

NOKIA CORP  
Form 20-F  
March 08, 2012  
Table of Contents

As filed with the Securities and Exchange Commission on March 8, 2012.

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 20-F**

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

**For the fiscal year ended December 31, 2011**

**Commission file number 1-13202**

**Nokia Corporation**

(Exact name of Registrant as specified in its charter)

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Republic of Finland

(Jurisdiction of incorporation)

Keilalahdentie 4, P.O. Box 226, FI-00045 NOKIA GROUP, Espoo, Finland

(Address of principal executive offices)

Riikka Tieaho, Director, Corporate Legal, Telephone: +358 (0)7 1800-8000, Facsimile: +358 (0) 7 1803-8503 Keilalahdentie 4, P.O. Box 226, FI-00045 NOKIA GROUP, Espoo, Finland

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934 (the Exchange Act):

Title of each class	Name of each exchange on which registered
American Depositary Shares	New York Stock Exchange New York Stock Exchange <sup>(1)</sup>

<sup>(1)</sup> Not for trading, but only in connection with the registration of American Depositary Shares representing these shares, pursuant to the requirements of the Securities and Exchange Commission.

Securities registered pursuant to Section 12(g) of the Exchange Act: **None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Exchange Act: **5.375% Notes due 2019 and 6.625% Notes due 2039**

Indicate the number of outstanding shares of each of the registrant's classes of capital or common stock as of the close of the period covered by the annual report. Shares: **3 744 956 052**.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. Yes  No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act 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 whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing: U.S.GAAP

International Financial Reporting Standards as issued by the International Accounting Standards Board  Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17  Item 18

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If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

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

	<b>Page</b>
<u>INTRODUCTION AND USE OF CERTAIN TERMS</u>	4
<u>FORWARD-LOOKING STATEMENTS</u>	5
<u>PART I</u>	8
ITEM 1. <u>IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS</u>	8
ITEM 2. <u>OFFER STATISTICS AND EXPECTED TIMETABLE</u>	8
ITEM 3. <u>KEY INFORMATION</u>	8
3A. <u>Selected Financial Data</u>	8
3B. <u>Capitalization and Indebtedness</u>	12
3C. <u>Reasons for the Offer and Use of Proceeds</u>	12
3D. <u>Risk Factors</u>	13
ITEM 4. <u>INFORMATION ON THE COMPANY</u>	47
4A. <u>History and Development of the Company</u>	47
4B. <u>Business Overview</u>	50
4C. <u>Organizational Structure</u>	85
4D. <u>Property, Plants and Equipment</u>	85
ITEM 4A. <u>UNRESOLVED STAFF COMMENTS</u>	86
ITEM 5. <u>OPERATING AND FINANCIAL REVIEW AND PROSPECTS</u>	87
5A. <u>Operating Results</u>	87
5B. <u>Liquidity and Capital Resources</u>	136
5C. <u>Research and Development, Patents and Licenses</u>	140
5D. <u>Trends Information</u>	141
5E. <u>Off-Balance Sheet Arrangements</u>	141
5F. <u>Tabular Disclosure of Contractual Obligations</u>	141
ITEM 6. <u>DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES</u>	142
6A. <u>Directors and Senior Management</u>	142
6B. <u>Compensation</u>	152
6C. <u>Board Practices</u>	168
6D. <u>Employees</u>	173
6E. <u>Share Ownership</u>	174
ITEM 7. <u>MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS</u>	184
7A. <u>Major Shareholders</u>	184
7B. <u>Related Party Transactions</u>	184
7C. <u>Interests of Experts and Counsel</u>	185
ITEM 8. <u>FINANCIAL INFORMATION</u>	185
8A. <u>Consolidated Statements and Other Financial Information</u>	185
8B. <u>Significant Changes</u>	190
ITEM 9. <u>THE OFFER AND LISTING</u>	190
9A. <u>Offer and Listing Details</u>	190
9B. <u>Plan of Distribution</u>	191
9C. <u>Markets</u>	191
9D. <u>Selling Shareholders</u>	191
9E. <u>Dilution</u>	191
9F. <u>Expenses of the Issue</u>	192

**Table of Contents**

	<b>Page</b>
ITEM 10.	<u>ADDITIONAL INFORMATION</u>
10A.	<u>Share capital</u>
10B.	<u>Memorandum and Articles of Association</u>
10C.	<u>Material Contracts</u>
10D.	<u>Exchange Controls</u>
10E.	<u>Taxation</u>
10F.	<u>Dividends and Paying Agents</u>
10G.	<u>Statement by Experts</u>
10H.	<u>Documents on Display</u>
10I.	<u>Subsidiary Information</u>
ITEM 11.	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>
ITEM 12.	<u>DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES</u>
12D.	<u>American Depositary Shares</u>
	<u>PART II</u>
ITEM 13.	<u>DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES</u>
ITEM 14.	<u>MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS</u>
ITEM 15.	<u>CONTROLS AND PROCEDURES</u>
ITEM 16A.	<u>AUDIT COMMITTEE FINANCIAL EXPERT</u>
ITEM 16B.	<u>CODE OF ETHICS</u>
ITEM 16C.	<u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>
ITEM 16D.	<u>EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES</u>
ITEM 16E.	<u>PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS</u>
ITEM 16F.	<u>CHANGE IN REGISTRANT S CERTIFYING ACCOUNTANT</u>
ITEM 16G.	<u>CORPORATE GOVERNANCE</u>
ITEM 16H.	<u>MINE SAFETY DISCLOSURE</u>
	<u>PART III</u>
ITEM 17.	<u>FINANCIAL STATEMENTS</u>
ITEM 18.	<u>FINANCIAL STATEMENTS</u>
ITEM 19.	<u>EXHIBITS</u>
	<u>GLOSSARY OF TERMS</u>

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**Table of Contents**

**INTRODUCTION AND USE OF CERTAIN TERMS**

Nokia Corporation is a public limited liability company incorporated under the laws of the Republic of Finland. In this document, any reference to we, us, the Group or Nokia means Nokia Corporation and its subsidiaries on a consolidated basis, except where we make clear that the term means Nokia Corporation or a particular subsidiary or business segment only, and except that references to our shares, matters relating to our shares or matters of corporate governance refer to the shares and corporate governance of Nokia Corporation. Nokia Corporation has published its consolidated financial statements in euro for periods beginning on or after January 1, 1999. In this annual report on Form 20-F, references to EUR, euro or are to the common currency of the European Economic and Monetary Union, or EMU, and references to dollars, US dollars, or \$ are to the currency of the United States. Solely for the convenience of the reader, this annual report contains conversions of selected euro amounts into US dollars at specified rates, or, if not so specified, at the rate of 1.2973 US dollars per euro, which was the noon buying rate in New York City for cable transfers in euro as certified for customs purposes by the Federal Reserve Bank of New York on December 30, 2011. No representation is made that the amounts have been, could have been or could be converted into US dollars at the rates indicated or at any other rates.

Our principal executive office is located at Keilalahdentie 4, P.O. Box 226, FI-00045 Nokia Group, Espoo, Finland and our telephone number is +358 (0) 7 1800-8000.

Nokia Corporation furnishes Citibank, N.A., as Depositary, with consolidated financial statements and a related audit opinion of our independent auditors annually. These financial statements are prepared on the basis of International Financial Reporting Standards as issued by the International Accounting Standards Board and in conformity with International Financial Reporting Standards as adopted by the European Union ( IFRS ). In accordance with the rules and regulations of the US Securities and Exchange Commission, or SEC, we do not provide a reconciliation of net income and shareholders equity in our consolidated financial statements to accounting principles generally accepted in the United States, or US GAAP. We also furnish the Depositary with quarterly reports containing unaudited financial information prepared on the basis of IFRS, as well as all notices of shareholders meetings and other reports and communications that are made available generally to our shareholders. The Depositary makes these notices, reports and communications available for inspection by record holders of American Depositary Receipts, or ADRs, evidencing American Depositary Shares, or ADSs (one ADS represents one share), and distributes to all record holders of ADRs notices of shareholders meetings received by the Depositary.

In addition to the materials delivered to holders of ADRs by the Depositary, holders can access our consolidated financial statements, and other information included in our annual reports and proxy materials, at [www.nokia.com](http://www.nokia.com). This annual report on Form 20-F is also available at [www.nokia.com](http://www.nokia.com) as well as on Citibank s website at <http://citibank.ar.wilink.com> (enter Nokia in the Company Name Search). Holders may also request a hard copy of this annual report by calling the toll-free number 1-877-NOKIA-ADR (1-877-665-4223), or by directing a written request to Citibank, N.A., Shareholder Services, PO Box 43124, Providence, RI 02940-5140, or by calling Nokia Investor Relations at +1 914 282 0145. With each annual distribution of our proxy materials, we offer our record holders of ADRs the option of receiving all of these documents electronically in the future.

**Table of Contents**

**FORWARD-LOOKING STATEMENTS**

It should be noted that certain statements herein that are not historical facts are forward-looking statements, including, without limitation, those regarding:

the expected plans and benefits of our partnership with Microsoft to bring together complementary assets and expertise to form a global mobile ecosystem for smartphones;

the timing and expected benefits of our new strategies, including expected operational and financial benefits and targets as well as changes in leadership and operational structure;

the timing of the deliveries of our products and services;

our ability to innovate, develop, execute and commercialize new technologies, products and services;

expectations regarding market developments and structural changes;

expectations and targets regarding our industry volumes, market share, prices, net sales and margins of our products and services;

expectations and targets regarding our operational priorities and results of operations;

expectations and targets regarding collaboration and partnering arrangements;

the outcome of pending and threatened litigation;

expectations regarding the successful completion of acquisitions or restructurings on a timely basis and our ability to achieve the financial and operational targets set in connection with any such acquisition or restructuring; and

statements preceded by believe, expect, anticipate, foresee, target, estimate, designed, aim, plans, will or similar words. These statements are based on management's best assumptions and beliefs in light of the information currently available to it. Because they involve risks and uncertainties, actual results may differ materially from the results that we currently expect. Factors that could cause these differences include, but are not limited to:

1. our success in the smartphone market, including our ability to introduce and bring to market quantities of attractive, competitively priced Nokia products with Windows Phone that are positively differentiated from our competitors' products, both outside and within the Windows Phone ecosystem;

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2. our ability to make Nokia products with Windows Phone a competitive choice for consumers, and together with Microsoft, our success in encouraging and supporting a competitive and profitable global ecosystem for Windows Phone smartphones that achieves sufficient scale, value and attractiveness to all market participants;
3. the difficulties we experience in having a competitive offering of Symbian devices and maintaining the economic viability of the Symbian smartphone platform during the transition to Windows Phone as our primary smartphone platform;
4. our ability to realize a return on our investment in next generation devices, platforms and user experiences;
5. our ability to produce attractive and competitive feature phones, including devices with more smartphone-like features, in a timely and cost efficient manner with differentiated hardware, software, localized services and applications;



**Table of Contents**

6. the intensity of competition in the various markets where we do business and our ability to maintain or improve our market position or respond successfully to changes in the competitive environment;
7. our ability to retain, motivate, develop and recruit appropriately skilled employees;
8. our ability to effectively and smoothly implement the new operational structure for our businesses, achieve targeted efficiencies and reductions in operating expenses;
9. the success of our Location & Commerce strategy, including our ability to maintain current sources of revenue, provide support for our Devices & Services business and create new sources of revenue from our location-based services and commerce assets;
10. our success in collaboration and partnering arrangements with third parties, including Microsoft;
11. our ability to increase our speed of innovation, product development and execution to bring new innovative and competitive mobile products and location-based or other services to the market in a timely manner;
12. our dependence on the development of the mobile and communications industry, including location-based and other services industries, in numerous diverse markets, as well as on general economic conditions globally and regionally;
13. our ability to protect numerous patented standardized or proprietary technologies from third-party infringement or actions to invalidate the intellectual property rights of these technologies;
14. our ability to maintain and leverage our traditional strengths in the mobile product market if we are unable to retain the loyalty of our mobile operator and distributor customers and consumers as a result of the implementation of our strategies or other factors;
15. the success, financial condition and performance of our suppliers, collaboration partners and customers;
16. our ability to manage efficiently our manufacturing and logistics, as well as to ensure the quality, safety, security and timely delivery of our products and services;
17. our ability to source sufficient amounts of fully functional quality components, sub-assemblies, software and services on a timely basis without interruption and on favorable terms;
18. our ability to manage our inventory and timely adapt our supply to meet changing demands for our products;
19. any actual or even alleged defects or other quality, safety and security issues in our product;
- 20.

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the impact of a cybersecurity breach or other factors leading to any actual or alleged loss, improper disclosure or leakage of any personal or consumer data collected by us or our partners or subcontractors, made available to us or stored in or through our products;

21. our ability to successfully manage the pricing of our products and costs related to our products and operations;
22. exchange rate fluctuations, including, in particular, fluctuations between the euro, which is our reporting currency, and the US dollar, the Japanese yen and the Chinese yuan, as well as certain other currencies;
23. our ability to protect the technologies, which we or others develop or that we license, from claims that we have infringed third parties intellectual property rights, as well as our unrestricted use on commercially acceptable terms of certain technologies in our products and services;
24. the impact of economic, political, regulatory or other developments on our sales, manufacturing facilities and assets located in emerging market countries;

**Table of Contents**

25. the impact of changes in government policies, trade policies, laws or regulations where our assets are located and where we do business;
26. the potential complex tax issues and obligations we may incur to pay additional taxes in the various jurisdictions in which we do business;
27. any disruption to information technology systems and networks that our operations rely on;
28. unfavorable outcome of litigations;
29. allegations of possible health risks from electromagnetic fields generated by base stations and mobile products and lawsuits related to them, regardless of merit;
30. Nokia Siemens Networks ability to implement its new strategy and restructuring plan effectively and in a timely manner to improve its overall competitiveness and profitability;
31. Nokia Siemens Networks success in the telecommunications infrastructure services market and Nokia Siemens Networks ability to effectively and profitably adapt its business and operations in a timely manner to the increasingly diverse service needs of its customers;
32. Nokia Siemens Networks ability to maintain or improve its market position or respond successfully to changes in the competitive environment;
33. Nokia Siemens Networks liquidity and its ability to meet its working capital requirements;
34. Nokia Siemens Networks ability to timely introduce new competitive products, services, upgrades and technologies;
35. Nokia Siemens Networks ability to execute successfully its strategy for the acquired Motorola Solutions wireless network infrastructure assets;
36. developments under large, multi-year contracts or in relation to major customers in the networks infrastructure and related services business;
37. the management of our customer financing exposure, particularly in the networks infrastructure and related services business;
38. whether ongoing or any additional governmental investigations into alleged violations of law by some former employees of Siemens may involve and affect the carrier-related assets and employees transferred by Siemens to Nokia Siemens Networks; and

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39. any impairment of Nokia Siemens Networks customer relationships resulting from ongoing or any additional governmental investigations involving the Siemens carrier-related operations transferred to Nokia Siemens Networks, as well as the risk factors specified in this annual report under Item 3D. Risk Factors.

Other unknown or unpredictable factors or underlying assumptions subsequently proving to be incorrect could cause actual results to differ materially from those in the forward-looking statements. Nokia does not undertake any obligation to publicly update or revise forward-looking statements, whether as a result of new information, future events or otherwise, except to the extent legally required.

**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**

**3A. Selected Financial Data**

The financial data set forth below at December 31, 2010 and 2011 and for each of the years in the three-year period ended December 31, 2011 have been derived from our audited consolidated financial statements included in Item 18 of this annual report. Financial data at December 31, 2007, 2008, and 2009 and for each of the years in the two-year period ended December 31, 2008 have been derived from our previously published audited consolidated financial statements not included in this annual report.

The financial data at December 31, 2010 and 2011 and for each of the years in the three-year period ended December 31, 2011 should be read in conjunction with, and are qualified in their entirety by reference to, our audited consolidated financial statements.

**Table of Contents**

The audited consolidated financial statements from which the selected consolidated financial data set forth below have been derived were prepared in accordance with IFRS.

	Year Ended December 31,					2011 <sup>(1)</sup> (USD)
	2007 <sup>(1)</sup> (EUR)	2008 <sup>(1)</sup> (EUR)	2009 <sup>(1)</sup> (EUR)	2010 <sup>(1)</sup> (EUR)	2011 <sup>(1)</sup> (EUR)	
<b>(in millions, except per share data)</b>						
<b>Profit and Loss Account Data</b>						
Net sales	51 058	50 710	40 984	42 446	38 659	50 152
Operating profit	7 985	4 966	1 197	2 070	(1 073)	(1 392)
Profit before tax	8 268	4 970	962	1 786	(1 198)	(1 554)
Profit attributable to equity holders of the parent	7 205	3 988	891	1 850	(1 164)	(1 510)
Earnings per share (for profit attributable to equity holders of the parent)						
Basic earnings per share	1.85	1.07	0.24	0.50	(0.31)	(0.40)
Diluted earnings per share	1.83	1.05	0.24	0.50	(0.31)	(0.40)
Cash dividends per share	0.53	0.40	0.40	0.40	0.20 <sup>(2)</sup>	0.26 <sup>(2)</sup>
Average number of shares (millions of shares)						
Basic	3 885	3 744	3 705	3 709	3 710	3 710
Diluted	3 932	3 780	3 721	3 713	3 710	3 710
<b>Balance Sheet Data</b>						
Fixed assets and other non-current assets	8 305	15 112	12 125	11 978	10 750	13 946
Cash and other liquid assets <sup>(3)</sup>	11 753	6 820	8 873	12 275	10 902	14 143
Other current assets	17 541	17 650	14 740	14 870	14 553	18 880
Total assets	37 599	39 582	35 738	39 123	36 205	46 969
Capital and reserves attributable to equity holders of the parent	14 773	14 208	13 088	14 384	11 873	15 403
Non-controlling interests	2 565	2 302	1 661	1 847	2 043	2 650
Long-term interest-bearing liabilities	203	861	4 432	4 242	3 969	5 149
Other long-term liabilities	1 082	1 856	1 369	1 110	876	1 137
Borrowings due within one year	887	3 591	771	1 037	1 352	1 754
Other current liabilities	18 089	16 764	14 417	16 503	16 092	20 876
Total shareholders' equity and liabilities	37 599	39 582	35 738	39 123	36 205	46 969
Net interest-bearing debt <sup>(4)</sup>	(10 663)	(2 368)	(3 670)	(6 996)	(5 581)	(7 240)
Share capital	246	246	246	246	246	319

- (1) As from April 1, 2007, our consolidated financial data includes that of Nokia Siemens Networks on a fully consolidated basis. Nokia Siemens Networks, a company jointly owned by Nokia and Siemens AG ( "Siemens" ), is comprised of our former Networks business group and Siemens' carrier-related operations for fixed and mobile networks. Accordingly, our consolidated financial data for the year ended December 31, 2007 is not directly comparable to any subsequent years. Our consolidated financial data for the periods prior to April 1, 2007 included our former Networks business group only.
- (2) The cash dividend for 2011 is what the Board of Directors will propose for shareholders' approval at the Annual General Meeting convening on May 3, 2012.
- (3) For the years ended December 31, 2009, 2010 and 2011, cash and other liquid assets consist of the following captions from our consolidated balance sheets: (1) bank and cash, (2) available-for-sale investments, cash equivalents, (3) available-for-sale investments, liquid assets and (4) investments at fair value through profit and loss, liquid assets. For the previous years, cash and other liquid assets consist of the following captions from our consolidated balance sheets: (1) bank and cash, (2) available-for-sale investments, cash equivalents, and (3) available-for-sale investments, liquid assets.
- (4) Net interest-bearing debt consists of borrowings due within one year and long-term interest-bearing liabilities, less cash and other liquid assets.

## **Table of Contents**

### **Distribution of Earnings**

We distribute retained earnings, if any, within the limits set by the Finnish Companies Act. We make and calculate the distribution, if any, either in the form of cash dividends, share buy-backs, or in some other form or a combination of these. There is no specific formula by which the amount of a distribution is determined, although some limits set by law are discussed below. The timing and amount of future distributions of retained earnings, if any, will depend on our future results and financial condition.

Under the Finnish Companies Act, we may distribute retained earnings on our shares only upon a shareholders' resolution and subject to limited exceptions in the amount proposed by our Board of Directors. The amount of any distribution is limited to the amount of distributable earnings of the parent company pursuant to the last accounts approved by our shareholders, taking into account the material changes in the financial situation of the company after the end of the last financial period and a statutory requirement that the distribution of earnings must not result in insolvency of the company. Subject to exceptions relating to the right of minority shareholders to request for a certain minimum distribution, the distribution may not exceed the amount proposed by the Board of Directors.

