk arises from the mismatch of fixed rate liabilities and floating rate liquid assets.

### Price risk

As part of its ongoing investing activities, the Company may be exposed to equity security price risk for investments in public entities. In order to hedge the exposure to this market risk, the Company may enter into certain derivative hedging transactions.

Information on fair value of derivative instruments and their location in the consolidated balance sheets as at December 31, 2013 and December 31, 2012 is presented in the table below:

In millions of U.S. dollars		As at December 31, 2013		As at December 31, 2012	
Asset Derivatives	Balance sheet location	Fair value	Balance sheet location	Fair value	
Derivatives designated as a hedge:					
Foreign exchange forward contracts	Other current assets	26	Other current assets	21	
Currency collars	Other current assets	10	Other current assets	8	
Currency options	Other current assets	5	Other current assets	—	
Total derivatives designated as a hedge		41		29	
Derivatives not designated as a hedge:					
Foreign exchange forward contracts	Other current assets	2	Other current assets	7	
Total derivatives not designated as a hedge:		2		7	
Total Derivatives		43		36	

In millions of U.S. dollars		As at December 31, 2013		As at December 31, 2012	
Liability Derivatives	Balance sheet location	Fair value	Balance sheet location	Fair value	
Derivatives designated as a hedge:					
Foreign exchange forward contracts	Other payables and accrued liabilities	(1)	Other payables and accrued liabilities	—	
Currency collars	Other payables and accrued liabilities	(2)			
Total derivatives designated as a hedge		(3)		—	
Derivatives not designated as a hedge:					
Foreign exchange forward contracts	Other payables and accrued liabilities	(1)	Other payables and accrued liabilities	(1)	
Total derivatives not designated as a hedge:		(1)		(1)	
Total Derivatives		(4)		(1)	

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The effect on the consolidated statements of income for the year ended December 31, 2013 and December 31, 2012 and on the "Accumulated other comprehensive income (loss)" ("AOCI") as reported in the statements of equity as at December 31, 2013 and December 31, 2012 of derivative instruments designated as cash flow hedge is presented in the table below:

In millions of U.S. dollars	Gain (loss) deferred in OCI on derivative		Location of gain (loss) reclassified from OCI into earnings	Gain (loss) reclassified from OCI into earnings	
	December 31, 2013	December 31, 2012		December 31, 2013	December 31, 2012
Foreign exchange forward contracts	14	11	Cost of sales	13	(25)
Foreign exchange forward contracts	2	1	Selling, general and administrative	2	(2)
Foreign exchange forward contracts	10	9	Research and development	13	(18)
Currency options	1	—	Cost of sales	—	(1)
Currency options	1	—	Research and development	—	(1)
Currency collars	6	5	Cost of sales	3	(13)
Currency collars	1	1	Selling, general and administrative	1	(3)
Currency collars	3	2	Research and development	1	(8)
<b>Total</b>	<b>38</b>	<b>29</b>		<b>33</b>	<b>(71)</b>

No significant ineffective portion of the cash flow hedge relationships was recorded in earnings for the years ended December 31, 2013 and December 31, 2012. No amount was excluded from effectiveness measurement on foreign exchange forward contracts, currency options and collars.

The effect on the consolidated statements of income for the year ended December 31, 2013 and December 31, 2012 of derivative instruments not designated as a hedge is presented in the table below:

In millions of U.S. dollars	Location of gain recognized in earnings	Gain recognized in earnings	
		December 31, 2013	December 31, 2012
Foreign exchange forward contracts	Other income and expenses, net	10	20
<b>Total</b>		<b>10</b>	<b>20</b>

The Company did not enter into any derivative containing significant credit-risk-related contingent features.

The Company entered into currency collars as combinations of two options, which are reported, for accounting purposes, on a net basis. The fair value of these collars represented as at December 31, 2013 assets totaling \$10 million (a gross amount of recognized assets of \$11 million offset with a liability of \$1 million) and liabilities totaling \$2 million (a gross amount of recognized liabilities of \$2 million net of assets with a nil value). In addition, the Company entered into other derivative instruments, primarily forward contracts, which are governed by standard International Swaps and Derivatives Association ("ISDA") agreements, which are not offset in the statement of financial position, and representing total assets of \$33 million and liabilities of \$2 million as at December 31, 2013.

### Credit risk

The Company selects banks and/or financial institutions that operate with the group based on the criteria of long-term rating from at least two major Rating Agencies and keeping a maximum outstanding amount per instrument with each bank not to exceed 20% of the total. This percentage is reviewed and is always kept at a maximum of 15% for major counterparty banks with high capitalization. Due to the concentration of part of its operations in

Europe, primarily in France and in Italy, the Company assessed in 2013, 2012 and 2011 the level of direct and indirect exposures in the Euro zone. The analysis focused on cash and cash equivalents, loans and receivables, deferred tax assets and other financial assets held in European countries experiencing economic, fiscal or political strains that increase the likelihood of default. To identify the countries at risk, the Company considered recent economic developments, such as credit downgrades, widening credit spreads and public deficit reduction plans and the impact such developments could have on the Company's financial position, results of operations, liquidity, and capital resources. The assessment also aimed at identifying indirect exposures to the current economic environment in the Euro zone, such as concentrations of cash and financial instruments with financial institutions highly exposed to the sovereign debt crisis. The Company concluded that the situation in the Euro zone was in evolution but that no factors indicated a high level of credit risk exposure due to a sovereign default in the short term.

The Company monitors the creditworthiness of its customers to which it grants credit terms in the normal course of business. If certain customers are independently rated, these ratings are used. Otherwise, if there is no independent rating, risk control assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. Individual risk limits are set based on internal and external ratings in accordance with limits set by management. The utilization of credit limits is regularly monitored. Sales to customers are primarily settled in cash. At December 31, 2013 and 2012, no customer represented more than 10% of trade accounts receivable, net. 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.

#### *Liquidity risk*

Prudent liquidity risk management includes maintaining sufficient cash and cash equivalents, short-term deposits and marketable securities, the availability of funding from committed credit facilities and the ability to close out market positions. The Company's objective is to maintain a significant cash position and a low debt-to-equity ratio, which ensure adequate financial flexibility. Liquidity management policy is to finance the Company's investments with net cash provided from operating activities.

Management monitors rolling forecasts of the Company's liquidity reserve on the basis of expected cash flows.

### **23.2 Capital risk management**

The Company's objectives when managing capital are to safeguard the Company's ability to continue as a going concern in order to create value for shareholders and benefits and returns for other stakeholders, as to maintain an optimal capital structure. In order to maintain or adjust the capital structure, the Company may review the amount of dividends paid to shareholders, return capital to shareholders, or issue new shares.

Consistent with others in the industry, the Company monitors capital on the basis of the net debt-to-equity ratio. This ratio is calculated as the net financial position of the Company, defined as the difference between total cash position (cash and cash equivalents, marketable securities - current and non-current-, short-term deposits and current restricted cash, if any) net of total financial debt (bank overdrafts, if any, short-term borrowings and current portion of long-term debt as well as long-term debt), divided by total parent company stockholders'equity.

### **23.3 Fair value measurement**

The fair value of financial instruments traded in active markets is based on quoted market prices at the balance sheet date. The quoted market price used for financial assets held by the Company is the bid price. If the market for a financial asset is not active and if no observable market price is obtainable, the Company measures fair value by using significant assumptions and estimates. When measuring fair value, the Company makes maximum use of market inputs and minimizes the use of unobservable inputs.

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The table below details financial assets (liabilities) measured at fair value on a recurring basis as at December 31, 2013:

Description	December 31, 2013	Quoted Prices in Active Markets for Identical Assets (Level 1)	Fair Value Measurements using Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
In millions of U.S. dollars				
Euro-denominated Senior debt Floating Rate Notes issued by financial institutions	27	27	—	—
U.S.-denominated Senior debt Floating Rate Notes issued by financial institutions	30	30	—	—
Equity securities classified as available- for-sale	11	11	—	—
Equity securities classified as held-for- trading	8	8	—	—
Derivative instruments designated as cash flow hedge	38	—	38	—
Derivative instruments not designated as a hedge	1	—	1	—
<b>Total</b>	<b>115</b>	<b>76</b>	<b>39</b>	<b>—</b>