### **Share Buy-backs**

Under the Finnish Companies Act, Nokia Corporation may repurchase its own shares pursuant to either a shareholders' resolution or an authorization to the Board of Directors approved by the company's shareholders. The authorization may amount to a maximum of 10% of all the shares of the company and its maximum duration is 18 months. The Board of Directors has been regularly authorized by our shareholders at the Annual General Meetings to repurchase Nokia's own shares, and during the past three years the authorization covered 360 million shares in 2009, 2010 and 2011. The amount authorized each year has been at or slightly under the maximum limit provided by the Finnish Companies Act. Nokia has not repurchased any of its own shares since September 2008.

On January 26, 2012, we announced that the Board of Directors will propose that the Annual General Meeting convening on May 3, 2012 authorize the Board to resolve to repurchase a maximum of 360 million Nokia shares. The proposed maximum number of shares that may be repurchased is the same as the Board's current share repurchase authorization, and it corresponds to less than 10% of all the shares of the company. The shares may be repurchased in order to develop the capital structure of the company, finance or carry out acquisitions or other arrangements, settle the company's equity-based incentive plans, be transferred for other purposes, or be cancelled. The shares may be repurchased either through a tender offer made to all shareholders on equal terms, or through public trading from the stock market. The authorization would be effective until June 30, 2013 and terminate the current authorization for repurchasing of the company's shares resolved at the Annual General Meeting on May 3, 2011.

The table below sets forth actual share buy-backs by Nokia in respect of each fiscal year indicated.

	Number of shares	EUR millions (in total)
2007	180 590 000	3 884
2008	157 390 000	3 123
2009		
2010		
2011		

### **Cash Dividends**

On January 26, 2012, we announced that the Board of Directors will propose for shareholders' approval at the Annual General Meeting convening on May 3, 2012 a dividend of EUR 0.20 per share in respect of 2011.

**Table of Contents**

The table below sets forth the amounts of total cash dividends per share and per ADS paid in respect of each fiscal year indicated. For the purposes of showing the US dollar amounts per ADS for 2007 through 2011, the dividend per share amounts have been translated into US dollars at the noon buying rate in New York City for cable transfers in euro as certified for customs purposes by the Federal Reserve Bank of New York on the respective dividend payment dates.

	EUR per share	USD per ADS	EUR millions (in total)
2007	0.53	0.83	1 992
2008	0.40	0.54	1 481
2009	0.40	0.49	1 483
2010	0.40	0.57	1 484
2011	0.20 <sup>(1)</sup>	<sup>(2)</sup>	749 <sup>(3)</sup>

- (1) The proposal of the Board of Directors for shareholders' approval at the Annual General Meeting convening on May 3, 2012.  
(2) The final US dollar amount will be determined on the basis of the decision of the Annual General Meeting and the dividend payment date.  
(3) Maximum amount to be distributed as dividend based on the number of shares at December 31, 2011. Earlier year figure represents the total actual amount paid.

We make our cash dividend payments in euro. As a result, exchange rate fluctuations will affect the US dollar amount received by holders of ADSs on conversion of these dividends. Moreover, fluctuations in the exchange rates between the euro and the US dollar will affect the dollar equivalent of the euro price of the shares on NASDAQ OMX Helsinki and, as a result, are likely to affect the market price of the ADSs in the United States. See also Item 3D. Risk Factors. Our net sales, costs and results of operations, as well as the US dollar value of our dividends and market price of our ADSs, are affected by exchange rate fluctuations, particularly between the euro, which is our reporting currency, and the US dollar, the Japanese yen and the Chinese yuan, as well as certain other currencies.

**Exchange Rate Data**

The following table sets forth information concerning the noon buying rate for the years 2007 through 2011 and for each of the months in the six-month period ended February 29, 2012, expressed in US dollars per euro. The average rate for a year means the average of the exchange rates on the last day of each month during a year. The average rate for a month means the average of the daily exchange rates during that month.

For the year ended December 31:	Exchange rates			
	Rate at Period end	Average rate (USD per EUR)	Highest rate	Lowest rate
2007	1.4603	1.3797	1.4862	1.2904
2008	1.3919	1.4695	1.6010	1.2446
2009	1.4332	1.3955	1.5100	1.2547
2010	1.3269	1.3216	1.4536	1.1959
2011	1.2973	1.3931	1.4875	1.2926
September 30, 2011	1.3449	1.3747	1.4283	1.3446
October 31, 2011	1.3947	1.3732	1.4172	1.3281
November 30, 2011	1.3453	1.3558	1.3803	1.3244
December 31, 2011	1.2973	1.3155	1.3487	1.2926
January 31, 2012	1.3053	1.2910	1.3192	1.2682
February 29, 2012	1.3359	1.3238	1.3463	1.3087

On March 2, 2012, the noon buying rate was USD 1.3202 per EUR 1.00.



**Table of Contents**

**3B. Capitalization and Indebtedness**

Not applicable.

**3C. Reasons for the Offer and Use of Proceeds**

Not applicable.

**Table of Contents****3D. Risk Factors**

Set forth below is a description of risk factors that could affect Nokia. There may be, however, additional risks unknown to Nokia and other risks currently believed to be immaterial that could turn out to be material. These risks, either individually or together, could adversely affect our business, sales, profitability, results of operations, financial condition, market share, brand, reputation and share price from time to time. Unless otherwise indicated or the context otherwise provides, references in these risk factors to Nokia, we, us and our mean Nokia's consolidated operating segments. Additional risks primarily related to Nokia Siemens Networks that could affect Nokia are detailed under the heading "Nokia Siemens Networks" below.

***Our success in the smartphone market depends on our ability to introduce and bring to market quantities of attractive, competitively priced Nokia products with Windows Phone that are positively differentiated from our competitors' products, both outside and within the Windows Phone ecosystem, and receive broad market acceptance.***

The mobile communications industry continues to undergo significant changes. The growing significance of the Internet in communication has meant that the mobile telecommunications, computing, consumer electronics and Internet industries are increasingly converging to form a broader industry encompassing Internet-connected products of varying shapes and sizes. As a result, the market for smartphones has shifted from a device oriented strategy to a platform oriented strategy. Today, industry participants are creating competing ecosystems of mutually beneficial partnerships to combine hardware, software, services and an application environment to create high-quality differentiated smartphones. Certain smartphone platforms and their related ecosystems have gained significant momentum and market share, specifically Apple's iOS platform and Google's Android platform, and are continuing apace, with Android-based smartphones increasingly gaining market share at lower price points. In February 2011, we announced our partnership with Microsoft to bring together our respective complementary assets and expertise to build a new global mobile ecosystem for smartphones (the "Microsoft partnership"). Under the Microsoft partnership, formalized in April 2011, we are adopting, and are licensing from Microsoft, Windows Phone as our primary smartphone platform. Although Microsoft will continue to license Windows Phone to other mobile manufacturers, the Microsoft partnership allows us to customize the Windows Phone platform with a view to differentiating Nokia smartphones from those of our competitors that also use the Windows Phone platform. The first Nokia smartphones powered by Windows Phone were launched in October 2011 under the Lumia brand.

Our plans to introduce and bring to market quantities of attractive, competitively priced Nokia products with Windows Phone that receive broad market acceptance and are positively differentiated from competitors' products, both outside and within the Windows Phone ecosystem are subject to certain risks and uncertainties, which could, either individually or together, significantly impair our ability to compete effectively in the smartphone market. If we are not successful in the smartphone market, our business would become more dependent on sales in the feature phone market, which is, especially at lower price points, an increasingly commoditized and intensely competitive market, with substantially lower growth potential, prices and profitability compared to the smartphone market. Recently, smartphones of other manufacturers, particularly Android-based smartphones, are reaching lower price points, which is increasingly reducing the addressable market and lowering the price points for feature phones and may adversely affect our feature phone business.

The principal risks and uncertainties that could undermine the competitive position of our Nokia products with Windows Phone include the following:

Our strategy for Nokia products with Windows Phone may not enable us to achieve in a timely manner the necessary scale, product breadth, geographical reach and localization to be sufficiently competitive in the smartphone market.

**Table of Contents**

The Windows Phone platform is a more recent addition to the market focused on high-end smartphones. While adoption is increasing and consumer awareness growing, it is still much less widely used than the Android and iOS platforms. As with any new platform, we may not succeed in developing it into a sufficiently attractive and competitive smartphone platform.

The Windows Phone ecosystem may not attract developers who will contribute content and applications, thus making our Nokia products with Windows Phone less appealing to consumers.

The Microsoft Windows Phone platform may not support the hardware configurations required to succeed in becoming a sufficiently price competitive platform and may limit our ability to develop a price competitive smartphone portfolio of products.

We may not be able to introduce a compelling portfolio of Nokia products with Windows Phone that include new hardware and design innovations. Additionally, we may not be able to introduce functionalities such as location-based services and entertainment or otherwise customize our Nokia products with Windows Phone in order to positively differentiate our products from competitors products, both outside and within the Windows Phone ecosystem.

We may face delays in bringing our Nokia products with Windows Phone to various markets due to, for instance, manufacturing difficulties, delays in software and/or hardware development or product or sales package customization to accommodate various markets or operator requests.

We may face issues in selecting, engaging or securing support from leading operators and retailers for the initial launches and sales ramp-up of our Nokia products with Windows Phone due to, for instance, inadequate sales incentives, training of sales personnel, marketing support and experience in generating interest for a new and relatively unfamiliar Windows Phone platform in an otherwise highly competitive market. Delayed or non-optimal initial launches and sales ramp-up could result in diminished support from leading operators and retailers and low consumer interest for subsequent launches of our Nokia products with Windows Phone and may also adversely affect our Nokia brand generally and sales of our other Nokia mobile products.

Consumers may not prefer the Windows Phone user experience, interface or software functionality.

We may not succeed in creating a high level of consumer interest for our Nokia products with Windows Phone, in converting interest for our Nokia products with Windows Phone to purchase decisions or in making the Nokia brand more desirable than brands of our competitors in smartphones.

Microsoft may not be able to provide the software innovations and features we rely on for the Windows Phone operating system in a timely manner, if at all.

Our competitors may provide incentives to operators, retailers or developers that may make it unattractive for them to support Nokia products with Windows Phone, or our competitors may use various technical and commercial means to make it unattractive for consumers that currently use another product to purchase Nokia products with Windows Phone.

Our ongoing transition to the Windows Phone platform may prove to be too long to compete effectively in the smartphone market longer-term given the ongoing developments of other competing smartphone platforms.

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Our strategy for Nokia products with Windows Phone may erode our brand identity in markets where we are traditionally strong and may not enhance our brand identity in markets where we are weak. For example, our association with the Microsoft brand may not accelerate our access to a broader market in the United States.

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## Table of Contents

In choosing to adopt Windows Phone as our primary smartphone platform, we may forgo more competitive alternatives achieving greater and faster acceptance in the smartphone market. If the benefits of the Microsoft partnership do not materialize as expected, more competitive alternatives may not be available to us in a timely manner, or at all.

We manufacture mobile devices, but currently no other adjacent products, such as tablets, computers and other connected devices. As a result, Nokia products with Windows Phone may be a less compelling choice for consumers who wish to purchase multiple mobile products from the same manufacturer or with the same or compatible operating system in order to facilitate a smooth interaction among mobile products and electronic products of different types and screen sizes, such as mobile devices, tablets, computers and televisions.

***We may not be able to make Nokia products with Windows Phone a competitive choice for consumers unless, together with Microsoft, we successfully encourage and support a competitive and profitable global ecosystem for Windows Phone smartphones that achieves sufficient scale, value and attractiveness to all market participants.***

The emergence of ecosystems in and around the mobile device market for smartphones represents the broad convergence of the mobile communication, computing, consumer electronics and Internet industries. Different industry participants, such as hardware manufacturers, software providers, developers, publishers, entertainment providers, advertisers and ecommerce specialists, are forming increasingly large communities of mutually beneficial partnerships in order to bring their offerings to the market. At the heart of the major smartphone ecosystems is the operating system and the development platform upon which smartphones are based and services built. In February 2011, we announced our partnership with Microsoft and adopted Windows Phone as our primary smartphone platform designed to build a competitive global mobile ecosystem for our smartphones.

The creation of an ecosystem for Windows Phone smartphones that receives acceptance from contributing parties and reaches sufficient scale is critical to making our Nokia products with Windows Phone a competitive choice. If a successful Windows Phone ecosystem does not materialize in a timely manner, this would have a material adverse affect on sales of our Nokia products with Windows Phone and our profitability and otherwise significantly impair our ability to compete effectively in the smartphone market. The principal risks and challenges that could prevent the creation of a successful ecosystem for Nokia Windows Phones include the following:

The Windows Phone platform may not achieve or retain broad or timely market acceptance or be preferred by ecosystem participants, mobile operators and consumers.

If we are not successful in our partnership with Microsoft or the benefits of that partnership do not materialize as expected, we may have limited our options to build a competitive smartphone ecosystem with another partner or join another competitive smartphone ecosystem in a timely or economically profitable manner.

We may not be able to develop and execute with speed sufficient quantities of high-quality differentiated Nokia products with Windows Phone in order to achieve the scale needed for a competitive global ecosystem.

Applicable developer tools for the Windows Phone platform may not gain needed traction or acceptance in the market, may be introduced late, or when introduced, may not offer technologies that developers are willing to use.

We may not be able to provide sufficient opportunities to innovate and customize on the Windows Phone platform in order to attract developers and other ecosystem participants seeking to differentiate their offerings on our smartphones from those of our competitors.

## **Table of Contents**

We may not succeed in rapidly expanding the Windows Phone platform and related ecosystem beyond its current use in high-end smartphones to more affordable smartphones, limiting the expansion of this ecosystem.

Other competitive major smartphone ecosystems have advantages that may be difficult for us to overcome, such as first-mover advantage, momentum, engagement by developers, mobile operators and consumers and brand preference, and their advantages may become even greater before we complete our transition to the Windows Phone platform.

We may not succeed in creating business models which provide value to all participants in the Windows Phone ecosystem, including ourselves.

We may not be able to change our mode of working or culture sufficiently to collaborate effectively and efficiently both internally and externally with a large community of partners.

We manufacture mobile devices, but currently no other adjacent products, such as tablets, computers and other connected devices. As a result, we may not be able to attract developers and other participants to the Windows Phone ecosystem if they do not have the opportunity to leverage their offerings across a wide range of different mobile and electronic products.

Consumers may be reluctant to provide personal data to us as a result of our partnership with Microsoft, which would hamper the success of the Windows Phone ecosystem.

The global ecosystem for the Windows Phone platform may not be flexible enough to allow local ecosystems to develop around and in connection with it. For instance, we and other participants in the Windows Phone ecosystem may not succeed in innovating and developing sufficiently locally relevant services, applications and content in a speedy and cost-efficient manner to attract and retain consumers in multiple markets with divergent local needs and preferences.

There may be elements in the Windows Phone ecosystem that are not in other ecosystems we support, which may require additional resources and duplicative investments by us.

***We may experience further difficulties in having a competitive offering of Symbian devices and maintaining the economic viability of the Symbian smartphone platform during the transition to Windows Phone as our primary smartphone platform.***

Prior to the announcement of the Microsoft partnership in February 2011 and the adoption of Windows Phone as our primary smartphone platform, the Symbian operating system was our primary smartphone platform. Following the announcement of the Microsoft partnership, our strategy included the expectation to sell approximately 150 million more Symbian devices in the years to come. However, the demand for our Symbian devices began to deteriorate. The consequent decline in our Smart Devices net sales and profitability was a result of both a decline in our Symbian smartphone volume market share and pressure on pricing as competitors aggressively capitalized on our platform and product transition. Towards the end of 2011, the competitiveness of our Symbian devices continued to deteriorate as changing market conditions created increased pressure on Symbian, which further adversely affected our Smart Devices net sales, profitability, market share and brand perception. In certain markets, there has been an acceleration of the trend towards lower-priced smartphones with specifications that are different from Symbian's traditional strengths, which has contributed to a faster decline in our Symbian volumes than we anticipated. We expect this trend to continue in 2012.

To endeavor to maximize the value of our Symbian asset going forward, we expect to continue to ship Symbian devices in specific regions and distribution channels, as well as to continue to provide software support to our Symbian customers, through 2016. As a result of the changing market

**Table of Contents**

conditions, combined with our increased focus on Nokia products with Windows Phone, we believe we will sell fewer Symbian devices than previously anticipated.

We invested our own resources in developing Symbian until September 2011 when we concluded an agreement with Accenture to outsource the Symbian software development and support services. Our ability to have a competitive offering of Symbian devices and to maintain the economic viability of the Symbian smartphone platform during the transition to Windows Phone is subject to certain risks and uncertainties, which could, either individually or together, significantly impair our market share in smartphones, net sales and profitability. Those risks and uncertainties include the following:

Increasingly, our mobile operator and distributor customers and consumers no longer see our Symbian smartphones as attractive during our transition to Windows Phone. Our mobile operator and distributor customers may choose not to promote and market some or all of our Symbian smartphones, or they may require financial incentives, such as significant price reductions, to do so. This is likely to result in additional losses of market share, which could be substantial, and which will not be offset at least in the near term by sales of our Nokia products with Windows Phone. We may not be able to regain our smartphone market share losses when quantities of Nokia products with Windows Phone do become widely commercially available.

The current or former Symbian smartphone owners may choose not to purchase our Nokia products with Windows Phone.

Applications, services and content developed by developers and other Symbian partners may rapidly decline or cease, which would diminish the viability of our Symbian smartphones and their attractiveness to our mobile operator and distributor customers and consumers, as well as limit the opportunity to transition compatible aspects of our Symbian development to the Windows Phone ecosystem.

The lower than anticipated sales volumes of our Symbian smartphones resulted in the recognition of allowances in 2011 for excess component inventory and future purchase commitments related to Symbian, and we may need to recognize additional allowances in the future if our currently anticipated sales volumes deteriorate further.

Our suppliers may reduce the availability of certain components for our Symbian smartphones or we may not be able to obtain certain or sufficient components for our Symbian smartphones at attractive prices resulting in increased costs that we may not be able to pass on to our customers.

We may not be able to provide the necessary support for our employees working on Symbian related matters and business during the transition to Windows Phone.

We may not be able to efficiently manage the phase-out over time of our investment in Symbian while maintaining accepted profitability of those products.

Our strategic partnership with Accenture is subject to various risk and uncertainties, which may adversely affect our ability to have an attractive offering of Symbian devices and serve our Symbian customers. Accenture may not be able to provide new updates and functionalities to the Symbian platform that keep it sufficiently attractive and there may be delays in updates or new functionalities. Accenture may lose key personnel and skilled employees involved in the development of the Symbian platform causing quality issues or delays.

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Our strategic choices regarding our Symbian platform and market perceptions of the Symbian platform may have a negative effect on the attractiveness of our other mobile products and the Nokia brand.



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**Table of Contents**

*We may not be able to produce attractive and competitive feature phones, including devices with more smartphone-like features, in a timely and cost efficient manner with differentiated hardware, software, localized services and applications.*

The feature phone market, also referred to as the mobile phone market and a traditional area of strength for us, is undergoing significant changes. Today, a feature phone-specific ecosystem has emerged involving very low-cost components and manufacturing processes. Speed to market and attractive pricing are critical factors for success. In particular, the availability of complete mobile solutions chipsets and software from low-cost reference design chipset manufacturers has enabled the very rapid and low-cost production of feature phones by numerous manufacturers particularly in China and India, which are gaining significant market share in emerging markets, as well as bringing some locally relevant innovations to the market. Moreover, many mid-range to high-end feature phones increasingly offer access to the Internet and applications and provide more smartphone-like features and design, blurring the distinction between smartphones and feature phones. We are subject to intense competition over the entire spectrum we address through our Mobile Phones business unit. Recently, smartphones of other manufacturers, particularly Android-based smartphones, are reaching lower price points, which is increasingly reducing the addressable market and lowering the price points for feature phones.

Accordingly, we need to provide feature phones in a timely and cost-efficient manner with differentiated hardware, software, localized services and applications that attract new users and connect new and existing users to an affordable Internet and application experience. For higher-end feature phones in particular, the platform is a differentiating element with the addition of new functionalities and possibilities for customization and an improved user experience. If we are unable to produce competitive low-end and high-end feature phones and preserve our market share and profitability of our feature phones business, our business, results of operation and financial condition could be materially and adversely affected. Our ability to achieve this is subject to certain risks and uncertainties, including the following:

We may not be able to leverage our traditional competitive strengths of scale in manufacturing and logistics, as well as in our marketing and sales channels for instance to increase the speed to market of our feature phones in a sufficiently cost-competitive manner, particularly with mobile operators and consumers requiring increasing customization to meet divergent local needs and preferences.

The addressable market for feature phones may further reduce in size if the higher-end price points become dominated by more affordable smartphones, such as Android-based smartphones. In some regions, especially Europe and China, overall market demand for feature phones may decline further.

The platforms that we deploy for our feature phones may not be sufficiently attractive, flexible and cost efficient for application developers and other partners to create a vibrant ecosystem for feature phones with increasingly smartphone-like features, such as Internet access and applications.

We may need to make significant investments to further develop platforms for devices from our Mobile Phones business unit. There can be no assurances regarding consumer acceptance of such platform developments or that the development costs would result in a positive return on our investments.

We may not succeed in innovating and developing sufficiently locally relevant services, applications and content in a speedy and cost-efficient manner to attract and retain consumers in multiple markets with divergent local needs and preferences.

Management focus on the development and launches of our Nokia products with Windows Phone and the creation of a successful ecosystem for Windows Phone smartphones with Microsoft may result in less management focus on our feature phone business.

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**Table of Contents**

There may be elements in the feature phone ecosystems that are not in other ecosystems we support, such as the Windows Phone ecosystem, which may require additional resources and duplicative investments by us.

Our strategic choices regarding our Symbian platform and market perceptions of the Symbian platform may have a negative effect on the attractiveness of our feature phones as consumers may confuse the Symbian platform with our feature phone platforms.

***We face intense competition in mobile products and in the digital map data and related location-based content and services markets.***

We experience intense competition in every aspect of our business and across all markets for our mobile products. Mobile device markets are segmented, diversified and increasingly commoditized. We face competition from a growing number of participants in different user segments, price points and geographical markets, as well as layers of the mobile product using different competitive means in each of them. In some of those layers, we may have more limited experience and scale than our competitors. This makes it more difficult and less cost-efficient for us to compete successfully with differentiated offerings across the whole mobile device market against more specialized competitors. It also limits our ability to leverage effectively our scale and other traditional strengths, such as our brand, hardware assets, manufacturing and logistics, distribution, strategic sourcing, research and development, intellectual property and increasingly design, to achieve significant advantages compared to our competitors. We have been historically more successful where our mobile devices are sold to consumers in open distribution through non-operator parties. The increase in markets with operator-driven distribution and business models where operator subsidies are prevalent may adversely affect our ability to compete effectively in those markets. We are recently seeing such developments taking place in markets where we have been traditionally strong, for instance in China. Additionally, our scale benefits may be adversely affected as new regional or operator requirements are introduced.

In the smartphone market, we face intense competition from traditional mobile device manufacturers and companies in related industries, such as Internet-based product and service providers, mobile operators, business device and solution providers and consumer electronics manufacturers. Some of those competitors are currently viewed as more attractive partners for application developers, content providers and other key industry participants, resulting in more robust global ecosystems and more appealing smartphones; have more experience, skills, speed of product development and execution, including software development, and scale in certain segments of the smartphone market; have a stronger market presence and brand recognition for their smartphones; have created different business models to tap into significant new sources of revenues, such as advertising and subscriptions; or generally have been able to adjust their business models and operations in an effective and timely manner to the developing smartphone and related ecosystem market requirements.

The availability and success of Google's Android platform has made entry and expansion in the smartphone market easier for a number of hardware manufacturers, which have chosen to join Android's ecosystem, especially at the mid-to-low range of the smartphone market. Additionally, this is increasingly reducing the addressable market and lowering the price points for feature phones. Product differentiation is more challenging, however, potentially leading to increased commoditization of Android-based devices with the resulting downward pressure on pricing. On the other hand, the significant momentum and market share gains of the global ecosystems around Apple's iOS platform and the Android platform have increased the competitive barriers to additional entrants looking to build a competing global smartphone ecosystem, for instance Nokia using the Windows Phone platform. At the same time, other ecosystems are being built which are attracting developers and consumers, and may result in fragmentation among ecosystem participants and the inability of new ecosystems to gain sufficient competitive scale.

## **Table of Contents**

During the transition of our smartphones to the Windows Phone platform, our competitors have and will continue to endeavor to attract our current and future consumers, mobile operators and other customers to their smartphone offerings. Our competitors use aggressive business strategies in attracting and retaining customers while dissuading their switching to other products. If our competitors succeed in that endeavor, our smartphone market share could erode, which we may not be able to regain even when quantities of Nokia products with Windows Phone are widely commercially available.

In the feature phone market, an increasing number of our competitors, particularly recent entrants, have used, and we expect will continue to use, more aggressive pricing and marketing strategies, different design approaches and alternative technologies that consumers may prefer over our offering of feature phones. For example, certain industry participants bundle mobile device deals with their networks deals. Some competitors, with lower profitability expectations, have chosen to focus on building feature phones based on commercially available components, software and content, in some cases available at very low or no cost, which enable them to introduce their products much faster and at significantly lower cost to the consumer than we are able to do. Smartphones of other manufacturers, particularly Android-based smartphones, are reaching lower price points which is increasingly reducing the addressable market and lowering the price points for feature phones and may adversely affect our feature phone business.

We are also seeing the emergence of various local mobile device manufacturers that are strong in a certain country or region, especially in emerging markets. Success of such competitors could adversely affect sales of our mobile devices in various countries such as China where we have been traditionally strong.

We also face competition from vendors of legitimate, as well as unlicensed and counterfeit, products with manufacturing facilities primarily centered around certain locations in Asia and other emerging markets. The entry barriers for these vendors are very low as they are able to take advantage of licensed and unlicensed commercially available free or low cost components, software and content. Our failure to provide low cost differentiated alternatives for consumers in a timely manner or to enforce our intellectual property rights adversely affects our ability to compete efficiently in the market for feature phones. Some of our competitors may also benefit from governmental support in their home countries and other measures that may have protectionist objectives. These factors could reduce the price competitiveness of our feature phones and have an adverse effect on our sales and profitability.

The growing significance of ecosystems has further reinforced the importance of product design as a means for differentiating offerings from others within the same or a different ecosystem. Additionally, together with the growth of cloud computing, where data and services are hosted by remote servers rather than on devices themselves, ecosystems are also leading some vendors to pursue a strategy of developing and providing devices and electronic products of different form factors and screen sizes, such as mobile devices, tablets and televisions and software which make them compatible and support their smooth interaction with one another. As consumers acquire different devices, some may choose to purchase products and services from only one ecosystem or vendor. If our competitors succeed in capturing markets where we are not currently present, this could erode our competitive position. For instance, we currently do not have tablets or other adjacent products in our mobile product portfolio, which may result in our inability to compete effectively in the tablet and developing multi-screen market segments in the future or forgoing those potential growth opportunities, and may also have an adverse effect on the desirability of our smartphones.

Consumers may be more reluctant to provide personal data to us, which would hamper our competitive position in terms of our current business models, or new business models, that rely on access to personal data. For instance, the possible inability to collect and utilize consumer behavioral data may prevent us from efficiently developing product and services, do efficient marketing, take actions to enable consumer retention and work efficiently with service developers.

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**Table of Contents**

A key component of our current strategy is investment in future disruptive technologies, including investment in longer-term market exploration of next-generation devices, platforms and user experiences. Additionally, we continuously seek new business and monetization models. Certain of our competitors have significant resources to invest in market exploration and seek new monetization models or drive industry development and capture value in areas where we are not competitive. Those areas can be, for instance, monetization models linked to the use of large amounts of consumer data, large connected communities, home entertainment services and alternative payment mechanisms. We may not be able to invest our own resources to compete in these areas, which may in the future prove a competitive disadvantage for us. If we fail in these aspects of our strategy, we may not realize a return on our investments or may incur operating losses and impair our competitiveness for the longer-term.

With respect to digital map data and related location-based content, several global and local companies, as well as governmental and quasi-governmental agencies, are making more map data with improving coverage and content, and high quality, available free of charge or at lower prices. For example, our Location & Commerce business competes with Google which uses an advertising-based model allowing consumers and companies to use its map data and related services in their products free of charge to consumers. Google has continued to leverage Google Maps as a differentiator for Android bringing certain new features and functionality to that platform. Apple has also sought to strengthen its location assets and capabilities through targeted acquisitions and organic growth. Location & Commerce also competes with companies such as TomTom, which licenses its map data and where competition is focused on the quality of the map data and pricing, and Open Street Map, which is a community-generated open source map available to users free of charge. Aerial, satellite and other location-based imagery is also becoming increasingly available and competitors are offering location-based products and services with the map data to both business customers and consumers in order to differentiate their offerings. Those developments may encourage new market entrants, cause business customers to incorporate map data from sources other than our Location & Commerce business or reduce the demand for fee-based products and services which incorporate Location & Commerce map database. Accordingly, our Location & Commerce business must positively differentiate its digital map data and related location-based content from similar offerings by our competitors and create competitive business models for our customers.

***We may not be able to retain, motivate, develop and recruit appropriately skilled employees, which may hamper our ability to implement our strategies, particularly our current mobile products strategy and location-based services and commerce strategy, and we may not be able to effectively and smoothly implement the new operational structure for our businesses, achieve targeted efficiencies and reductions in operating expenses.***

We announced a new strategy, leadership team and operational structure for our Devices & Services business on February 2011 designed to focus on speed, results and accountability. In June 2011, we announced plans to create a new Location & Commerce business which combines NAVTEQ and our Devices & Services social location services operations, which became operational from October 1, 2011. The implementation of these strategies and changes in operational structure are expected to have a significant impact on our operations and personnel, including substantial reductions in personnel following the appropriate consultations. Additionally, reorganizations and restructurings result in cash outflows related to such activities, as well as restructuring charges and associated impairments. We have made announcements in 2011 and 2012 concerning planned personnel reductions, outsourcing, plans to align our site operations, plans to change our manufacturing operations and to reconfigure certain of our European and Americas manufacturing facilities and adjust our manufacturing capacity. Additionally, in November 2011 Nokia Siemens Networks announced plans for a strategic shift and restructuring targeted to maintain long-term competitiveness and improve profitability discussed below under risks primarily related to Nokia Siemens Networks.

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**Table of Contents**

These strategies also involve changing our mode of working and culture to facilitate speed and agility in innovation, product development and aimed at increasing the efficiency of execution and bringing more accountability for achieving results. Organizational changes of this nature consume significant time, attention and resources of senior management and others within the organization, potentially diverting their attention from other aspects of our business. Additionally, when such changes are planned and implemented they may cause disruption and dissatisfaction among employees, as well as fatigue due to the cumulative effect of several other reorganizations in the past few years. As a result, employee motivation, morale and productivity may be reduced causing inefficiencies and other problems across the organization and leading to the loss of key personnel and the related costs associated in dealing with such matters. Moreover, our employees may be targeted by our competitors during the implementation of our strategies, and some employees may be more receptive to such offers leading to the loss of key personnel. These factors may have a more pronounced adverse affect due to the cumulative effect of the previous reorganizations. Should we fail to implement new operational structures effectively and smoothly and effect the changes in our mode of working and culture, the efficiency of our operations and performance may be affected, which could have a material adverse effect on our business and results of operations, particularly our profitability.

Our success is dependent on our ability to retain, motivate, develop through constant competence training, and recruit appropriately skilled employees with a comprehensive understanding of our current and future businesses, technologies, software and products. This is particularly important for the successful implementation of our mobile products strategy and the Microsoft partnership and our location-based services and commerce strategy where we need highly-skilled, innovative and solutions-oriented personnel with new capabilities. The potential impacts noted above of the operational changes being implemented throughout our organization, as well as the cumulative effect of several other reorganizations in the past few years, may make it more difficult to attract the new personnel we may need to implement our strategies successfully. We may need to adjust our compensation and benefits policies and take other measures to attract, retain and motivate skilled personnel. This will require significant time, attention and resources of senior management and others within the organization and may result in increased costs. We have encountered, and may encounter in the future, shortages of appropriately skilled personnel, which may hamper our ability to implement our strategies and materially harm our business and results of operations.

Relationships with worker representatives are generally managed at site level and most worker representative agreements have been in place for several years. Our inability to negotiate successfully with representatives or failures in our relationships with the representatives could result in strikes by the workers and/or increased operating costs as a result of higher wages or benefits paid to employees as the result of a strike or other industrial action. This may affect our ability to implement our planned reorganization and restructuring or increase the amount of associated time or cost. If our employees were to engage in a strike or other work stoppage, we could experience a significant disruption of operations and/or higher ongoing labor costs.

We are targeting to reduce our Devices & Services operating expenses by more than EUR 1 billion for the full year 2013, compared to the Devices & Services operating expenses of EUR 5.35 billion for the full year 2010, excluding special items and purchase price accounting related items. This reduction is expected to come from a variety of different sources and initiatives, including those noted above. We cannot guarantee that we will achieve or sustain the targeted benefits, which could result in further restructuring efforts. In addition, we cannot guarantee that the benefits, even if achieved, will be adequate to meet our long-term growth and profitability targets.

## **Table of Contents**

*Our strategy for our Location & Commerce business may not succeed if we are unable to maintain current sources of revenue, provide support for our Devices & Services business and create new sources of revenue from our location-based services and commerce assets.*

In June 2011, we announced plans to create a new Location & Commerce business which combines NAVTEQ and our Devices & Services social location services operations. The Location & Commerce business has been an operating and reportable segment from October 1, 2011. In addition to offering a broad portfolio of products and services for the wider Internet ecosystem, the Location & Commerce business is creating integrated social location offerings in support of our strategic goals in smartphones, including Nokia products with Windows Phone, as well as our efforts to connect the next billion people to the Internet and information.

Our strategy for our Location & Commerce business is subject to certain risks and uncertainties, which could, either individually or together, significantly impair our ability to compete effectively in the targeted markets and succeed in maintaining our current sources of revenue and support for our Devices & Services business or in creating new sources of revenue. Those risks and uncertainties include the following:

The existing NAVTEQ customers may choose not to purchase, or purchase less, content or services from our Location & Commerce business.

We may not be able to use our location-based assets to compete on a standalone basis or support the overall Nokia strategy.

We may not be able to successfully integrate the operations or data from Nokia and NAVTEQ, for instance the consumer data and data we have collected on places and communities, and thus are unable to provide the targeted opportunities we plan to provide through the integration of such data.

We may lose key personnel formerly working for NAVTEQ and Devices & Services social location services operations.

We may not succeed in attracting strategic partners and developers to develop and support our ecosystem around our Location & Commerce offering, or provide services that are supported by relevant ecosystems.

We may fail to attract business partners and merchants to our service offerings to them.

The service offering we currently provide may not be competitive or another participant may provide a more competitive new offering in the future.

The advertising and local commerce business opportunities we target may not grow as expected or have the possibilities for profitable business in line with our expectations.

The Location & Commerce business may not succeed in creating integrated social location offerings in support of our strategic goals in smartphones, including Nokia products with Windows Phone, or support our efforts to connect the next billion people to the Internet and information, which would negatively affect our ability to offer compelling and differentiated mobile products.

The Microsoft partnership business model to integrate our location-based assets, including Location & Commerce, with Microsoft's Bing search engine and adCenter advertising platform to form a local search and advertising capability that generates new sources of revenue for us may not materialize as expected, or at all.

If our Location & Commerce business does not generate revenue as before or new sources of revenue for us do not materialize as expected, or at all, that business may not generate positive operating cash flow, and this or other factors may lead to the decrease in value of our location-based services and commerce assets and may result in further impairment charges.

## **Table of Contents**

The organizational changes, including planned reductions and site closures and integration, consume significant time, attention and resources of senior management and others within the organization, potentially diverting their attention from other aspects of our business.

*Our partnership with Microsoft is subject to risks and uncertainties.*

Our partnership with Microsoft is subject to certain risks and uncertainties, which could, either individually or together, significantly impair our ability to compete effectively in the smartphone market. If that were to occur, our business would become more dependent on sales in the feature phone market, which is, especially at lower price points, an increasingly commoditized and intensely competitive market, with substantially lower growth potential and profitability compared to the smartphone market. A further change in smartphone strategy could be costly and further adversely affect our market share, competitiveness and profitability. Risks and uncertainties related to our partnership with Microsoft include the following:

The agreements with Microsoft may include terms that prove unfavorable to us.

We may not succeed in creating a profitable business model as we transition from our royalty-free smartphone platform to the royalty-based Windows Phone platform due to, among other things, our inability to offset our higher cost of sales resulting from our software royalty payments to Microsoft with new revenue sources and a reduction of our operating expenses, particularly our research and development expenses.

We will need to continue to innovate and find additional ways to create patentable inventions and other intellectual property, particularly as we invest less than before into our own development under the Microsoft partnership. As a result, we may not be able to generate sufficient patentable inventions or other intellectual property to maintain, for example, the same size and/or quality patent portfolio as we have historically.

We may not be able to change our mode of working or culture to enable us to work effectively and efficiently with Microsoft in order to realize the stated benefits of the partnership in a timely manner.

The implementation and ongoing fostering and development of the Microsoft partnership will require significant time, attention and resources of our senior management and others within the organization potentially diverting their attention from other aspects of our business.

The implementation and ongoing fostering and development of the Microsoft partnership may cause disruption and dissatisfaction among employees reducing their motivation, morale and productivity, causing inefficiencies and other problems across the organization and leading to the loss of key personnel and the related costs in dealing with such matters.

We may not have or be able to recruit, retain and motivate appropriately skilled employees to implement successfully our strategies in relation to the Windows Phone platform and to work effectively and efficiently with Microsoft and the related ecosystem.

New business models require access and sometimes possession of consumer data. If we do not have such access within our own control, this may hinder our ability to pursue such opportunities.

We may be required or choose to share with Microsoft personal or consumer data that has been made available to us, which could increase the risk of loss, improper disclosure or leakage of such personal or consumer data or create negative perceptions about our ability to maintain the confidentiality of such data.



New sources of revenue expected to be generated from the Microsoft partnership, such as leveraging the Microsoft advertising assets to build and achieve the required scale for a

## **Table of Contents**

Nokia-based online advertising platform on our smartphones and increased monetization opportunities for us in services, may not materialize as expected, or at all.

The implementation and ongoing fostering and development of the Microsoft partnership may cause dissatisfaction and adversely affect the terms on which we do business with our other partners, mobile operators, distributors and suppliers, or foreclose the ability to do business with new partners, mobile operators, distributors and suppliers.

The assessment of our partnership with Microsoft and new strategy could cause lowered credit ratings of our short and long-term debt or their outlook from the credit rating agencies and, consequently, impair our ability to raise new financing or refinance our current borrowings and increase our interest costs associated with any new debt instruments.

***Our failure to keep momentum and increase our speed of innovation, product development and execution will impair our ability to bring new innovative and competitive mobile products and location-based or other services to the market in a timely manner.***

We need to identify and understand the key market trends and user segments to address consumers' expanding needs in order to bring new innovative and competitive mobile products and location-based or other services to market in a timely manner. We must follow, anticipate and be able to respond with speed to these key market trends, and actively create future trends in the market, through our product development processes. We also need to execute efficiently in creating and developing competitive products, and in bringing our products to market in a timely manner with compelling marketing messages that succeed in retaining and engaging our current, and attracting new, customers and consumers.

Our inability to innovate, develop and bring our mobile products and location-based or other services to market and delays in the ramp up of new product deliveries may result from a variety of factors, including failure to anticipate consumer trends and needs; insufficient and ineffective internal and external execution in our research and product development processes; an inability to secure necessary components or software assets from suppliers in sufficient quantities on a timely basis; or an inability to improve our time to market, including the introduction of innovations, through execution challenges in relation to our recently announced planned shift of most of our mobile device assembly to our manufacturing facilities in Asia where a majority of our suppliers are located. Additionally, the software complexity and integration of the hardware and software functionalities may cause unforeseen delays even close to the anticipated launch of the mobile product. We continue to be dependent on component providers, contract manufacturers, application developers and other partners, which can lead to additional challenges and delays that are largely outside of our control.

We operate in a fast paced and innovative industry. Our business may require significant investment to innovate and grow successfully. Such investments may include research and development, licensing arrangements, acquiring businesses and technologies, recruiting specialized expertise and partnering with third parties. Those investments may not, however, result in technologies, products or services that achieve or retain broad or timely market acceptance or are preferred by application developers, our customers and consumers. We have also made, and may make in the future, such investments through acquisitions. We may, however, fail to successfully complete planned acquisitions or integrate the acquired businesses or assets or retain and motivate their key employees.