The table below details financial assets (liabilities) measured at fair value on a recurring basis as at December 31, 2012:

Description	December 31, 2012	Quoted Prices in Active Markets for Identical Assets (Level 1)	Fair Value Measurements using Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
In millions of U.S. dollars				
Debt securities issued by the U.S. Treasury	150	150	—	—
Euro-denominated Senior debt Floating Rate Notes issued by financial institutions	59	59	—	—
U.S.-denominated Senior debt Floating Rate Notes issued by financial institutions	29	29	—	—
Equity securities classified as available- for-sale	10	10	—	—
Equity securities classified as held-for- trading	8	8	—	—
Derivative instruments designated as cash flow hedge	29	—	29	—
Derivative instruments not designated as a hedge	6	—	6	—
<b>Total</b>	<b>291</b>	<b>256</b>	<b>35</b>	<b>—</b>

No asset was measured at fair value on a recurring basis using significant unobservable inputs (Level 3) as at December 31, 2013 and December 31, 2012.

The table below details assets (liabilities) measured at fair value on a non-recurring basis as at December 31, 2013:

Description	December 31, 2013	Quoted Prices in Active Markets for Identical Assets (Level 1)	Fair value measurements using Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
In millions of U.S. dollars				
Assets held for sale	16	—	—	16
<b>Total</b>				

The assets held for sale are reported at the lower of net book value and fair value less costs to sell. For fair value measurements using significant unobservable inputs (Level 3), fair value is estimated based on the estimated

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price that a market participant would pay for equity investments or the indexation of historical costs (indirect cost approach) for property, plant and equipment. The latter approach relies on the principle of substitution according to which a market participant would not pay more for an asset than the cost to replace it with an identical or similar new unit of equivalent utility. Under this approach, the fair value of the asset is determined by adjusting the asset's replacement costs for losses in value attributable to physical, functional and economic obsolescence. For certain tangible assets classified as assets held for sale, replacement costs were deduced by trending historical purchasing and manufacturing costs less soft costs. The price index multipliers applied for indexing replacement costs were estimated based on the historical development of producer price indices.

For assets (liabilities) measured at fair value on a non-recurring basis using significant unobservable inputs (Level 3), the reconciliation between January 1, 2013 and December 31, 2013 is presented as follows:

In millions of U.S. dollars	Fair Value Measurements using Significant Unobservable Inputs (Level 3)
January 1, 2013	—
Assets held for sale	11
Sale of assets	(5)
Deconsolidation of assets	(6)
Veredus asset group	16
December 31, 2013	16
Amount of total losses for the period included in earnings attributable to assets still held at the reporting date	(5)

No significant portion of the aggregate carrying amount of cost-method investments was evaluated for impairment in 2013 and in 2012, since there were no identified events or changes in circumstances that may have had a significant adverse effect on the fair value of the related investments.

As described in Notes 7 and 8, the Company recorded a total impairment charge of \$56 million on goodwill and intangible assets associated with the DCG reporting unit. The measurement of goodwill and intangible assets upon impairment testing is classified as a Level 3 fair value measurement due to the significance of unobservable inputs developed using entity-specific information. The Company used the income approach to measure the fair value of the reporting unit. Under the income approach, the fair value was determined based on the present value of the estimated future cash flows associated with the reporting unit. Cash flow projections were based on a plan for the DCG reporting unit that included best estimates about future developments and scenarios of the DCG business. The discount rate used was based on the weighted-average cost of capital adjusted for the relevant risk associated with the business-specific characteristics and the uncertainty related to the business's cash flows.

Prior to conducting the impairment test on goodwill, the Company evaluated the recoverability of the long-lived assets assigned to the DCG reporting unit. The impairment on intangible assets totaled \$18 million and was composed of \$17 million on acquired technologies and \$1 million on capitalized software. The Company used the income approach, which was based on cash flow projections expected to result from their use or potential sale. The discount rate used was based on the weighted-average cost of capital adjusted for the relevant risk associated with the assets.