Our ability to innovate and the need to increase the speed of our product development and execution are critical to the success of our current strategies, for instance the implementation of Windows Phone as our primary smartphone platform, product and service development for our Mobile Phones business unit and in bringing products and location-based or other services to market in a timely manner. In addition to the factors described above, delays in innovation, product development and execution may result from the added complexity of working in partnership with Microsoft to produce Nokia products

## **Table of Contents**

with Windows Phone. For example, we may not be successful in changing our mode of working to collaborate effectively and efficiently with Microsoft, or be able to develop the necessary infrastructure to manufacture Nokia products with Windows Phone, source the right chipsets and generally integrate the hardware and software that both we and Microsoft are contributing.

Failures or delays in understanding or anticipating market trends or delays in innovation, product development and execution may result in a suboptimal portfolio of mobile products and location-based or other services, gaps in certain price points or an uncompetitive offering. Our failure to deliver mobile products in a timely fashion to markets and in sufficient quantities not only may have a negative effect on our market share, net sales and profitability, but may also erode our brand through consumer disappointment. Moreover, our customers and consumers expect that the services and applications provided with and in connection with our mobile products are positively differentiated from our competitors' offerings, have the same or more capabilities than those of our competitors, function properly and are of high quality. If we fail in launching the services, have insufficient breadth of available applications or content, have inadequate or unsuccessful updates to them or there are other defects or quality issues with our mobile products, including the operating platform, software and user interface, this may cause consumer retention and engagement for our mobile products to deteriorate.

Additionally, we may not be able to ensure that our products, especially Nokia products with Windows Phone, will be offered and recommended to consumers at the point of sale, due to, for instance, inadequate sales incentives, training of sales personnel, marketing support, and experience in generating interest for a new and relatively unfamiliar Windows Phone smartphone in an otherwise highly competitive market. This could result in low sales and potentially delay ramp-up and give more momentum to competitors impacting the success of our smartphone strategy with Nokia products with Windows Phone.

***Our sales and profitability are dependent on the development of the mobile and communications industry, including location-based and other services industries, in numerous diverse markets, as well as on general economic conditions globally and regionally.***

Our sales and profitability are dependent on the development of the mobile and fixed communications industry in numerous diverse markets in terms of the number of new mobile subscribers, the number of existing subscribers who upgrade or replace their existing mobile devices and the number of active users of applications and services on our devices. In certain low penetration markets, in order to support a continued increase in mobile subscribers, we continue to be dependent on our own and mobile network operators' and distributors' ability to increase the sales volumes of lower cost mobile devices and on mobile network operators to offer affordable tariffs and tailored mobile network solutions designed for a low total cost of ownership. In highly penetrated markets, we are more dependent on our own and mobile network operators' ability to successfully introduce value-added products, such as smartphones that drive the upgrade and replacement of devices, as well as ownership of multiple devices. We are also dependent on developers' interest and success in creating value-added applications and other content in our products to achieve differentiation and additional consumer demand.

Our location-based and other services business is dependent on the development of a wide variety of products that use its data, the availability and functionality of such products and the rate at which consumers and businesses purchase those products. Nokia Siemens Networks is dependent on the pace of investments made by mobile network operators and service providers in network infrastructure and related services. If we and the other market participants are not successful in our attempts to increase subscriber numbers, stimulate increased usage or drive upgrade and replacement sales of mobile devices and develop and increase demand for value-added services, or if mobile network operators and service providers invest in the related infrastructure and services less than anticipated, our business and results of operations could be materially adversely affected.

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**Table of Contents**

As we are a global company with sales in most countries of the world, our sales and profitability are dependent on general economic conditions globally and regionally. The traditional mobile communications industry has matured to varying degrees in different markets and, consequently, the industry is more vulnerable than before to the negative impacts of deteriorations in global economic conditions. Although the overall economic environment improved during 2010, in comparison to 2009, events in 2011 and recently involving the financial and credit markets of governments in both Europe and the United States are casting doubt on the impact and timing of a sustainable global recovery in the various markets where we do business. Indeed, the concerns regarding the ongoing European debt crisis discussed below, whether real or perceived, could result in a recession, prolonged economic slowdown or otherwise negatively affect the general health and stability of the economies in certain regions where we do business. The overall economic uncertainty is making it difficult to estimate for business planning purposes the impact and timing of changes in economic conditions in the various markets where we do business. In 2011, we also witnessed political unrest in various regions where we do business, which adversely affected our sales in those markets.

Continued uncertainty or deterioration in global economic conditions or a recurrence or escalation of political unrest may result in our current and potential customers and consumers postponing or reducing spending on our products. In addition, mobile network operators may reduce the device subsidies that they offer to the consumers or attempt to extend the periods of contracts that obligate the consumer to use a certain device and postpone or reduce investment in their network infrastructure and related services. The demand for digital map information and other location-based content by automotive and mobile device manufacturers may decline in relation to any further contraction of sales in the automotive and consumer electronics industry.

In addition, any further deterioration in the global or regional economic conditions may:

Limit the availability of credit or raise the interest rates related to credit which may have a negative impact on the financial condition, and in particular on the purchasing ability, of some of our distributors, independent retailers and network operator customers and may also result in requests for extended payment terms, credit losses, insolvencies, limited ability to respond to demand or diminished sales channels available to us.

Cause financial difficulties for our suppliers and collaborative partners which may result in their failure to perform as planned and, consequently, in delays in the delivery of our products.

Increase volatility in exchange rates which may increase the costs of our products that we may not be able to pass on to our customers and result in significant competitive benefit to certain of our competitors that incur a material part of their costs in other currencies than we do; hamper our pricing; and increase our hedging costs and limit our ability to hedge our exchange rate exposure.

Result in inefficiencies due to our deteriorated ability to appropriately forecast developments in our industry and plan our operations accordingly, delayed or insufficient investments in new market segments and failure to adjust our costs appropriately.

Cause reductions in the future valuations of our investments and assets and result in impairment charges related to goodwill or other assets due to any significant underperformance relative to historical or projected future results by us or any part of our business or any significant changes in the manner of our use of acquired assets or the strategy for our overall business.

Cause lowered credit ratings of our short- and long-term debt or their outlook from the credit rating agencies and, consequently, impair our ability to raise new financing or refinance our current borrowings and increase our interest costs associated with any new debt instruments.

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**Table of Contents**

Result in failures of derivative counterparties or other financial institutions which could have a negative impact on our treasury operations.

Result in increased and/or more volatile taxes which could negatively impact our effective tax rate, including the possibility of new tax regulations, interpretations of regulations which are stricter or increased effort by governmental bodies seeking to receive taxes more aggressively.

Impact our investment portfolio and other assets and result in impairment.

We are domiciled in Europe and our reporting currency is the euro. We face certain risks in relation to the concerns regarding the European debt crisis, market perceptions concerning the instability of the euro, the potential re-introduction of individual currencies within the eurozone, or the potential dissolution of the euro entirely. Should the euro dissolve entirely, the legal and contractual consequences for holders of euro-denominated obligations would be determined by laws in effect at such time. These potential developments, or market perceptions concerning these and related issues, could adversely affect the value of our euro-denominated assets and obligations. In addition, concerns over the effect of this financial crisis on financial institutions in Europe and globally could cause significant volatility and disruption to the global economy, which could adversely impact our financial results, as well as having an adverse impact on the capital markets generally, and more specifically on the ability of us and our customers, suppliers and lenders to finance their respective businesses, to access liquidity at acceptable financing costs, if at all, on the availability of supplies and materials and on the demand for our products. Full or partial dissolution of the euro would cause additional exchange rate risks related to dividends, foreign cash balances and investments. As the euro is our reporting currency, the dissolution of euro would result in increased costs to adjust our financial reporting and result in increased volatility in our reported results of operations and financial condition.

We currently believe our funding position to be sufficient to meet our operating and capital expenditures in the foreseeable future. However, adverse developments in the global financial markets could have a material adverse effect on our financial condition and results of operations. For a more detailed discussion of our liquidity and capital resources, see Item 5B. Liquidity and Capital Resources and Note 34 of our consolidated financial statements included in Item 18 of this annual report.

***Our products include numerous patented standardized or proprietary technologies on which we depend. Third parties may use without a license and unlawfully infringe our intellectual property or commence actions seeking to establish the invalidity of the intellectual property rights of these technologies. This may have a material adverse effect on our business and results of operations.***

Our products include numerous patented standardized or proprietary technologies on which we depend. Despite the steps that we have taken to protect our technology investment with intellectual property rights, we cannot be certain that any rights or pending applications will be granted or that the rights granted in connection with any future patents or other intellectual property rights will be sufficiently broad to protect our technology. Third parties may infringe our intellectual property relating to our proprietary technologies or by ignoring their obligation to seek a license under our standard essential patents.

Any patents or other intellectual property rights that are granted to us may be challenged, invalidated or circumvented, and any right granted under our patents may not provide competitive advantages for us. Other companies have commenced and may continue to commence actions seeking to establish the invalidity of our intellectual property, for example, patent rights. In the event that one or more of our patents are challenged, a court may invalidate the patent or determine that the patent is not

**Table of Contents**

enforceable, which could harm our competitive position. Also, if any of our key patents are invalidated, or if the scope of the claims in any of these patents is limited by a court decision, we could be prevented from using such patents as a basis for product differentiation or from licensing the invalidated or limited portion of our intellectual property rights, or we could lose part of the leverage we have in terms of our own intellectual property rights portfolio. Even if such a patent challenge is not successful, it could be expensive and time-consuming, divert attention of our management and technical personnel from our business and harm our reputation. Any diminution of the protection that our own intellectual property rights enjoy could cause us to lose some of the benefits of our investments in research and development, which may have a negative effect on our business and results of operations. See Item 4B. [Business Overview](#) [Devices & Services](#) and [Location & Commerce](#) [Patents and Licenses](#) and [Nokia Siemens Networks](#) [Patents and Licenses](#) for a more detailed discussion of our intellectual property activities.

***Our ability to maintain and leverage our traditional strengths in the mobile product market may be impaired if we are unable to retain the loyalty of our mobile operator and distributor customers and consumers as a result of the implementation of our strategies or other factors.***

We have a number of competitive strengths that have historically contributed significantly to our sales and profitability. These include our scale, our differentiating brand, our world-class manufacturing and logistics system, the industry's largest distribution network and our strong relationships with our mobile operator and distributor customers. Going forward, these strengths are critical core competencies that we bring to the partnership with Microsoft and the implementation of our Windows Phone smartphone strategy. Our ability to maintain and leverage these strengths also continues to be important to our competitiveness in the feature phone market.

As discussed above, however, the Microsoft partnership and the adoption of Windows Phone as our primary smartphone platform are subject to certain risks and uncertainties. Several of those risks and uncertainties relate to whether our mobile operator and distributor customers and consumers will be satisfied with our current strategy and partnership with Microsoft going forward. If those risks materialize and mobile operator and distributor customers and consumers as a consequence reduce their support and purchases of our mobile products, this would reduce our market share and net sales and in turn may erode our scale, brand, manufacturing and logistics, distribution and customer relations. The erosion of those strengths would impair our competitiveness in the mobile products market and our ability to execute successfully our new strategy and to realize fully the expected benefits of the Microsoft partnership.

Also, as result of market developments, competitors' actions or other factors within or out of our control, we may not be able to maintain these competitive strengths that we have benefited from historically. It is also possible that such strengths or some of them become less relevant in the future or are replaced by other type of strengths required for future success in the mobile product market.

***If any of the companies we partner and collaborate with, including Microsoft and Accenture, were to fail to perform as planned or if we fail to achieve the collaboration or partnering arrangements needed to succeed, we may not be able to bring our mobile products or location-based or other services to market successfully or in a timely way.***

We are increasingly collaborating and partnering with third parties to develop technologies and products for our smartphones and feature phones. These arrangements involve the commitment by each party of various resources, including technology, research and development efforts, services and personnel. Today, mobile products are developed in an ecosystem of multiple partnerships with different industry participants where our ability to collaborate successfully with the right partners is critical to our success in creating and delivering mobile products that are preferred by our customers

## Table of Contents

and consumers. Although the objective of the collaborative and partnering arrangements is a mutually beneficial outcome for each party, our ability to introduce new mobile products that are commercially viable and meet our and our customers' and consumers' quality, safety, security and other standards successfully and on schedule could be hampered if, for example, any of the following risks were to materialize:

We fail to engage the right partners or on terms that are beneficial to us.

We are unable to collaborate and partner effectively with individual partners and simultaneously with multiple partners to execute and reach the targets set for the collaboration.

The arrangements with the parties we work with do not develop as expected, including their performance, delivery and timing, or include terms which prove unfavorable to us.

The technologies provided by the parties we work with are not sufficiently protected or infringe third parties' intellectual property rights in a way that we cannot foresee or prevent, or private information shared with partners is leaked.

The technologies or products or services supplied by the parties we work with do not meet the required quality, safety, security and other standards or customer needs.

Our own quality controls fail.

The financial condition of our collaborative partners deteriorates which may result in underperformance by the collaborative partners or insolvency or closure of the business of such partners.

Our increasing reliance on collaborative partnering for Nokia-branded or co-branded products may result in more variable quality due to our more limited control which may have a negative effect on our reputation and erode the value of the Nokia brand.

***If the limited number of suppliers we depend on fail to deliver sufficient quantities of fully functional products, components, sub-assemblies, software and services on favorable terms and in compliance with our supplier requirements, our ability to deliver our mobile products profitably, in line with quality requirements and on time could be materially adversely affected.***

Our manufacturing operations depend on obtaining sufficient quantities of fully functional products, components, sub-assemblies, software and services on a timely basis. Our principal supply requirements for our mobile products are for electronic components, mechanical components and software, which all have a wide range of applications in our products.

In some cases, a particular component may be available only from a limited number of suppliers or from a single supplier. In addition, our dependence on third-party suppliers has increased as a result of our strategic decisions to outsource certain activities, for example parts of our own chipset as well as wireless modems research and development, and to expand the use of commercially available chipsets and wireless modems. Suppliers may from time to time extend lead times, limit supplies, change their partner preferences, increase prices, have poor quality or be unable to increase supplies to meet increased demand due to capacity constraints or other factors, which could adversely affect our ability to deliver our mobile products on a timely basis. If we fail to anticipate customer demand properly, an over-supply or under-supply of components and production capacity could occur. In many cases, some of our competitors utilize the same contract manufacturers. If they have purchased capacity ahead of us, this could prevent us from acquiring the needed products, which could limit our ability to supply our customers or increase our costs. We also commit to certain capacity levels or component quantities which, if unused, will result in charges for unused capacity or scrapping costs. For example, in 2011 we recognized allowances for excess component inventory and future purchase





**Table of Contents**

commitments related to our Symbian devices, and may do so in the future. Additionally, with the increased bargaining power of other large manufacturers in the mobile device and electronics industry, we may not be able to achieve as favorable terms as in the past resulting in increased costs that we may not be able to pass on to our customers, as well as lapses in the availability of certain components, especially in situations of tight supply.

Moreover, a supplier may fail to meet our supplier requirements, such as, most notably, our and our customers' and consumers' product quality, safety, security and other standards. Consequently, some of our products may be unacceptable to us and our customers and consumers, or may fail to meet our quality controls. In case of issues affecting a product's safety or regulatory compliance, we may be subject to damages due to product liability, or defective products, components or services may need to be replaced or recalled. Also, some suppliers may not be compliant with local laws, including, among others, local labor laws. In addition, a component supplier may experience delays or disruption to its manufacturing processes or financial difficulties or even insolvency or closure of its business, in particular due to difficult economic conditions. Due to our high volumes, any of these events could delay our successful and timely delivery of products that meet our and our customers' and consumers' quality, safety, security and other requirements, or otherwise materially adversely affect our sales and results of operations or our reputation and brand value.

Possible consolidation among our suppliers could potentially result in larger suppliers with stronger bargaining power and limit the choice of alternative suppliers, which could lead to an increase in the cost, or limit the availability, of components that may materially adversely affect our sales and results of operations. The intensive competition among our suppliers and the resulting pressure on their profitability, as well as negative effects from shifts in demand for components and sub-assemblies, may result in the exit of certain suppliers from our industry and decrease the ability of some suppliers to invest in the innovation that is vital for our business. Our ability to source components efficiently and on terms favorable to us could also be adversely affected if component suppliers who also operate in the mobile device market choose to limit or cease the supply of components to other mobile device manufacturers, including us. Further, our dependence on a limited number of suppliers that require purchases in their home country foreign currency increases our exposure to fluctuations in the exchange rate between the euro, our reporting currency, and such foreign currency and, consequently, may increase our costs which we may not be able to pass on to our customers.

Many of the production sites of our suppliers are geographically concentrated, with a majority of our suppliers based in Asia. In the event that any of these geographic areas is affected by adverse conditions that disrupt production and/or deliveries from our suppliers, this could negatively affect our ability to deliver our products on a timely basis, which may materially adversely affect our business and results of operations.

***We may fail to manage our manufacturing, service creation and delivery as well as our logistics efficiently and without interruption, or fail to make timely and appropriate adjustments, or fail to ensure that our products meet our and our customers' and consumers' requirements and are delivered on time and in sufficient volumes.***

Our product manufacturing, service creation and delivery as well as our logistics are complex, require advanced and costly equipment and include outsourcing to third parties. These operations are continuously modified in an effort to improve efficiency and flexibility of our manufacturing, service creation and delivery as well as our logistics and to produce, create and distribute continuously changing volumes. We may experience difficulties in adapting our supply to meet the changing demand for our products, both ramping up and down production at our facilities as needed on a timely basis; maintaining an optimal inventory level; adopting new manufacturing processes; finding the most timely way to develop the best technical solutions for new products; managing the increasingly

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**Table of Contents**

complex manufacturing process for our high-end products, particularly the software for those products; adapting our manufacturing processes for the requirements of the Windows Phone platform and the production of Nokia products with Windows Phone; or achieving manufacturing efficiency and flexibility, whether we manufacture our products and create our services ourselves or outsource to third parties. We may also face challenges in retooling our manufacturing processes to accommodate the production of devices in smaller lot sizes to customize devices to the specifications of certain mobile networks operators or to comply with regional technical standards. Further, we may experience challenges in having our services and related software fully operational at the time they are made available to customers and consumers, including issues related to localization of the services to numerous markets and to the integration of our services with, for example, billing systems of network operators.

We have from time to time outsourced manufacturing of certain products and components to adjust our production to demand fluctuations as well as to benefit from expertise others have in the production of certain mobile technologies. For certain of our mobile products we use contract manufacturers to produce the entire product, which is subject to certain risks involving, for example, the choice of contract manufacturers, the need to change our mode of operation to work effectively and efficiently with such manufacturers and otherwise manage the complexities of such relationships to ensure that the products meet all of the required specifications.

We may also experience challenges caused by third parties or other external difficulties in connection with our efforts to modify our operations to improve the efficiency and flexibility of our manufacturing, service creation and delivery as well as our logistics, including, but not limited to, strikes, purchasing boycotts, public harm to the Nokia brand and claims for compensation resulting from our decisions on where to locate and how to utilize our manufacturing facilities, including the assembly and customization of our devices and products. Such difficulties may result from, among other things, delays in adjusting or upgrading production at our facilities, delays in expanding production capacity, failure in our manufacturing, service creation and delivery as well as logistics processes, failures in the activities we have outsourced, and interruptions in the data communication systems that run our operations. Such failures or interruptions could result in our products not meeting our and our customers' and consumers' quality, safety, security and other requirements, or being delivered late or in insufficient or excess volumes compared to our own estimates or customer requirements, which could have a material adverse effect on our sales, results of operations, reputation and the value of the Nokia brand.

By the end of 2012, we expect that most of our mobile products will be manufactured and assembled in Asia primarily at our manufacturing facilities, as well as those of our contract manufacturers. As a result, if that region or certain countries in that region are affected by adverse conditions that disrupt production and/or deliveries from our facilities or those of our contract manufacturers, this could negatively affect our ability to deliver our products on a timely basis, which may materially adversely affect our business and results of operations.

***Any actual or even alleged defects or other quality, safety and security issues in our products, including the hardware, software and content used in our products, could have a material adverse effect on our sales, results of operations, reputation and the value of the Nokia brand.***

Our products are highly complex, and defects in their design, manufacture and associated hardware, software and content have occurred and may occur in the future. Due to the very high production volumes of many of our mobile products, even a single defect in their design, manufacture or associated hardware, software and content may have a material adverse effect on our business. Our smartphones, in particular, incorporate numerous functionalities, feature computer-like and consumer electronics-like hardware and are powered by sophisticated software. This complexity and the need for

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**Table of Contents**

the seamless integration of the hardware, software and services elements and compatibility with other relevant technologies may also increase the risk of quality issues in our smartphones. Further, our mobile product portfolio is subject to continuous renewal which, particularly during periods of significant portfolio renewals, may increase the risk of quality issues related to our products, in particular in smartphones.

Defects and other quality issues may result from, among other things, failures in our own product and service creation and deliveries as well as manufacturing processes; failures of our suppliers to comply with our supplier requirements or failures in products and services created jointly with collaboration partners or other third parties where the development and manufacturing process is not fully in our control. Prior to shipment, quality issues may cause failures in ramping up the production of our products and shipping them to customers in a timely manner as well as related additional costs or even cancellation of orders by customers. After shipment, products may fail to meet marketing expectations set for them, may malfunction or may contain security vulnerabilities, and thus cause additional repair, product replacement, recall or warranty costs to us and harm our reputation. In case of issues affecting a product's safety, regulatory compliance including but not limited to privacy or security, we may be subject to damages due to product liability, and defective products, components or service offerings may need to be replaced or recalled. With respect to our services, quality issues may relate to the challenges in having the services fully operational at the time they are made available to our customers and consumers and maintaining them on an ongoing basis. The use of Location & Commerce's map data in our customers' products and services, including Nokia Maps in our mobile devices, involves a possibility of product liability claims and associated adverse publicity. Claims could be made by business customers if errors or defects result in a failure of their products or services, or by end-users of those products or services as a result of actual or perceived errors or defects in the map database. In addition, business customers may require us to correct defective data, which could be costly, or pay penalties if quality requirements or service level agreements are not satisfied.

We make provisions to cover our estimated warranty costs for our products. We believe that our provisions are appropriate, although the ultimate outcome may differ from the provided level which could have a positive or negative impact on our results of operations and financial condition.

Our mobile products and related accessories are also subject to counterfeiting activities in certain markets. Counterfeit products may erode our brand due to poor quality. Such activities may affect us disproportionately due to our brand recognition in various markets. Furthermore, our products are increasingly used together with hardware, software or service components that have been developed by third parties, whether or not we have authorized their use with our products. However, such components, such as batteries or software applications and content, may not be compatible with our products and may not meet our and our customers' and consumers' quality, safety, security or other standards. Additionally, certain components or layers that may be used with our products may enable them to be used for objectionable purposes, such as to transfer content that might be illegal, hateful or derogatory. The use of our products with incompatible or otherwise substandard hardware, software or software components, or for purposes that are inappropriate, is largely outside of our control and could harm the Nokia brand.

***Any cybersecurity breach or other factors leading to an actual or alleged loss, improper disclosure or leakage of any personal or consumer data collected by us or our partners or subcontractors, made available to us or stored in or through our products could have a material adverse effect on our sales, results of operations, reputation and value of the Nokia brand.***

Although we endeavor to develop products that meet the appropriate security standards, such as data protection, we or our products and online services and developer sites may be subject to breaches in our cybersecurity, including hacking, viruses, worms and other malicious software, unauthorized

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**Table of Contents**

modifications or illegal activities that may cause potential security risks and other harm to us, our customers or consumers and other end-users of our products. Cybersecurity concerns may affect us disproportionately due to our market position in mobile products, as hackers tend to focus their efforts on popular products. Due to the very high volumes of many of our mobile products, and the evolving nature of services and map data, such events or mere allegations of such events may have a material adverse effect on our business.

In connection with providing our products to our customers and consumers, certain customer feedback, information on consumer usage patterns and other personal and consumer data is collected and stored through our products, in particular with smartphones, either by the consumers or by us or our partners or subcontractors. Our developer sites may also require certain data to be provided by the developers. Loss, improper disclosure or leakage of any personal or consumer data collected by us or that is available to our partners or subcontractors, made available to us or stored in or through our products could result in liability to us and harm our reputation and brand. Moreover, if data held by a developer site is hacked or leaked, the developer may become unwilling to join or remain a part of our developer ecosystems. In addition, governmental authorities may use our products to access the personal data of individuals without our involvement, for example, through so-called lawful intercept capability of network infrastructure. Even perceptions that our products do not adequately protect personal or consumer data collected by us, made available to us or stored in or through our products or that they are being used by third parties to access personal or consumer data could impair our sales, results of operations, reputation and brand value.

***Our business and results of operations, particularly our profitability, may be materially adversely affected if we are not able to successfully manage the pricing of our products and costs related to our products and our operations.***

We need to introduce products in a cost-efficient and timely manner and manage proactively the costs and cost development related to our portfolio of products, including component sourcing, manufacturing, logistics and other operations. Historically, our market position and scale provided a significant cost advantage in many areas of our business, such as component sourcing, compared to our competitors, but our ability to leverage that advantage is now more limited. As well, we have benefited from the cost of components eroding more rapidly than the price erosion of our mobile products. Recently, however, component cost erosion has been generally slowing, a trend that adversely affected our profitability in 2010 and 2011, and may do so in the future. Currency fluctuations may also have an adverse impact on our ability to manage our costs relative to certain of our competitors who incur a material part of their costs in other currencies than we do. If we fail to maintain or improve our market position and scale compared to our competitors across the range of our products, as well as leverage our scale to the fullest extent, or if we are unable to develop or otherwise acquire software, applications and content cost competitively in comparison to our competitors, or if our costs increase relative to those of our competitors due to currency fluctuations, this could materially adversely affect our competitive position, business and results of operations, particularly our profitability.

We need to manage our operating expenses and other internal costs to maintain cost efficiency and competitive pricing of our products. Any failure by us to determine the appropriate prioritization of operating expenses and other costs, to identify and implement on a timely basis the appropriate measures to adjust our operating expenses and other costs accordingly, including the current measures to achieve targeted reductions in our operating expenses, or to maintain reductions could have a material adverse effect on our business, results of operations and financial condition. In particular, our profitability could be materially adversely affected as we transition from our royalty-free Symbian smartphone platform to the royalty-based Windows Phone platform if we are unable to offset our higher cost of sales resulting from our royalty payments to Microsoft with new revenue sources from the Microsoft partnership and a reduction in our operating expenses, particularly our research and development expenses.

**Table of Contents**

Our products are subject to price erosion, both naturally over their life cycle and as a result of various other factors, including increased price pressure. We have also in the past and may continue to increase the proportion of mobile products sold at lower prices to reach wider groups of consumers, particularly in our smartphones. Other factors that may adversely impact the selling price of our mobile devices include the extent to which consumers do not upgrade their mobile devices, postpone replacement or replace their current device with a lower-priced device and the extent to which our regional mix is weighted towards emerging markets where lower-priced products predominate. Moreover, some of our competitors may continue to reduce their prices resulting in significantly lower profit margins than is customary or sustainable on a long-term basis in this industry, which would lower the selling price of our devices if we chose for competitive reasons to lower our prices. Our inability to lower our costs at the same rate or faster than the price erosion of our mobile products could have a material adverse effect on our business and results of operations, particularly our profitability.

***Our net sales, costs and results of operations, as well as the US dollar value of our dividends and market price of our ADSs, are affected by exchange rate fluctuations, particularly between the euro, which is our reporting currency, and the US dollar, the Japanese yen and the Chinese yuan, as well as certain other currencies.***

We operate globally and are therefore exposed to foreign exchange risks in the form of both transaction risks and translation risks. Our policy is to monitor and hedge exchange rate exposure, and we manage our operations to mitigate, but not to eliminate, the impacts of exchange rate fluctuations. There can be no assurance, however, that our hedging activities will be successful in mitigating the impact of exchange rate fluctuations. In addition, significant volatility in the exchange rates may increase our hedging costs, as well as limit our ability to hedge our exchange rate exposure in particular against unfavorable movements in the exchange rates of certain emerging market currencies and could have an adverse affect on our results of operations, particularly our profitability. Further, exchange rate fluctuations may have an adverse affect on our net sales, costs and results of operations, as well as our competitive position. Exchange rate fluctuations may also make our pricing more difficult as our products may be re-routed by the distribution channels for sale to consumers in other geographic areas where sales can be made at more favorable exchange rates by those channels. Further, exchange rate fluctuations may also materially affect the US dollar value of any dividends or other distributions that are paid in euro as well as the market price of our ADSs. For a more detailed discussion of exchange risks, see Item 5A. Operating Results Certain Other Factors Exchange Rates and Note 34 of our consolidated financial statements included in Item 18 of this annual report.

***Our products include increasingly complex technologies, some of which have been developed by us or licensed to us by certain third parties. As a result, evaluating the rights related to the technologies we use or intend to use is more and more challenging, and we expect increasingly to face claims that we could have allegedly infringed third parties' intellectual property rights. The use of these technologies may also result in increased licensing costs for us, restrictions on our ability to use certain technologies in our products and/or costly and time-consuming litigation, which could have a material adverse effect on our business, results of operations and financial condition.***

Our products include increasingly complex technologies, some of which have been developed by us or licensed to us by certain third parties. As the amount of such proprietary technologies and the number of parties claiming intellectual property rights continues to increase, even within individual products, as the range of our products becomes more diversified and we enter new businesses, and as the complexity of the technology increases, the possibility of alleged infringement and related intellectual property claims against us continues to rise. The holders of patents and other intellectual property rights potentially relevant to our products may be unknown to us, may have different business models,

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**Table of Contents**

may refuse to grant licenses to their proprietary rights, or may otherwise make it difficult for us to acquire a license on commercially acceptable terms. There may also be technologies licensed to and relied on by us that are subject to alleged infringement or other corresponding allegations or claims by others which could impair our ability to rely on such technologies. In addition, although we endeavor to ensure that companies that work with us possess appropriate intellectual property rights or licenses, we cannot fully avoid the risks of intellectual property rights infringement created by suppliers of components and various layers in our products, or by companies with which we work in cooperative research and development activities. Similarly, we and our customers may face claims of infringement in connection with our customers' use of our products and such claims may also influence consumer behavior.

In many aspects the business models for mobile services are not yet established. The lack of availability of licenses for copyrighted content, delayed negotiations, or restrictive licensing terms may have a material adverse effect on the cost or timing of content-related services offered by us, mobile network operators or third-party service providers, and may also indirectly affect the sales of our mobile devices.

Since all technology standards, including those we use and rely on, include some intellectual property rights, we cannot fully avoid risks of a claim for infringement of such rights due to our reliance on such standards. We believe that the number of third parties declaring their intellectual property to be relevant to these standards, for example, the standards related to so-called 3G and 4G mobile communication technologies, as well as other advanced mobile communications standards, is increasing, which may increase the likelihood that we will be subject to such claims in the future. As the number of market entrants and the complexity of technology increases, it remains likely that we will need to obtain licenses with respect to existing and new standards from other licensors. While we believe that any such intellectual property rights declared or actually found to be essential to a given standard carry with them an obligation to be licensed on fair, reasonable and non-discriminatory terms, not all intellectual property owners agree on the meaning of that obligation and thus costly and time-consuming litigation over such issues has resulted and may continue to result in the future. While the rules of many standard setting bodies, such as the European Telecommunication Standards Institute, or ETSI, often apply on a global basis, the enforcement of those rules may involve national courts, which means that there may be a risk of different interpretation of those rules.

From time to time, some existing patent licenses may expire or otherwise become subject to renegotiation. The inability to renew or finalize such arrangements or new licenses with acceptable commercial terms may result in costly and time-consuming litigation, and any adverse result in any such litigation may lead to restrictions on our ability to sell certain products and could result in payments that potentially could have a material adverse effect on our operating results and financial condition. These legal proceedings may continue to be expensive and time-consuming and divert the efforts of our management and technical personnel from our business, and, if decided against us, could result in restrictions on our ability to sell our products, require us to pay increased licensing fees, substantial judgments, settlements or other penalties and incur expenses that could have a material adverse effect on our business, results of operations and financial condition.

Our patent license agreements may not cover all the future businesses that we may enter; our existing businesses may not necessarily be covered by our patent license agreements if there are changes in our corporate structure or in companies under our control; or our newly-acquired businesses may already have patent license agreements with terms that differ from similar terms in our patent license agreements. This may result in increased costs, restrictions to use certain technologies or time-consuming and costly disputes whenever there are changes in our corporate structure or in companies under our control, or whenever we enter new businesses or acquire new businesses.

Nokia Siemens Networks has access to certain licenses through cross-licensing arrangements with its current shareholders, Nokia and Siemens. If there are changes to Nokia Siemens Networks' corporate

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**Table of Contents**

structure which lead to a deconsolidation of Nokia Siemens Networks from Nokia, Nokia Siemens Networks may be unable to rely on some of its existing licenses. There can be no assurance that such licenses could be replaced on terms that are commercially acceptable.

We make accruals and provisions to cover our estimated total direct IPR costs for our products. The total direct IPR cost consists of actual payments to licensors, accrued expenses under existing agreements and provisions for potential liabilities. We believe that our accruals and provisions are appropriate for all technologies owned by others. The ultimate outcome, however, may differ from the provided level which could have a positive or negative impact on our results of operations and financial condition.

Any restrictions on our ability to sell our products due to expected or alleged infringements of third-party intellectual property rights and any intellectual property rights claims, regardless of merit, could result in material loss of profits, costly litigation, the payment of damages and other compensation, the diversion of the attention of our personnel, product shipment delays or the need for us to develop non-infringing technology or to enter into a licensing agreement. If licensing agreements were not available or are not available on commercially acceptable terms, we could be precluded from making and selling the affected products, or could face increased licensing costs. As new features are added to our products, we may need to acquire further licenses, including from new and sometimes unidentified owners of intellectual property. The cumulative costs of obtaining any necessary licenses are difficult to predict and may over time have a negative effect on our operating results. See Item 4B. Business Overview Devices & Services and Location & Commerce Patents and Licenses and Nokia Siemens Networks Patents and Licenses for a more detailed discussion of our intellectual property activities.

***Our sales derived from, and manufacturing facilities and assets located in, emerging market countries may be materially adversely affected by economic, regulatory, political or other developments in those countries or by other countries imposing regulations against imports to such countries.***

We generate sales from and have manufacturing facilities located in various emerging market countries. Sales from those countries represent a significant portion of our total sales and those countries represent a significant portion of any expected industry growth. By the end of 2012, we expect that most of our mobile products will be manufactured and assembled in emerging market countries, particularly in Asia. Accordingly, economic or political turmoil, military actions, labor unrest, public health and environmental issues or natural and man-made disasters in those countries could materially adversely affect the supply of mobile products and network infrastructure equipment manufactured in those countries, our sales and results of operations. In 2011, we witnessed political unrest in various markets where we do business, which adversely affected our sales in those markets, and any reoccurrence and escalation of such unrest could do so in the future.

Further, the economic conditions in emerging market countries may be more volatile than in developed countries and the purchasing power of our customers and consumers in those countries depends to a greater extent on the price development of basic commodities and currency fluctuations which may render our products too expensive to afford. Our business and investments in emerging market countries may also be subject to risks and uncertainties, including unfavorable or unpredictable taxation treatment, exchange controls, challenges in protecting our intellectual property rights, nationalization, inflation, currency fluctuations, or the absence of, or unexpected changes in, regulation as well as other unforeseeable operational risks. For example, Nokia Siemens Networks, as well as its competitors, were adversely affected in 2010 by the implementation of security clearance requirements in India which prevented the completion of product sales to customers, and could be similarly affected again in future periods, leading to ongoing uncertainty in that market. See Note 2 to our consolidated

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**Table of Contents**

financial statements included in Item 18 of this annual report for more detailed information on geographic location of net sales to external customers, segment assets and capital expenditures.

***Changes in various types of regulation, technical standards and trade policies as well as enforcement of such regulation and policies in countries around the world could have a material adverse effect on our business and results of operations.***

Our business is subject to direct and indirect regulation in each of the countries where we, the companies with which we work, and our customers do business. We develop many of our products based on existing regulations and technical standards, our interpretation of unfinished technical standards or there may be an absence of applicable regulations and standards. As a result, changes in various types of regulations, their application and trade policies applicable to current or new technologies or products may adversely affect our business and results of operations. For example, changes in regulation affecting the construction of base stations and other network infrastructure could adversely affect the timing and costs of new network construction or expansion and the commercial launch and ultimate commercial success of those networks. Export control, tariffs or other fees or levies imposed on our products and environmental, health, product safety and security, consumer protection and other regulations that adversely affect the export, import, pricing or costs of our products could also adversely affect our sales and results of operations. For example, copyright collecting societies in several member states of the EU as well as in several other countries claim that due to their capability to play and store copyrighted content, mobile devices should be subject to similar copyright levies that are charged for products such as compact disc, digital video disc or digital audio players. Any new or increased levies and duties could result in costs which lead to higher prices for our products, which may in turn impair their demand or decrease profitability if such costs cannot be passed to customers. In Brazil, consumer protection agencies are seeking to implement a requirement that certain mobile devices under warranty and claimed to be defective must be immediately replaced at the point of sale. If such measures are introduced, our costs in Brazil would increase. In addition, changes in various types of regulations or their application with respect to taxation or other fees collected by governments or governmental agencies may result in unexpected payments to be made by us, and in response to difficult global economic conditions there may be an increase in the aggressiveness of collecting such fees.

Our expansion into the provision of services, including the establishment of our Location & Commerce business, has resulted in a variety of new regulatory issues and subjects us to increased regulatory scrutiny. Moreover, our competitors have employed and will likely continue to employ significant resources to shape the legal and regulatory regimes in countries where we have significant operations. Legislators and regulators may make legal and regulatory changes or interpret and apply existing laws in ways that make our services less appealing to the end users, require us to incur substantial costs, change our business practices or prevent us from offering our services.

The impact of changes in or uncertainties related to regulation and trade policies could affect our business and results of operations adversely even though the specific regulations do not always directly apply to us or our products. In many parts of the world where we currently operate or seek to expand our business, local practices and customs may be contrary to our code of conduct and could violate anticorruption laws, including the US Foreign Corrupt Practices Act and the UK Bribery Act 2010. Our employees, or others who act on our behalf, could violate policies and procedures intended to promote compliance with anticorruption laws. Violations of these laws by our employees or others who act on our behalf, regardless of whether we participated in such acts or knew about such acts at certain levels of our organization, could subject us and our employees to criminal or civil enforcement actions, including fines or penalties, disgorgement of profits and suspension or disqualification from sales. Additionally, violations of law or allegations of violations may result in the loss of reputation and business. Detecting, investigating and resolving such situations may also result in significant costs,



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**Table of Contents**

including the need to engage external advisors, and consume significant time, attention and resources of our management. As a global company, we are subject to various legislative frameworks and jurisdictions that regulate fraud committed in the course of business operations and as such the extent and outcome of any proceedings is difficult to estimate. Further, our business and results of operations may be adversely affected by regulation and trade policies favoring the local industry participants as well as other measures with potentially protectionist objectives which host governments in different countries may take, particularly in response to difficult global economic conditions.

***We have operations in a number of countries and, as a result, face complex tax issues and could be obligated to pay additional taxes in various jurisdictions.***

We operate our business in a number of countries which involve different tax regimes and the application of rules related to taxation. Applicable taxes, VAT and social taxes for which we make provisions could increase significantly as a result of changes in applicable tax laws in the countries where we operate, the interpretation of those laws by local tax authorities or tax audits performed by local tax authorities. The impact of these factors is dependent on the types of revenue and mix of profit we generate in various countries; for instance, profits from sales of devices or services may have a different tax treatment. Tax losses recognized in deferred taxes are dependent on our ability to offset such tax losses against either other taxable income or future taxable income within the relevant tax jurisdiction. Tax losses recognized within deferred taxes are based on our assumptions for future taxable earnings and these may not occur as planned, which may cause the deferred tax asset to be reduced. There can be no assurances that an unexpected reduction in deferred tax assets will not occur. Any such reduction could have an adverse effect on us. Additionally, our earnings have been and may continue to be in the future unfavorably impacted by Nokia Siemens Networks taxes as no tax benefits are recognized for certain Nokia Siemens Networks deferred tax items. There may also be unforeseen tax expenses which may have an unfavorable impact on us. As a result and given the inherent unpredictable nature of taxation, there can be no assurance that the estimated long-term tax rate of Nokia will remain at current levels or that cash flows regarding taxes will be stable.