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The following table includes additional fair value information on financial assets and liabilities as at December 31, 2013 and 2012:

Description In millions of U.S. dollars	Level	Carrying Amount	2013	Carrying Amount	2012
			Estimated Fair Value		Estimated Fair Value
<b>Cash and cash equivalents</b>	<b>1</b>	<b>1,836</b>	<b>1,836</b>	2,250	2,250
<b>Long-term debt</b>		<b>1,153</b>	<b>1,153</b>	1,301	1,301
- Bank loans (including current portion)	<b>2</b>	<b>1,153</b>	<b>1,153</b>	839	839
- Senior Bonds	<b>2</b>	<b>-</b>	<b>-</b>	462	462

No securities were in an unrealized loss position as at December 31, 2013.

The table below details securities that were in an unrealized loss position as at December 31, 2012. The securities are segregated by investment type and the length of time that the individual securities have been in a continuous unrealized loss position as of December 31, 2012.

Description	December 31, 2012					
	Less than 12 months		More than 12 months		Total	
	Fair Values	Unrealized Losses	Fair Values	Unrealized Losses	Fair Values	Unrealized Losses
Senior debt floating rate notes	-	-	88	(1)	88	(1)
Total	-	-	88	(1)	88	(1)

The methodologies used to estimate fair value are as follows:

### Debt securities classified as available-for-sale

The fair value of these debt securities is estimated based upon quoted market prices for identical instruments.

### Foreign exchange forward contracts, currency options and collars

The fair value of these instruments is estimated based upon quoted market prices for similar instruments.

### Equity securities classified as available-for-sale

The fair values of these instruments are estimated based upon market prices for the same or similar instruments.

### Trading equity securities

The fair value of these instruments is estimated based upon quoted market prices for the same instruments.

### Equity securities carried at cost

The non-recurring fair value measurement is based on the valuation of the underlying investments on a new round of third party financing or upon liquidation.

### Long-term debt and current portion of long-term debt

The fair value of long-term debt was 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.

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### **Cash and cash equivalents, accounts receivable, bank overdrafts, short-term borrowings, and accounts payable**

The carrying amounts reflected in the consolidated financial statements are reasonable estimates of fair value due to the relatively short period of time between the origination of the instruments and their expected realization.

### **24. RELATED PARTY TRANSACTIONS**

Transactions with significant shareholders, their affiliates and other related parties were as follows:

	December 31, 2013	December 31, 2012	December 31, 2011
Sales & other services	118	226	269
Research and development expenses	(121)	(282)	(235)
Other purchases	(71)	(53)	(60)
Accounts receivable	12	53	54
Accounts payable	82	62	42

For the years ended December 31, 2013, December 31, 2012 and 2011, the related party transactions were primarily with significant shareholders of the Company, or their subsidiaries and companies in which management of the Company perform similar policymaking functions. These include, but are not limited to: BESi, Cassa Depositi e Prestiti, Flextronics, MicroOLED, Soitec, Oracle and Technicolor. The related party transactions presented in the table above also include transactions between the Company and its equity-method investments as listed in Note 10.

Until the sale of its JVD shares to Ericsson on August 2, 2013, leading to the de-recognition of its equity investment in JVD, the Company purchased R&D services from JVD (\$121 million in 2013). For the year ended December 31, 2012, the total R&D services purchased from ST-Ericsson AT SA amounted to \$224 million and outstanding trade payables amounted to \$44 million.

The Company made a contribution of \$0.5 million for the year ended December 31, 2013 to the ST Foundation, a non-profit organization established to deliver and coordinate independent programs in line with its mission. The Company made no contribution to ST Foundation in the year ended December 31, 2012. Certain members of the Foundation's Board are senior members of the Company's management.

### **25. SEGMENT INFORMATION**

The Company operates in two business areas: Semiconductors and Subsystems.

In the Semiconductors business area, the Company designs, develops, manufactures and markets a broad range of products, including discrete and standard commodity components, application-specific integrated circuits ("ASICs"), full custom devices and semi-custom devices and application-specific standard products ("ASSPs") for analog, digital, and mixed-signal applications. In addition, the Company further participates in the manufacturing value chain of Smartcard products, which includes the production and sale of both silicon chips and Smartcards.

In the Subsystems business area, the Company designs, develops, manufactures and markets subsystems and modules for the telecommunications, automotive and industrial markets including mobile phone accessories, battery chargers, ISDN power supplies and in-vehicle equipment for electronic toll payment. Based on its immateriality to its business as a whole, the Subsystems business area does not meet the requirements for a reportable segment as defined in the U.S. GAAP guidance. All the financial values related to Subsystems including net revenues and related costs, are reported in the segment "Others".

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Effective January 1, 2013, the segment reporting reflects the Company's strategy announced on December 10, 2012. The strategy takes into account the evolution of the markets the Company is in and the environment seen in the years to come and is based on the Company's leadership in two product segments, supported by a Sales & Marketing organization with a particular focus on the major accounts, as well as expanding the Company's penetration of the mass market and focusing on five growth drivers: Automotive Products, Application Processors, including Digital Consumer Products, MEMS and Sensors, Microcontrollers and Smart Power.

The organization existing in 2013 was as follows:

- Sense & Power and Automotive Products (SP&A), including:
  - Automotive (APG),
  - Industrial & Power Discrete (IPD),
  - Analog & MEMS (AMS), and
  - Other SP&A;
- Embedded Processing Solutions (EPS), comprised of:
  - Digital Convergence Group (DCG),
  - Imaging, BI-CMOS ASIC and Silicon Photonics (IBP),
  - Microcontrollers, Memory & Security (MMS),
  - Wireless (WPS), and
  - Other EPS.

In 2013, the Company revised its results from prior periods in accordance with the new segment structure. The preparation of segment information based on the current segment structure requires management to make estimates and assumptions in determining the operating income (loss) of the segments for the prior reporting periods. The Company believes that the revised 2012 and 2011 presentation is consistent with that of 2013 and is using these comparatives when managing its segments.

The following tables present the Company's consolidated net revenues and consolidated operating income (loss) by product segment. For the computation of the segments' internal financial measurements, the Company uses certain internal rules of allocation for the costs not directly chargeable to the segments, including cost of sales, selling, general and administrative expenses and a significant part of research and development expenses. In compliance with the Company's internal policies, certain cost items are not charged to the segments, including impairment, restructuring charges and other related closure costs, including ST-Ericsson plans, unused capacity charges, phase-out and start-up costs of certain manufacturing facilities, certain one-time corporate items such as the 2012 NXP arbitration award charge, strategic and special research and development programs or other corporate-sponsored initiatives, including certain corporate-level operating expenses and certain other miscellaneous charges. In addition, depreciation and amortization expense is part of the manufacturing costs allocated to the product segments and is neither identified as part of the inventory variation nor as part of the unused capacity charges; therefore, it cannot be isolated in the costs of goods sold.

Net revenues by product segment:

In millions of U.S. dollars	December 31, 2013	December 31, 2012	December 31, 2011
Sense & Power and Automotive Products (SP&A)	4,775	4,622	5,120
Embedded Processing Solutions (EPS)	3,269	3,826	4,566
Others <sup>(1)</sup>	38	45	49
<b>Total consolidated net revenues</b>	<b>8,082</b>	<b>8,493</b>	<b>9,735</b>

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(1) Includes revenues from sales of Subsystems, sales of materials and other products not allocated to product segments.

Net revenues by product segment and by product line :

In millions of U.S. dollars	December 31, 2013	December 31, 2012	December 31, 2011
Automotive (APG)	1,668	1,554	1,678
Industrial & Power Discrete (IPD)	1,801	1,747	2,104
Analog & MEMS (AMS)	1,306	1,320	1,335
Other SP&A	—	1	3
<b>Sense &amp; Power and Automotive Products (SP&amp;A)</b>	<b>4,775</b>	<b>4,622</b>	<b>5,120</b>
Digital Convergence Group (DCG)	735	888	1,084
Imaging, Bi-CMOS ASIC and Silicon Photonics (IBP)	462	437	722
Microcontrollers, Memory & Security (MMS)	1,367	1,147	1,175
Wireless (WPS)	704	1,345	1,552
Other EPS	1	9	33
<b>Embedded Processing Solutions (EPS)</b>	<b>3,269</b>	<b>3,826</b>	<b>4,566</b>
<b>Others</b>	<b>38</b>	<b>45</b>	<b>49</b>
<b>Total consolidated net revenues</b>	<b>8,082</b>	<b>8,493</b>	<b>9,735</b>