***Our operations rely on the efficient and uninterrupted operation of complex and centralized information technology systems and networks. If a system or network inefficiency, malfunction or disruption occurs, this could have a material adverse effect on our business and results of operations.***

Our operations rely on the efficient and uninterrupted operation of complex and centralized information technology systems and networks, which are integrated with those of third parties. All information technology systems are potentially vulnerable to damage, malfunction or interruption from a variety of sources. We pursue various measures in order to manage our risks related to system and network malfunction and disruptions, including the use of multiple suppliers and available information technology security. However, despite precautions taken by us, any malfunction or disruption of our current or future systems or networks such as an outage in a telecommunications network used by any of our information technology systems, or a breach of our cybersecurity, such as an attack by a virus or other event that leads to an unanticipated interruption or malfunction of our information technology systems or networks or data leakages, could have a material adverse effect on our brand image, business and results of operations. In addition, if we fail to successfully use our information technology systems and networks, our operational efficiency or competitiveness could be impaired which could have a material adverse effect on our business and results of operations. A disruption, for instance, in our mail, music and maps services, could cause significant discontent among users of our products resulting in claims or deterioration of our brand image.

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**Table of Contents**

***An unfavorable outcome of litigation could have a material adverse effect on our business, results of operations, financial condition and reputation.***

We are a party to lawsuits in the normal course of our business. Litigation can be expensive, lengthy and disruptive to normal business operations and divert the efforts of our management. Moreover, the results of complex legal proceedings are difficult to predict. An unfavorable resolution of a particular lawsuit could have a material adverse effect on our business, results of operations, financial condition and reputation.

We record provisions for pending litigation when we determine that an unfavorable outcome is probable and the amount of loss can be reasonably estimated. Due to the inherent uncertain nature of litigation, the ultimate outcome or actual cost of settlement may vary materially from estimates. We believe that our provisions for pending litigation are appropriate. The ultimate outcome, however, may differ from the provided level which could have a positive or negative impact on our results of operations and financial condition.

See Item 8A7. Litigation for a more detailed discussion about litigation that we are party to.

***Allegations of possible health risks from the electromagnetic fields generated by base stations and mobile devices, and the lawsuits and publicity relating to this matter, regardless of merit, could have a material adverse effect on our sales, results of operations, share price, reputation and brand value by leading consumers to reduce their use of mobile devices, by increasing difficulty in obtaining sites for base stations, by leading regulatory bodies to set arbitrary use restrictions and exposure limits, or by causing us to allocate additional monetary and personnel resources to these issues.***

There has been public speculation about possible health risks to individuals from exposure to electromagnetic fields from base stations and from the use of mobile devices. A substantial amount of scientific research conducted to date by various independent research bodies has indicated that these radio signals, at levels within the limits prescribed by safety standards set by, and recommendations of, public health authorities, present no adverse effect on human health. We cannot, however, be certain that future studies, irrespective of their scientific basis, will not suggest a link between electromagnetic fields and adverse health effects that could have a material adverse effect on our sales, results of operations, share price, reputation and brand value. Research into these issues is ongoing by government agencies, international health organizations and other scientific bodies in order to develop a better scientific and public understanding of these issues.

Over the past eleven years we have been involved in several class action matters alleging that Nokia and other manufacturers and cellular service providers failed to properly warn consumers of alleged potential adverse health effects and failed to include headsets with every handset to reduce the potential for alleged adverse health effects. All of those cases have been withdrawn or dismissed in relation to Nokia. In addition, Nokia and several other mobile device manufacturers and network operators were named in nine lawsuits by individual plaintiffs who allege that radio emissions from mobile devices caused or contributed to each plaintiff's brain tumor. A hearing on the admissibility of the plaintiffs proffered general causation evidence will likely occur in the third quarter of 2013.

Although Nokia products are designed to meet all relevant safety standards and recommendations globally, we cannot guarantee we will not become subject to product liability claims or be held liable for such claims or be required to comply with future regulatory changes in this area that could have a material adverse effect on our business. Even a perceived risk of adverse health effects of mobile devices or base stations could have a material adverse effect on us through a reduction in sales of mobile devices or increased difficulty in obtaining sites for base stations, and could have a material adverse effect on our sales, results of operations, share price, reputation and brand value.

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**Table of Contents**

**Nokia Siemens Networks**

In addition to the risks described above, the following are risks primarily related to Nokia Siemens Networks that could affect Nokia.

*Nokia Siemens Networks' new strategy to focus on mobile broadband and services and its restructuring plan designed to improve financial performance and competitiveness may not succeed in improving its overall competitiveness and profitability. Nokia Siemens Networks may be unable to execute the strategy effectively and in a timely manner, and it may be unable to otherwise continue to reduce operating expenses and other costs.*

In November 2011, Nokia Siemens Networks announced a new strategy, including changes to its organizational structure and an extensive global restructuring program, aimed at maintaining and developing Nokia Siemens Networks' position as one of the leaders in mobile broadband and services and improving its competitiveness and profitability. Planned changes include the introduction of a new business unit structure, the streamlining of certain central functions and a move to three customer operations sales clusters from two.

The plan includes a target to reduce Nokia Siemens Networks' annualized operating expenses and production overheads, excluding special items and purchase price accounting related items, by EUR 1 billion by the end of 2013, compared to the end of 2011. Together with a range of productivity and efficiency measures, Nokia Siemens Networks has targeted headcount reductions intended to align the workforce with the company's new strategy. Nokia Siemens Networks will also target areas such as real estate, information technology, product and service procurement costs, overall general and administrative expenses, and a significant reduction of suppliers in order to further lower costs and improve quality.

As the communications market continues to undergo significant changes, Nokia Siemens Networks' strategy to focus on mobile broadband infrastructure and services is subject to risks and uncertainties, including:

The market may develop in directions that leave Nokia Siemens Networks deficient in certain technologies and industry areas that impact its overall competitiveness.

Certain customers who currently buy services and products from Nokia Siemens Networks that are not regarded as core may choose to turn to alternative vendors to maintain end-to-end service from their suppliers.

Developing and implementing the new strategy and restructuring plan has consumed and will continue to consume significant time, attention, resources of management.

Personnel reductions may result in reduced productivity and dissatisfaction and loss of morale among employees and lead to loss of key personnel. These factors may have a more pronounced adverse impact due to Nokia Siemens Networks' prior restructuring measures. Although Nokia Siemens Networks has not experienced strikes in the past, it may face labor unrest, strikes or work stoppages as a result of increased dissatisfaction among its employees resulting from the ongoing and past restructuring measures.

There can be greater than expected difficulties from legal, regulatory or other matters that limit Nokia Siemens Networks' ability to implement the restructuring as planned or affecting the associated costs.

If Nokia Siemens Networks fails to implement its new strategy and restructuring plan successfully or to otherwise reduce its operating expenses and other costs on an ongoing basis, its market share may decline which could result in the loss of scale benefits and reduce competitiveness and its financial performance may deteriorate.

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**Table of Contents**

The costs, cash outflows and charges related to the implementation of the new strategy and restructuring plan, including the planned personnel reductions, may be greater than currently estimated.

Nokia Siemens Networks cannot guarantee that it will achieve or sustain the targeted benefits, which could result in further restructuring efforts. In addition, it cannot guarantee that the benefits, even if achieved, will be adequate to meet its long-term growth and profitability targets.

In addition, Nokia, Siemens and Nokia Siemens Networks have indicated that Nokia Siemens Networks is to become a more independent entity. There can be no assurances of the success of such intentions or the timing of such plans, nor can there be any assurance that the ownership of Nokia Siemens Networks will, or will not, change in the future or any new shareholder will provide any support to Nokia Siemens Networks.

***Nokia Siemens Networks sales and profitability depend on its success in the mobile broadband infrastructure services market, a key focus area in its new strategy. Nokia Siemens Networks may fail to effectively and profitably adapt its business and operations in a timely manner to the increasingly diverse service needs of its customers in that market.***

A key component of Nokia Siemens Networks' new strategy is the focus on the mobile broadband infrastructure services market, which it believes will be a key driver of sales and profitability. Nokia Siemens Networks' success in the services market is dependent on a number of factors, including adapting its policies and procedures to the additional emphasis on a services business model, recruiting and retaining skilled personnel, its ability to successfully develop market recognition of its business as a leading provider of software and service support in the mobile broadband infrastructure industry, and an ability to maintain efficient and low cost operations. Delays in implementing initiatives, further consolidation of Nokia Siemens Networks' customers, increased competition and other factors which Nokia Siemens Networks may not be able to anticipate may also affect its success in the services market.

If Nokia Siemens Networks is not successful in implementing its services business strategy and achieving the desired outcomes in a timely manner or if the mobile broadband services market fails to develop in the manner currently anticipated by Nokia Siemens Networks, its business will be more dependent on the traditional network systems product offering, which is increasingly characterized by equipment price erosion, maturing industry technology, intense price competition and non-recurring sales. If that occurs, and the current trends in the traditional network systems market continue, this could have a material adverse effect on our business, results of operations, particularly profitability, and financial condition.

***Competition in the mobile broadband infrastructure and related services market is intense. Nokia Siemens Networks may be unable to maintain or improve its market position or respond successfully to changes in the competitive environment.***

The competitive environment in the mobile and fixed networks infrastructure and related services market continues to be intense and is characterized by equipment price erosion, a maturing of industry technology and intense price competition. Moreover, mobile network operators cost reductions are reducing the amount of available business resulting in increased competition and pressure on pricing and profitability. Overall, participants in this market compete with each other on the basis of product offerings, technical capabilities, quality, service and price. Nokia Siemens Networks competes with companies that have larger scale and higher margins affording such companies more flexibility on pricing, while some competitors may have stronger customer finance possibilities due to internal policies or governmental support, for example in the form of trade guarantees, allowing them to offer products and services at very low prices or with attractive financing terms. Nokia Siemens Networks

**Table of Contents**

also faces increasing competition from competitors from China, which endeavor to gain market share for instance by leveraging their low-cost advantage in tenders for customer contracts. Competition for new communication service provider customers as well as for new infrastructure deployments is particularly intense and focused on price. In addition, new competitors may enter the industry as a result of acquisitions or shifts in technology. If Nokia Siemens Networks cannot respond successfully to the competitive requirements in the mobile infrastructure and related services market, our business and results of operations, particularly profitability, may be materially adversely affected.

Nokia Siemens Networks seeks to increase sales in geographic markets in which price competition is less intense. If Nokia Siemens Networks is not successful in increasing its sales in those markets or the price competition in those markets intensifies, as a result of the entry into those markets of low cost competitors, price reductions by existing competitors or otherwise, our business, sales, results of operations, particularly profitability, and financial condition may be materially adversely affected.

***Nokia Siemens Networks liquidity and its ability to meet its working capital requirements depend on access to available credit under Nokia Siemens Networks credit facilities and other credit lines as well as cash at hand. If a significant number of those sources of liquidity were to be unavailable, or cannot be refinanced when they mature, this would have a material adverse effect on our business, results of operations and financial condition.***

To provide liquidity and meet its working capital requirements, Nokia Siemens Networks is party to certain credit facilities and has arranged for other committed and uncommitted credit lines. Nokia Siemens Networks ability to draw upon those resources is dependent upon a variety of factors, including compliance with existing covenants, the absence of any event of default and, with respect to uncommitted credit lines, the lenders perception of Nokia Siemens Networks credit quality. The implementation of Nokia Siemens Networks new strategy and restructuring plan is expected to result in costs, cash outflows and charges. These will have a negative effect on Nokia Siemens Networks liquidity position and may be greater than currently estimated. The covenants under Nokia Siemens Networks existing credit facilities require it, among other things, to maintain a leverage ratio below a predetermined threshold. Nokia Siemens Networks ability to satisfy these and other existing covenants may be affected by events beyond its control and there can be no assurance that Nokia Siemens Networks will be able to comply with its existing covenants in the future. Any failure to comply with the covenants under any of Nokia Siemens Networks existing credit facilities may constitute a default under its other credit facilities and credit lines and may require Nokia Siemens Networks to either obtain a waiver from its creditors, renegotiate its credit facilities, raise additional financing from existing or new shareholders or repay or refinance borrowings in order to avoid the consequences of a default. There can be no assurance that Nokia Siemens Networks would be able to obtain such a waiver, to renegotiate its credit facilities, to raise additional financing from existing or new shareholders or to repay or refinance its borrowings on terms that are acceptable to it, if at all.

In addition, any failure by Nokia Siemens Networks to comply with its existing covenants, any actual or perceived decline in Nokia Siemens Networks business, results of operations or financial condition or other factors may result in a deterioration of lenders perception of Nokia Siemens Networks credit quality, which may negatively impact Nokia Siemens Networks ability to renegotiate its credit facilities, refinance its borrowings or to draw upon its uncommitted credit lines. Although Nokia Siemens Networks believes it has sufficient resources to fund its operations, if a significant number of those sources of liquidity were to be unavailable, or cannot be refinanced when they mature, this could have a material adverse effect on our business, results of operations and financial condition.

Nokia Siemens Networks has historically received financial support in the form of additional capital from its shareholders Nokia and Siemens. Nokia and Siemens do not, however, guarantee Nokia Siemens Networks current financial obligations. There is no assurance that Nokia Siemens Networks will receive similar or other financial support from its shareholders in the future.

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**Table of Contents**

***Nokia Siemens Networks may fail to effectively and profitably invest in new competitive products, services, upgrades and technologies and bring them to market in a timely manner.***

The mobile infrastructure and related services market is characterized by rapidly changing technologies, frequent new solutions requirements and product feature introductions and evolving industry standards.

Nokia Siemens Networks' success depends to a significant extent on the timely and successful introduction of new products, services and upgrades of current products to comply with emerging industry standards and to address competing technological and product developments carried out by Nokia Siemens Networks' competitors. The research and development of new and innovative technologically-advanced products, including the introduction of new radio frequency technologies, as well as upgrades to current products and new generations of technologies, is a complex and uncertain process requiring high levels of innovation and investment, as well as accurate anticipation of technology and market trends. Nokia Siemens Networks may focus its resources on technologies that do not become widely accepted or ultimately prove not to be viable. Nokia Siemens Networks' net sales and operating results will depend to a significant extent on its ability (i) to maintain a product portfolio and service capability that is attractive to its customers; (ii) to enhance its existing products; (iii) to continue to introduce new products successfully and on a timely basis; and (iv) to develop new or enhance existing tools for its services offerings.

Nokia Siemens Networks' failure to effectively and profitably invest in new products, services, upgrades and technologies and bring them to market in a timely manner could result in a loss of net sales and market share and could have a material adverse effect on our results of operations, particularly profitability and financial condition.

Nokia Siemens Networks also depends on its customers' perception of its technological strengths and weaknesses. For instance, in its perceived lack of end-to-end capabilities in areas such as intellectual property transformation and of innovation capabilities and integration into the innovation ecosystem may be seen as weaknesses. Nokia Siemens Networks' relatively small presence in the centers of innovation ecosystems in telecommunications may harm our perceived credibility in terms of innovation capability.

***Nokia Siemens Networks may be unable to execute successfully its strategy for the acquired Motorola Solutions wireless network infrastructure assets, including retaining existing customers of those acquired assets, cross-selling its products and services to customers of those acquired assets and otherwise realizing the expected synergies and benefits of the acquisition.***

In April 2011, Nokia Siemens Networks acquired the majority of the wireless network infrastructure assets of Motorola Solutions which expanded its operations by adding new products and services, new customer relationships and approximately 6 900 employees.

The integration of the acquired Motorola Solutions assets is now largely complete. However, there are certain risks related to realizing the expected synergies and benefits of the acquisition, including the following:

Existing customers of the acquired Motorola Solutions assets may be reluctant, unwilling or unable to maintain their customer relationship with Nokia Siemens Networks.

The markets for the acquired Motorola Solutions assets do not evolve as anticipated and the technologies acquired do not prove to be those needed to be successful in those markets.

## **Table of Contents**

Nokia Siemens Networks may not successfully access the existing markets of the acquired Motorola Solutions assets due to a lack of requisite capabilities, regulatory reasons or otherwise.

Nokia Siemens Networks may not realize the expected expansion of its customer base or successfully cross-sell its products and services to customers of the acquired Motorola Solutions assets.

Nokia Siemens Networks may lose key employees of the acquired Motorola Solutions assets.

There may be delays in the full implementation of Nokia Siemens Networks policies, controls, procedures, information technology systems and other business processes with respect to the acquired Motorola Solutions assets.

Unexpected contingent or undisclosed liabilities may have been acquired with the acquired Motorola Solutions assets and agreed indemnities may provide insufficient coverage against such liabilities.

Impairments of goodwill as a result of the acquisition could arise.

***The networks infrastructure and related services business relies on a limited number of customers and large multi-year contracts. Unfavorable developments under such a contract or in relation to a major customer may have a material adverse effect on our business, results of operations and financial condition.***

Large multi-year contracts, which are typical in the networks infrastructure and related services business, include a risk that the timing of sales and results of operations associated with those contracts will differ from what was expected when the contracts were entered into. Moreover, such contracts often require the dedication of substantial amounts of working capital and other resources, which may negatively affect Nokia Siemens Networks' cash flow, particularly in the early stages of a contract, or may require Nokia Siemens Networks to sell products and services in the future that would otherwise be discontinued, thereby diverting resources from developing more profitable or strategically important products and services. Any non-performance by Nokia Siemens Networks under those contracts may have a material adverse effect on us because network operators have demanded and may continue to demand stringent contract undertakings, such as penalties for contract violations.

The networks infrastructure and related services business is also dependent on a limited number of customers and consolidation among those customers is continuing. In addition, network operators are increasingly entering into network sharing arrangements, which further reduce the number of networks available for Nokia Siemens Networks to service. As a result of this trend and the intense competition in the industry, Nokia Siemens Networks may be required to provide contract terms increasingly favorable to the customer to remain competitive. Any unfavorable developments in relation to or any change in the contract terms applicable to a major customer may have a material adverse effect on our business, results of operations and financial condition.

***Providing customer financing or extending payment terms to customers can be a competitive requirement in the networks infrastructure and related services business and may have a material adverse effect on our business, results of operations and financial condition.***

Communication service providers in some markets may require their suppliers, including Nokia Siemens Networks, to arrange, facilitate or provide financing in order to obtain sales or business. They may also require extended payment terms. In some cases, the amounts and duration of these financings and trade credits, and the associated impact on Nokia Siemens Networks' working capital, may be significant. In response to the tightened credit markets, requests for customer financing and extended payment terms have continued on the same level in terms of volume and scope since 2009.

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**Table of Contents**

Recent turmoil in the financial markets may result in more customer financing requests. While the amount of financing Nokia Siemens Networks provided directly to its customers in 2011 remained at approximately the same level as in 2010, as a strategic market requirement Nokia Siemens Networks primarily arranged and facilitated, and plans to continue to arrange and facilitate, financing to a number of customers, typically supported by export credit or guarantee agencies. In the event that those agencies face future constraints in their ability or willingness to provide financing to Nokia Siemens Networks' customers, it could have a material adverse effect on our business. Nokia Siemens Networks has agreed to extended payment terms for a number of customers, and it will continue to do so. Extended payment terms may continue to result in a material aggregate amount of trade credits. Even when the associated risk is mitigated by the fact that the portfolio relates to a variety of customers, defaults in the aggregate could have a material adverse effect on us.

Nokia Siemens Networks cannot guarantee that it will be successful in arranging, facilitating or providing needed financing, including extended payment terms to customers, particularly in difficult financial market conditions. In addition, certain of Nokia Siemens Networks' competitors may have greater access to credit financing than Nokia Siemens Networks, which could adversely affect Nokia Siemens Networks' ability to compete successfully for business in the networks infrastructure and, indirectly, in the related services sectors. Nokia Siemens Networks' ability to manage its total customer finance and trade credit exposure depends on a number of factors, including its capital structure, market conditions affecting its customers, the level and terms of credit available to Nokia Siemens Networks and to its customers, the cooperation of export credit or guarantee agencies and its ability to mitigate exposure on acceptable terms. Nokia Siemens Networks may not be successful in managing the challenges associated with the customer financing and trade credit exposure that it may have from time to time. While defaults under financings, guarantees and trade credits to Nokia Siemens Networks' customers resulting in impairment charges and credit losses have not been a significant factor for us, these may increase in the future, and commercial banks may not continue to be able or willing to provide sufficiently long-term financing, even when backed by export credit agency guarantees, due to their own liquidity constraints. See Item 5B. Liquidity and Capital Resources Structured Finance, and Note 34(b) to our consolidated financial statements included in Item 18 of this annual report for a more detailed discussion of issues relating to customer financing, trade credits and related commercial credit risk.

Nokia Siemens Networks has used the sale of receivables to banks, other financial institutions or back to customers to improve its liquidity, and any significant change in the ability of Nokia Siemens Networks to continue this practice could impair its liquidity.