Operating income (loss) by product segment:

In millions of U.S. dollars	December 31, 2013	December 31, 2012	December 31, 2011
Sense & Power and Automotive Products (SP&A)	270	409	757
Embedded Processing Solutions (EPS)	(399)	(883)	(489)
<b>Total operating income (loss) of product segments</b>	<b>(129)</b>	<b>(474)</b>	<b>268</b>
Others <sup>(1)</sup>	(336)	(1,607)	(222)
<b>Total consolidated operating income (loss)</b>	<b>(465)</b>	<b>(2,081)</b>	<b>46</b>

(1) Operating loss of "Others" includes items such as impairment, restructuring charges and other related closure costs including ST-Ericsson plans, unused capacity charges, phase-out and start-up costs of certain manufacturing facilities, certain one-time corporate items such as the 2012 NXP arbitration award charge and other unallocated expenses such as: strategic or special research and development programs, certain corporate-level operating expenses and other costs that are not allocated to the product segments, as well as operating earnings of the Subsystems and Other Products Group.

Reconciliation of operating income (loss) of segments to the total operating income (loss):

In millions of U.S. dollars	December 31, 2013	December 31, 2012	December 31, 2011
Total operating income (loss) of product segments	(129)	(474)	268
Strategic and other research and development programs	(15)	(12)	(13)
Phase-out and start-up costs	(5)	—	(8)
Impairment, restructuring charges and other related closure costs	(292)	(1,376)	(75)
Unused capacity charges	(32)	(172)	(149)
NXP arbitration award	—	(54)	—
Other non-allocated provisions <sup>(1)</sup>	8	7	23
<b>Total operating loss Others</b>	<b>(336)</b>	<b>(1,607)</b>	<b>(222)</b>
<b>Total consolidated operating income (loss)</b>	<b>(465)</b>	<b>(2,081)</b>	<b>46</b>

(1) Includes unallocated income and expenses such as certain corporate-level operating expenses and other costs/income that are not allocated to the product segments.

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The following is a summary of operations by entities located within the indicated geographic areas for 2013, 2012 and 2011. Net revenues represent sales to third parties from the country in which each entity is located. Long-lived assets consist of property, plant and equipment, net (PP&E, net). A significant portion of property, plant and equipment expenditures is attributable to front-end and back-end facilities, located in the different countries in which the Company operates. As such, the Company mainly allocates capital spending resources according to geographic areas rather than along product segment areas.

### Net revenues

In millions of U.S. dollars	December 31, 2013	December 31, 2012	December 31, 2011
The Netherlands	1,860	1,524	1,928
France	289	189	172
Italy	78	131	157
USA	1,041	1,014	1,120
Singapore	3,860	3,784	4,945
Japan	420	418	497
Other countries	534	1,433	916
<b>Total</b>	<b>8,082</b>	<b>8,493</b>	<b>9,735</b>

### Property, plant and equipment

In millions of U.S. dollars	December 31, 2013	December 31, 2012
The Netherlands	333	241
France	1,063	1,222
Italy	690	716
Other European countries	131	169
USA	17	18
Singapore	341	441
Malaysia	195	238
Other countries	386	436
<b>Total</b>	<b>3,156</b>	<b>3,481</b>

**STMICROELECTRONICS N.V.**  
**VALUATION AND QUALIFYING ACCOUNTS**

Valuation and qualifying accounts deducted from the related asset accounts	Balance at beginning of period	Translation adjustment	Charged to costs and expenses	Additions/ (Deductions)	Balance at end of period
(Currency – millions of U.S. dollars)					
<b>2013</b>					
Inventories	49		58	(69)	38
Accounts Receivable	10	0	2	(3)	9
Deferred Tax Assets	1,634	7	67	(254)	1,454
<b>2012</b>					
Inventories	60		95	(106)	49
Accounts Receivable	15		1	(6)	10
Deferred Tax Assets	1,514	6	123	(9)	1,634
<b>2011</b>					
Inventories	50		103	(93)	60
Accounts Receivable	17		1	(3)	15
Deferred Tax Assets	1,396	(11)	138	(9)	1,514
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