***Some of the Siemens carrier-related operations transferred to Nokia Siemens Networks have been and continue to be the subject of various criminal and other governmental investigations related to whether certain transactions and payments arranged by some current or former employees of Siemens were unlawful. As a result of those investigations, government authorities and others have taken and may take further actions against Siemens and/or its employees that may involve and affect the assets and employees transferred by Siemens to Nokia Siemens Networks, or there may be undetected additional violations that may have occurred prior to the transfer or violations that may have occurred after the transfer of such assets and employees.***

Public prosecutors and other government authorities in several jurisdictions have conducted and in some jurisdictions continue to conduct criminal and other investigations related to whether certain transactions and payments arranged by some current or former employees of Siemens relating to the carrier-related operations for fixed and mobile networks that were transferred to Nokia Siemens Networks were unlawful. These investigations are part of substantial transactions and payments involving Siemens' former Com business and other Siemens business groups which remain under investigation.



**Table of Contents**

The internal review by Nokia Siemens Networks and Nokia is complete. Siemens has informed us that its own investigation is also complete. Although the investigations by the German and United States governments were concluded and resolved in December 2008, investigations in other countries continue, as well as individual investigations of Siemens employees and other individuals. Accordingly, until these investigations are complete and the matters are finally resolved, it is not possible to ensure that Siemens employees who may have been involved in the alleged violations of law were not transferred to Nokia Siemens Networks. Nor is it possible to predict the extent to which there may be as yet undetected additional violations of law that occurred prior to the transfer that could result in additional investigations or actions by government authorities. Such actions have, and could include criminal and civil fines, tax liability, as well as other penalties and sanctions. To date, none of the substantial fines imposed on Siemens by regulators in Germany and the United States has applied to Nokia Siemens Networks or Nokia. It is also not possible to predict whether there have been any ongoing violations of law after the formation of Nokia Siemens Networks involving the assets and employees of the Siemens carrier-related operations that could result in additional actions by government authorities. The development of any of these situations could have a material adverse effect on Nokia Siemens Networks and our reputation, business, results of operations and financial condition. In addition, detecting, investigating and resolving such situations have been, and might continue to be, expensive and consume significant time, attention and resources of Nokia Siemens Networks and our management, which could harm our business and that of Nokia Siemens Networks.

The government investigations may also harm Nokia Siemens Networks' relationships with existing customers, impair its ability to obtain new customers, business partners and public procurement contracts, affect its ability to pursue strategic projects and transactions or result in the cancellation or renegotiation of existing contracts on terms less favorable than those currently existing or affecting its reputation. Nokia Siemens Networks has terminated relationships, originated in the Siemens carrier-related operations, with certain business consultants and other third-party intermediaries in some countries as their business terms and practices were contrary to Nokia Siemens Networks' Code of Conduct, thus foregoing business opportunities. It is not possible to predict the extent to which other customer relationships and potential business may be affected by Nokia Siemens Networks' efforts to comply with applicable regulations. Nokia Siemens Networks may also be joined to civil litigation brought by third-parties against Siemens carrier-related operations.

Siemens has agreed to indemnify Nokia and Nokia Siemens Networks for any government fines or penalties and damages from civil law suits incurred by either Nokia Siemens Networks or us, resulting from violations of law in the Siemens carrier-related operations that occurred prior to the transfer to Nokia Siemens Networks. Siemens has also agreed, in certain circumstances and subject to the fulfillment of certain criteria, to reimburse up to 50% of any lost profit suffered by Nokia Siemens Networks as a result of the violations of law in the Siemens carrier-related operations that occurred prior to the transfer to Nokia Siemens Networks.

We cannot predict with any certainty the final outcome of the ongoing investigations related to this matter, when and the terms upon which such investigations will be resolved, which could be a number of years, or the consequences of the actual or alleged violations of law on our or Nokia Siemens Networks' business, including its relationships with customers.

**ITEM 4. INFORMATION ON THE COMPANY****4A. History and Development of the Company**

Nokia is a global leader in mobile communications whose products have become an integral part of the lives of people around the world. Every day, more than 1.3 billion people use their Nokia to capture and share experiences, access information, find their way or simply to speak to one another. Nokia's

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## **Table of Contents**

technological and design innovations have made its brand one of the most recognized in the world. Nokia Siemens Networks, jointly owned by Nokia and Siemens, is one of the leading global providers of telecommunications infrastructure hardware, software and services.

For 2011, our net sales were EUR 38.7 billion (USD 50.2 billion), and we had an operating loss of EUR 1.1 billion (USD 1.4 billion). At the end of 2011, we employed 130 050 people, of which 73 686 were employed by Nokia Siemens Networks.

We operate a global network of production facilities for mobile products and network infrastructure in eight countries, as well as a global network of sales, customer service and other operational units. For mobile products, we have sales in more than 160 countries. Nokia has made significant investments into research and development and has been one of the leading innovators in the industry over the past two decades. For mobile products, we operate several major research and development and software development facilities, with key sites in China, Finland, Germany and the United States.

## **History**

During our 147 year history, Nokia has evolved from its origins in the paper industry to become a world leader in mobile communications. Today, Nokia brings mobile products and services to more than one billion people from virtually every demographic segment of the population.

The key milestones in our history are as follows:

In 1967, we took our current form as Nokia Corporation under the laws of the Republic of Finland. This was the result of the merger of three Finnish companies: Nokia AB, a wood-pulp mill founded in 1865; Finnish Rubber Works Ltd, a manufacturer of rubber boots, tires and other rubber products founded in 1898; and Finnish Cable Works Ltd, a manufacturer of telephone and power cables founded in 1912.

We entered the telecommunications equipment market in 1960 when an electronics department was established at Finnish Cable Works to concentrate on the production of radio-transmission equipment.

Regulatory and technological reforms have played a role in our success. Deregulation of the European telecommunications industries since the late 1980s stimulated competition and boosted customer demand.

In 1982, we introduced the first fully-digital local telephone exchange in Europe, and in that same year we introduced the world's first car phone for the Nordic Mobile Telephone analog standard.

The technological breakthrough of GSM, which made more efficient use of frequencies and had greater capacity in addition to high-quality sound, was followed by the European resolution in 1987 to adopt GSM as the European digital standard by July 1, 1991.

The first GSM call was made with a Nokia phone over the Nokia-built network of a Finnish operator called Radiolinja in 1991, and in the same year Nokia won contracts to supply GSM networks in other European countries.

In the early 1990s, we made a strategic decision to make telecommunications our core business, with the goal of establishing leadership in every major global market. Basic industry and non-telecommunications operations including paper, personal computer, rubber, footwear, chemicals, power plant, cable, aluminum and television businesses were divested during the period from 1989 to 1996.

## **Table of Contents**

Mobile communications evolved rapidly during the 1990s and early 2000s, creating new opportunities for devices in entertainment and enterprise use. This trend where mobile devices increasingly support the features of single-purposed product categories such as music players, cameras, pocketable computers and gaming consoles is often referred to as digital convergence.

In recent years, we have supported the development of our services and software capabilities with acquisitions of key technologies, content and expertise. For example, in 2008 we acquired NAVTEQ, a leading provider of comprehensive digital map information and related location-based content and services. Now as part of our Location & Commerce business, NAVTEQ continues to play a pivotal role in the development of our location-based services offering both in terms of its provision of content and as a business-to-business provider of map data. More recently, acquisitions have included Novarra, whose technology has formed the basis of a new, more powerful mobile browser available for our latest feature phones.

As part of our efforts to concentrate on services that we believe are core to our offering, we have also made disposals, including the sale in 2010 of our wireless modem business to Renesas Electronics Corporation as part of a strategic business alliance between the two companies to develop modem technologies for HSPA+/LTE (Evolved High-Speed Packet Access / Long-Term Evolution) and its evolution.

In early 2011, we announced and began implementing a new strategy for our Devices & Services business, including our partnership with Microsoft to build a new global mobile ecosystem with Windows Phone serving as our primary smartphone platform and changes to our leadership team and operational structure, with the aim of accelerating speed of execution in the intensely competitive mobile products market.

Nokia Siemens Networks began operations on April 1, 2007. The company, jointly owned by Nokia and Siemens AG and consolidated by Nokia, combined Nokia's networks business and Siemens' carrier-related operations for fixed and mobile networks. In network infrastructure, Nokia Siemens Networks acquired the majority of the wireless network infrastructure assets of Motorola Solutions in April 2011.

In November 2011, Nokia Siemens Networks announced and began implementing a new strategy and restructuring plan to focus on mobile broadband and services.

### **Organizational Structure and Reportable Segments**

We have three businesses: Devices & Services, Location & Commerce and Nokia Siemens Networks, and four operating and reportable segments for financial reporting purposes: Smart Devices and Mobile Phones within our Devices & Services business, Location & Commerce and Nokia Siemens Networks.

We adopted our current operational structure during 2011. Smart Devices and Mobile Phones focus on the areas of smartphones and mass market feature phones, respectively, while Location & Commerce, which was formed by combining NAVTEQ with our Devices & Services social location services operations, focuses on the development of location-based services and local commerce. Each unit has profit-and-loss responsibility and end-to-end accountability for the full consumer experience, including product development, product management and product marketing.

Nokia Siemens Networks, jointly owned by Nokia and Siemens and consolidated by Nokia, is one of the leading global providers of telecommunications infrastructure hardware, software and services. Focusing on innovation and sustainability, Nokia Siemens Networks currently provides a complete portfolio of mobile, fixed and converged network technology, as well as professional services including

## **Table of Contents**

managed services, consultancy and systems integration, deployment and maintenance. In November 2011, Nokia Siemens Networks announced and began implementing a new strategy and restructuring plan to focus on mobile broadband and services.

For a breakdown of our net sales and other operating results by category of activity and geographical location in 2011, see Item 5 and Note 2 to our consolidated financial statements included in Item 18 of this annual report.

### **Other**

We primarily invest in research and development, sales and marketing and building the Nokia brand. During 2012, we currently expect the amount of capital expenditure, excluding acquisitions, to be approximately EUR 650 million, and to be funded from our cash flow from operations. During 2011, our capital expenditures, excluding acquisitions, totaled EUR 597 million, compared with EUR 679 million in 2010. For further information regarding capital expenditures see Item 5A. *Operating Results* and for a description of capital expenditures by our reportable segments see Note 2 to our consolidated financial statements included in Item 18 of this annual report.

We maintain listings on two major securities exchanges. The listing venues for our shares are NASDAQ OMX Helsinki, in the form of shares, and the New York Stock Exchange, in the form of American Depositary Shares. Nokia has decided to delist its shares from the Frankfurt Stock Exchange, and the final day of trading will be March 16, 2012.

Our principal executive office is located at Keilalahdentie 4, P.O. Box 226, FI-00045 Nokia Group, Espoo, Finland and our telephone number is +358 (0) 7 1800-8000.

### **4B. Business Overview**

The following discussion of our three businesses reflects our operational structure adopted during 2011, as described above and the regrouping of prior periods for comparability purposes. It should be read in conjunction with Item 3D. *Risk Factors* and *Forward-Looking Statements*.

#### **Devices & Services and Location & Commerce**

##### ***Market Overview***

Communication with a mobile device has become an integral part of the lives of people around the world. Since the early 1990s, mobile telecommunications penetration has grown rapidly, and today billions of people own a mobile device. Over the same period, what people can do with their mobile device has also undergone fundamental change. The development of more capable and smaller processors and the emergence of the mobile device as a single alternative to an array of one-purpose products such as music players, cameras and pocketable computers have combined with the growth of the Internet and more sophisticated network infrastructure to make mobile devices powerful, must-have consumer products. Demand has also grown for larger handheld Internet-centric computing devices, such as tablets and e-readers, which trade off pocketability for larger screen sizes. Such devices offer access to the Internet over WiFi and cellular networks and, like more conventional mobile products, are increasingly offered in combination with an operator data plan which gives the user unlimited or a predefined amount of access to the Internet using their device. The growing significance of the Internet in communication has meant that the mobile telecommunication, computing, consumer electronics and Internet industries are increasingly converging to form a broader industry encompassing Internet-connected products of varying shapes and sizes.

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**Table of Contents**

With respect to conventional mobile devices, it is still commonplace for the market to be characterized in terms of feature phones – also sometimes called mobile phones – and smartphones. The distinction between these two classes of mobile products is typically rooted in their differing capabilities in terms of software and hardware, the opportunities they provide for third-party application development, the richness of the experience they offer and the volume of data they process. Historically, feature phones have been primarily used for calling and text messaging, while smartphones – with the aid of their more capable operating systems and greater computing power – have provided opportunities to access the Internet, navigate, record high-definition video, take high-resolution photographs, share media, play video games and more. Today, however, the distinction between these two classes of products is blurring. Increasingly, basic feature phone models, supported by innovations in both hardware and software, are also providing people with the opportunity to access the Internet and applications and, on the whole, offering them a more smartphone-like experience.

Whether smartphones or feature phones, mobile devices geared for Internet access and their accompanying Internet data plans are also becoming increasingly affordable and, consequently, they are becoming attractive to a broader range of consumer groups and geographic markets. A notable recent development has been the increased affordability of devices based on the Android platform, which has enabled some vendors to offer smartphones for below EUR 100, excluding taxes and subsidies, and thus address a portion of the market which has been dominated by more basic feature phone offerings. While developed and controlled by Google, Android is made available to others free of charge and a significant part of the source code is available as open source software, which has made entry and expansion in the smartphone market easier for a number of hardware manufacturers which have chosen to join Android’s ecosystem. Users of Android-based devices can access and download applications from the Android Market application store run by Google, so many companies deploying Android have focused their software development efforts around a few elements of the user interface they have the ability to shape as well as focused on exploring new hardware form factors, such as tablets, as they seek to differentiate their offering from that of their competitors also using Android, as well as that of competitors using alternative operating systems, including Nokia. However, in general, we believe product differentiation for Android-based products is challenging, leading to increased commoditization of those devices. We also believe that there is increasing fragmentation in the Android ecosystem, meaning that increasing custom versions of the software could weaken interoperability of applications within that ecosystem.

Other major platforms include iOS, a system developed by Apple and deployed on its popular high-end iPhone models, and Blackberry OS, an operating system developed by Research in Motion (RIM) and deployed on its messaging-focused Blackberry smartphones. Both Apple and RIM have developed their own application stores through which users of their products can access applications. Apple has also enjoyed success with its iOS-powered iPad tablets, which has helped further grow the Apple ecosystem. Microsoft’s Windows Phone, which we have chosen as our primary smartphone platform and which is also deployed by others, is a relatively new entrant into the market in its current form. Users of Windows Phone products are served by the Windows Marketplace application store. While we transition to Windows Phone, we are also continuing to ship smartphones based on the Symbian platform. Users of Symbian devices are served by the Nokia Store application store.

Each smartphone platform is based on different technologies and accompanied by its own set of tools with which developers can develop applications. The ease of developing for a platform as well as the potential size of the addressable market and business opportunity are important factors developers and other industry participants – such as hardware manufacturers, software providers, publishers, entertainment providers, advertisers and e-commerce specialists – consider when deciding where to focus their resources. We believe that, particularly in the smartphone and tablet segments, success for manufacturers is now primarily shaped by their ability to build, catalyze or be part of a competitive ecosystem where these different industry participants are forming increasingly large communities of

## **Table of Contents**

mutually beneficial partnerships in order to bring their offerings to market. A vibrant ecosystem creates value for consumers, giving them access to a rich and broad range of user experiences. Ecosystems in the smartphone segment include those based around software platforms such as iOS, Android and Windows Phone, Symbian, as well as Blackberry OS.

The emergence of ecosystems has also impacted the mobile device market in other ways. For instance, their growing significance has further reinforced the importance of product design as a means for differentiating offerings from others within the same or a different ecosystem. Additionally, together with the growth of cloud computing where data and services are hosted by remote servers rather than on devices themselves ecosystems are also leading some vendors to pursue a strategy of developing and providing devices and electronic products of different form factors and screen sizes such as mobile devices, tablets and televisions and software which make them compatible and support their seamless interaction with one another. As consumers acquire different devices, some may choose to purchase products and services from only one ecosystem or vendor.

In the feature phone market, other ecosystems have emerged, including that based around Nokia's own Series 40 feature phone operating system. A growing number of developers are writing Java-based applications for Series 40 which, together with applications and content for Nokia's Symbian and MeeGo devices, are available through Nokia Store. Another ecosystem is that based around mobile solutions chipsets from low-cost reference design chipset manufacturers which have enabled the very rapid and low-cost production of feature phones by numerous manufacturers in China and India, which are gaining significant market share in emerging markets, as well as bringing some locally relevant innovations to market.

### ***Strategy***

Nokia's strategy to generate sustainable long-term growth is centered on the creation of great mobile products. We create products for virtually every demographic and every geography worldwide. Our strategy has three core elements: (i) to win in smartphones; (ii) to connect the next billion to the Internet and information, especially in key emerging markets; and (iii) to continue to invest in future disruptions through long-term exploratory research into the future of mobility and computing. We outlined this new strategy in February 2011 in conjunction with the announcement of changes to our leadership team and operational structure which are designed to accelerate our speed of execution.

In connection with the implementation of our new strategy, we have announced a number of changes to our operations affecting personnel, including substantial personnel reductions in different parts of the company, and resulting in the closure and planned closure and reconfiguration of certain Nokia facilities. See Production below. See also: Item 5A. Operating Results Principal Factors & Trends Affecting our Results of Operations Operational Efficiency and Cost Control.

### ***Smart Devices***

Our Smart Devices business unit focuses on the area of smartphones and smart devices and has profit-and-loss responsibility and end-to-end accountability for the full consumer experience, including product development, product management and product marketing. Nokia's portfolio of smartphones covers price points ranging from around EUR 100 to more than EUR 500, excluding taxes and subsidies. During 2011, we shipped approximately 77.3 million smartphones.

In February 2011, we announced our partnership with Microsoft to bring together our respective complementary assets and expertise to build a new global mobile ecosystem for smartphones. The partnership, under which we are adopting and licensing Windows Phone from Microsoft as our primary smartphone platform, was formalized in April 2011.

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**Table of Contents**

While Microsoft is continuing to license Windows Phone to other mobile manufacturers, the Microsoft partnership is providing us with opportunities to innovate and customize on the Windows Phone platform, such as in imaging and location-based services where we are a market leader, with a view to differentiating Nokia smartphones from those of our competitors which also use the Windows Phone platform. We are contributing our expertise on hardware, design and language support, and plan to bring Windows Phone to a broad range of price points, market segments and geographies. We and Microsoft are closely collaborating on joint marketing initiatives and a shared development roadmap to align on the future evolution of mobile products. The goal for both partners is that by bringing together our complementary assets in search, maps, location-based services, e-commerce, social networking, entertainment, unified communications and advertising, we can jointly create an entirely new consumer proposition. We are also bringing together our developer ecosystem activities to accelerate developer support for the Windows Phone platform on Nokia devices.

In October 2011, we launched the Nokia Lumia 800 and Nokia Lumia 710, our first products based on the Windows Phone platform. Our Lumia range is designed to bring consumers attractive industrial design in different colors, a fast social and Internet experience, leading imaging capabilities and signature Nokia experiences optimized for Windows Phone, such as Nokia Drive, our turn-by-turn voice-guided drive navigation application. The Nokia Lumia 800, which features a 3.7 inch AMOLED ClearBlack curved display, went on sale to consumers in six major European markets during November 2011, with a retail price of approximately EUR 420, excluding taxes and subsidies. Towards the end of 2011, we also started selling both the Nokia Lumia 800 and Nokia Lumia 710 in Hong Kong, India, Russia, Singapore and Taiwan. The Nokia Lumia 710, which features a different design, retails for approximately EUR 270, excluding taxes and subsidies.

Since the start of 2012, we have continued to bring the Lumia experience to several more geographies. For example, we launched the Nokia Lumia 900 in the United States, our third Windows Phone product and first LTE device designed specifically for the North American market, available exclusively through AT&T. In late February 2012, we announced our intention to bring the Lumia 900 to other markets outside the United States and introduced the Lumia 610, our lowest cost Lumia smartphone to date. These initial Lumia products represent the first significant step in our efforts to regain smartphone leadership.

While we transition to Windows Phone, we expect to continue to ship Symbian devices in specific regions and distribution channels, as well as to continue to provide software support to our Symbian customers, through 2016. During 2011, we made significant changes to our research and development operations for smartphones to reflect our new strategy. These changes included personnel reductions as well as the transfer of approximately 2 300 employees to Accenture as part of an agreement in which Accenture is providing Symbian software development and support activities to Nokia through 2016. We brought seven Symbian devices to market during 2011, three of which are powered by Belle, the latest version of the Symbian software. Belle brings a major improvement to the user experience, including single-tap NFC (near field communication) technology sharing and pairing and a more powerful mobile web browsing experience. In late February 2012, we also announced the Belle-powered Nokia 808 PureView, our most capable imaging device to date. The Nokia 808 PureView has a four inch screen, HD video recording and playback, and Dolby Digital for 5.1 channel Dolby Digital Surround Sound.

During 2011, we also launched the Nokia N9, the outcome of efforts in our MeeGo program. Made available to consumers in the fourth quarter 2011, the Nokia N9 is a pure touch smartphone which introduces an innovative new design where the home key typically located at the bottom of the device is replaced by a simple swipe gesture. Under our new strategy, MeeGo has become an open-source, mobile operating system project with an emphasis on longer-term market exploration of next-generation devices, platforms and user experiences. We aim to bring a variety of innovations that emerge from our MeeGo program as well as learnings from the Nokia N9 to future products.

## **Table of Contents**

Smart Devices has dedicated research and development teams addressing our short to medium-term needs in product development. To support the execution of our new strategy, we are working to ensure that each of our research and development sites for our smartphones has a clear focus and that there is greater co-location of our teams. The major Smart Devices R&D sites are in Beijing in China, San Diego in the United States and in Salo, Tampere and Greater Helsinki in Finland. The majority of the Windows Phones team, including most of our Windows Phone engineering team, is based at our research and development sites in Finland.

### ***Mobile Phones***

Our Mobile Phones business unit focuses on the area of mass market feature phones and related services and applications and has profit-and-loss responsibility and end-to-end accountability for the full consumer experience, including development, management and marketing of feature phone products, services and applications. Nokia's portfolio of feature phones covers a wide range of price points from the Nokia 100, our most affordable device which costs about EUR 20, excluding taxes and subsidies, through to devices with more premium features costing upwards of EUR 100, excluding taxes and subsidies. During 2011, we shipped approximately 339.8 million feature phones.

In Mobile Phones, we have renewed our strategy to focus on capturing volume and value growth by leveraging our innovation and strength in growth markets to provide people with an affordable Internet experience on their mobile device – in many cases, their first ever Internet experience with any computing device. Almost 90% of the world's population lives within range of a mobile signal, yet there are around three billion people who do not own a mobile device. Of those who do own a mobile device, fewer than half use it to access the Internet for a number of reasons ranging from personal choice and affordability to the lack of an available Internet connection. We recognize that there is a significant opportunity to bring people everywhere affordable mobile products which enable simple and efficient web browsing, as well as give access to maps and other applications and innovations.

While the broader mobile devices market has often been characterized in terms of smartphones and feature phones, today, however, the distinction between these two classes of products is blurring. Supported by technological and design innovations, Nokia's portfolio of feature phones has over time become smarter to the extent that today's feature phone models are increasingly smartphone-like in the functionality and experiences they provide. In the fourth quarter of 2011, we launched the Asha range of Nokia feature phones, which offers access to the Internet, integrated social networking, messaging and access to applications from Nokia Store.

The Nokia Asha 303, which began shipping in the fourth quarter 2011, is our most advanced feature phone to date, combining a large 2.6" capacitive touch screen with a high quality QWERTY keypad, featuring a 1Ghz engine, and supporting 3G and WLAN for a fast Internet experience. The Nokia Asha 303 retails for approximately EUR 115, excluding taxes and subsidies. The Nokia Asha 200, which also launched in the fourth quarter 2011, features a full QWERTY keypad and stereo FM radio and offers fast access to the Internet and applications in Nokia Store. It also features Nokia's dual subscriber identity module (SIM) technology, which enables users to simultaneously connect to two different networks to receive calls and messages and to assign a name, logo and ringtone for up to five SIM cards. This technology is particularly useful if the user wishes to easily and quickly take advantage of more favorable tariffs offered by different operators at different times, switch SIMs when traveling, or to keep personal and work connections separate. It also enables users to remove and insert SIMs in the phone's second SIM slot without turning off the phone. The Nokia Asha 200 was among seven dual SIM devices we launched during 2011.

Nokia's dual SIM technology was among several new innovations during 2011 aimed at increasing affordability for the consumer not just at the point of sale, but in terms of the total cost of ownership of



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## **Table of Contents**

the device. Mobile Phones has also developed applications and services specifically with affordability in mind. During 2011, some of Nokia's new feature phones, including the Asha range, shipped with a powerful new cloud-enabled browser, which compresses data and can thus reduce the cost of browsing the web. Additionally, some new models shipped with our new maps software which provides an advanced, cost-efficient maps experience. Nokia Maps for Series 40 is similar to that available on our smartphones in that people can view maps and plan routes when the phone is in offline mode.

Mobile Phones has dedicated research and development teams addressing our short to medium-term needs in product and services development. During 2011, we made changes to our research and development operations for feature phones to reflect and support our new strategy, including ensuring that each research and development site has a clear focus and that there is greater co-location of our teams. The major Mobile Phones research and development sites for our feature phones are in Beijing in China, Oulu in Finland, and Ulm in Germany.

### ***Location & Commerce***

Our Location & Commerce business develops a range of location-based products and services for consumers, as well as platform services and local commerce services for device manufacturers, application developers, Internet services providers, merchants, and advertisers. The business was formed during 2011 by combining NAVTEQ, which we acquired in July 2008, with our Devices & Services social location services operations. From October 1, 2011, it has profit-and-loss responsibility and end-to-end accountability for the full consumer experience. Our Location & Commerce business continues to serve NAVTEQ's traditional customers, providing comprehensive digital map information and related location-based content and services for mobile navigation devices, automotive navigation systems, Internet-based mapping applications and government and business solutions.

Importantly, our Location & Commerce business is developing location-based offerings in support of our strategic goals in feature phones and smartphones, as well as developing a portfolio of products for the broader Internet ecosystem, including products for Nokia's direct competitors. Our Location & Commerce business aims to positively differentiate its digital map data and location-based offerings from those of our competitors and create competitive business models for our customers. In the development of the Windows Phone ecosystem, we and Microsoft are bringing together our complementary assets in search, with Nokia's maps offering at the heart of key Microsoft assets such as Bing and AdCenter to form a local search and advertising experience.

Location & Commerce's resources are primarily focused on the development of (i) content, which involves the mapping of the physical world and places such as roads and points of interest, as well as the collection of activity data generated and authorized for use by our users; (ii) the platform, which includes the underlying infrastructure of the map and the development tools for Nokia and others to create on top of it; and (iii) applications. The major Location & Commerce product development sites are in Berlin in Germany and Boston and Chicago in the United States.

During 2011, Location & Commerce continued to develop integrated location-based products and services for consumers, as well as platform services for the wider ecosystem. For consumers, these included the following applications available either commercially or in beta:

*Nokia Maps*, a mobile application that gives people new ways to discover and explore the world around them, as well as enabling them to search for and navigate to addresses and places of interest;

*Nokia Drive*, a dedicated in-car navigation application, equivalent to a full-fledged PND (personal navigation device), including voice-guided navigation in multiple languages for more than 100 countries, 2D and 3D map views and day and night modes;

## **Table of Contents**

*Nokia Public Transport*, a dedicated public transport application which provides smart public transportation routing for more than 231 cities worldwide on mobile, including timetable routing for bus and train routes for 77 cities;

*Nokia Pulse*, an application that enables people to instantly share their location or other information with family, friends or any other pre-defined group;

*Nokia City Lens*, an augmented reality application that enables people to see information about points of interest, such as a restaurant, hotel or shop, in their camera viewfinder;

*Nokia Maps HTML5*, a mobile web version of Nokia Maps providing access to Nokia's rich mapping experience to owners of non-Nokia smartphones and tablets;

*maps.nokia.com*, Nokia's mapping offering on the web, enabling people to discover the world easily and comfortably with City Pages, heat maps, 3D maps for more than 20 cities, a rich places directory, superior content from leading guides, and local insights from Nokia users.

### ***Application Stores***

Nokia makes available for download applications and content for its Symbian, MeeGo and Series 40 mobile devices at Nokia Store. In March 2012, the store offered more than 100 000 applications and was attracting more than 13 million downloads a day. Users of Nokia's Lumia products are served by the Microsoft-run Windows Marketplace, which in March 2012 was offering more than 65 000 applications.

### ***Vertu***

In addition to our Nokia-branded feature phones and smartphones, we also manufacture and sell luxury mobile devices under the Vertu brand. Vertu has more than 450 points of sale globally, including more than 25 Vertu boutiques, in close to 50 countries worldwide. The operating results of Vertu are reported under Devices & Services Other.

### ***Future Disruptions***

Longer-term, more exploratory technology development comes under the scope of Nokia's CTO (Chief Technology Office) organization. The teams in CTO organization set the long-term research agenda for Nokia and, in particular, explore next-generation, disruptive technologies and are organized as several sub-units, including Emerging Platforms, Compatibility and Industrial Collaboration, Advanced Engineering, and Nokia Research Center. The majority of our future disruptions-related work is undertaken within Nokia Research Center, a global network of research centers and laboratories we maintain, in many cases in cooperation with outside partners. Nokia Research Center looks beyond the development of current products, services, platforms and technologies to the creation of assets and competencies in technology areas that we believe will be vital to our future success. In recent years, the Nokia Research Center has been a contributor to almost half of Nokia's standard essential patents.

Nokia Research Center operates in a number of locations, including major sites in China, Finland, India, Russia, Switzerland and the United States. It also collaborates with more than 100 universities and research institutes around the world.

More recently, some of the latest concepts which Nokia Research Center has developed include Nokia Kinetic Device, a visionary solution for a dynamically flexible device beyond touch screens and voice communication; HD voice, technology which brings clearer call quality thanks to innovations in acoustics, noise cancellation and data compression; Nano Magic, which demonstrates advancements in the area of nanotechnology, in particular our work in surface structuring and the development of materials which can behave in different ways, such as repelling water; and High Definition Positioning, an indoor solution for location-based services.

## **Table of Contents**

The costs related to our future disruptions-related activities are reported under Devices & Services Other.

### ***Sales and Marketing***

Nokia has the industry's largest distribution network, with more than 850 000 points of sale globally alongside our own growing online retailing presence. Compared to our competitors, we have a substantially larger distribution and care network, particularly in China, India, and the Middle East and Africa. In 2011, we announced planned changes to our sales and marketing operations, including reorganizing geographic units with the primary aim of strengthening our teams' responsiveness to market demands and their customers' needs.

We derive our net sales of mobile devices primarily from sales to mobile network operators, distributors, independent retailers, corporate customers and consumers. However, the total device volume that goes through each channel varies by region. In 2011, sales in North America and Latin America were predominantly to operator customers, sales in Asia-Pacific, China and Middle East and Africa were predominantly to distributors, and sales in Europe were more evenly distributed between operators and distributors. Location & Commerce provides data to end-users through multiple distribution methods, including mobile device manufacturers such as Nokia, retail establishments, the Internet, automobile manufacturers, and other redistributors. That business licenses and distributes its database in several ways, including licensing and delivering the database directly and indirectly to its business customers and consumer end-users.

Our marketing activities play a fundamental role in our effort to bring people great mobile products. Our activities are designed to create loyalty, enhance the Nokia brand and drive more sales. We are among the top brands in the world according to the Interbrand annual rating of 2011 Best Global Brands.

During 2011, we continued to consolidate our marketing effort around the Nokia brand, with the aim of presenting a clear, simple and more coherent image of Nokia. Notably, we began a process of gradually phasing out the Ovi brand name we have used for certain services and experiences and replacing it with the Nokia brand. We have also continued to expand our digital marketing efforts, including engaging consumers through our own social media channels.

### ***Production***

For the production of mobile devices, we operate a global manufacturing network with facilities in Asia, Europe and Latin America.

In connection with the implementation of our new strategy, we have announced a number of planned changes to our operations resulting in the closure or planned closure and reconfiguration of certain Nokia facilities. During 2011, we announced the closure of our facility in Cluj, Romania, and production ended in Cluj in late 2011. In January 2012, we announced that De'Longhi, a global leader in household appliances, will acquire the facility. In February 2012, we announced planned changes at our facilities in Komárom in Hungary, Reynosa in Mexico and Salo in Finland. We plan to focus those facilities on smartphone product and sales package customization, serving customers mainly in Europe and the Americas, while our smartphone assembly operations will be transferred to our facilities in Asia—Beijing in China and Masan in South Korea—where the majority of our component suppliers are based.

**Table of Contents**

The following table shows our major manufacturing facilities as of December 31, 2011, with the expected production focus following the implementation of the planned changes we announced in 2011 and early 2012.

<b>Country</b>	<b>Location</b>	<b>Product focus</b>	<b>Production focus</b>
BRAZIL	Manaus	Feature phones and Smartphones	Assembly as well as software and sales package customization
CHINA	Beijing	Smartphones	Assembly as well as software and sales package customization
	Dongguan	Feature phones	Assembly as well as software and sales package customization
FINLAND	Salo	Smartphones	Software and sales package customization
HUNGARY	Komárom	Smartphones	Software and sales package customization
INDIA	Chennai	Feature phones	Assembly as well as software and sales package customization
MEXICO	Reynosa	Smartphones	Software and sales package customization
REPUBLIC OF KOREA	Masan	Smartphones	Assembly as well as software and sales package customization

In March 2011, we announced plans to establish a new manufacturing facility near Hanoi in northern Vietnam, with a targeted opening in early 2013. The new manufacturing site is being established to meet the growth in demand for feature phones.

Our manufacturing facilities form an integrated global production network, giving us flexibility to adjust our production volumes to fluctuations in market demand in different regions. Each of our plants employs state-of-the-art technology and is highly automated. A significant part of the production of a mobile device includes software customization or the integration of software and content a process which is usually done according to the specific requirements of our customers and the needs of individual markets.

Our mobile device manufacturing and logistics are complex and require advanced and costly equipment. From time to time, we outsource the manufacturing of certain aspects of certain products and components to adjust our production to demand fluctuations, as well as to benefit from expertise others have in the production of certain mobile technologies. For certain of our devices, we use contract manufacturers to produce the entire product. During 2011, the vast majority of our manufacturing needs were met by our own production network.

***Strategic Sourcing and Partnering***

In line with industry practice, Devices & Services sources components for our mobile devices from a global network of suppliers. Those components include electronic components, such as chipsets, integrated circuits, microprocessors, standard components, printed wiring boards, sensors, memory devices, cameras, audio components, displays, batteries and chargers, and mechanical components, such as covers, connectors, key mats, antennas and mechanisms. Such hardware components account for the majority of our overall spending on sourcing.

## **Table of Contents**

We also source software, applications and content from a global network of third-party companies, application developers, content providers and industry-leading technology providers. For instance, we obtain content from commercial partners in the music industry to offer an extensive catalog of digital music through Nokia Music, our digital music store, and content from travel guide publishers to expand and enhance Nokia Maps.

### ***Patents and Licenses***

A high level of investment by Devices & Services in research and development and rapid technological development has meant that the role of intellectual property rights, or IPR, in our industry has always been important. Digital convergence, multiradio solutions, alternative radio technologies, and differing business models combined with large volumes are further increasing the complexity and importance of IPR.

The convergence has for a long time meant that complete products integrate a number of technologies, and that multiple parties contribute to the development of new technologies. The detailed designs of our products are based primarily on our own research and development work and design efforts, and generally comply with all relevant and applicable public standards. We seek to safeguard our investments in technology through adequate intellectual property protection, including patents, design registrations, trade secrets, trademark registrations and copyrights. In addition to safeguarding our technology advantage, they protect the unique Nokia features, look and feel, and brand.

We have built our IPR portfolio since the early 1990s, investing over EUR 45 billion cumulatively in research and development, and we now own over 10 000 patent families. As a leading innovator in wireless technologies, we have built what we believe to be the strongest and broadest patent portfolios in the industry, extending across all major cellular and mobile communications standards, software and services as well as hardware and user interface features and functionalities. We receive royalties from certain handset and other vendors under our standard essential patent portfolio. Royalty income is reported under Devices & Services Other.

We are a world leader in the development of the wireless technologies of GSM/EDGE, 3G/WCDMA, HSPA, LTE, OFDM, WiMAX and TD-SCDMA, and we have a robust patent portfolio in all of those technology areas, as well as for CDMA2000. We believe our standards-essential patent portfolio is one of the strongest in the industry.

Our products include increasingly complex technology involving numerous patented, standardized or proprietary technologies. The possibility of alleged infringement and related intellectual property claims against us continues to rise as the number of entrants in the market grows, our product range becomes more diversified, our products are increasingly used together with hardware, software or service components that have been developed by third parties, we enter new businesses, and the complexity of technology increases. As new features are added to our products, we are also agreeing upon licensing terms with a number of new companies in the field of new evolving technologies. We believe companies like Nokia with a strong IPR position, cumulative know-how and IPR expertise can have a competitive advantage in the converging industry and in the increasingly competitive marketplace.

Location & Commerce relies primarily on a combination of copyright laws, including, in Europe, database protection laws, trade secrets and patents to establish and protect its intellectual property rights in its database. Location & Commerce protects its database, software and related technology through patents as well as through the terms of license agreements and by confidentiality agreements with its employees, consultants, customers and others.

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**Table of Contents*****Competition***

The mobile device market continues to undergo significant changes, most notably due to the broad convergence of the mobile telecommunications, computing, consumer electronics and Internet industries. With the traditional feature phone market continuing to mature, a major part of volume and value growth in the industry has been in smartphones offering access to the Internet. Additionally, other large handheld Internet-centric computing devices, such as tablets and e-readers, have emerged, trading off pocketability and some portability for larger screen sizes, but in many cases offering both cellular and non-cellular connectivity in the same way conventional mobile devices do. Due to their larger size, such devices are not replacing conventional mobile devices, but are generally purchased as a second device. Nevertheless, larger-screened Internet-enabled devices have captured a significant share of consumer spend across the broader market for mobile products and digital content and in different ways. For example, some competitors seek to offer hardware at a low price to the consumer with the aim of capturing value primarily through the sale of content.

The increasing demand for wireless access to the Internet has had a significant impact on the competitive landscape of the market for mobile products and digital content. Companies with roots in the mobile devices, computing, Internet and other industries are increasingly competing directly with one another, making for an intensely competitive market across all mobile products and services. At the same time, and particularly in the smartphone and tablets segments, success for hardware manufacturers is increasingly shaped by their ability to build, catalyze or be part of a competitive ecosystem, where different industry participants, such as hardware manufacturers, software providers, developers, publishers, entertainment providers, advertisers and e-commerce specialists are forming increasingly large communities of mutually beneficial partnerships in order to bring their offerings to the market. A vibrant ecosystem creates value for consumers, giving them access to a rich and broad range of user experiences. As a result, the competitive landscape is increasingly characterized in terms of a war of ecosystems rather than a battle between individual hardware manufacturers or products.

At the heart of the major ecosystems is the operating system and the development platform upon which devices are based and services built. In smartphones, our competitors are pursuing a wide range of strategies. Many device manufacturers are utilizing freely available operating systems, the development of which is not paid for from device sales revenue or software license fees. The availability of Google's Android platform has made entry into and expansion in the smartphone market easier for a number of hardware manufacturers which have chosen to join Android's ecosystem, especially at the mid-to-low range of the smartphone market. For example, some competitors' offerings based on Android are available for purchase by consumers for below EUR 100, excluding taxes and subsidies, and thus address a portion of the market which has been traditionally dominated by feature phone offerings, including those offered by Nokia. Accordingly, lower-priced smartphones are increasingly reducing the addressable market and lowering the price points for feature phones.

In general, we believe product differentiation with Android is more challenging, leading to increased commoditization of these devices and the resulting downward pressure on pricing. In addition, there is uncertainty in relation to the intellectual property rights in the Android ecosystem, which we believe increases the risk of direct and indirect litigation for participants in that ecosystem. Google, HTC, LG, Motorola, Samsung and Sony Ericsson are among competitors which have deployed the Android operating system on their smartphones. Samsung is among our strongest competitors, competing with us across a broad range of price points.

Other companies favor proprietary operating systems, including Apple, whose popular high-end iPhone models use the iOS operating system, and Research in Motion (RIM), which deploys Blackberry OS on its mobile devices. Both Apple and RIM have developed their own application stores, through which users of their products can access applications.

## **Table of Contents**

Apple, which has already gained a strong position in the market for high-end smartphones and tablets, has also used the strength of its ecosystem to further expand its offering of digital content through other interfaces such as television sets. Similarly, Google has sought to extend the Android ecosystem with its Google TV Internet-based television service.

Nokia currently offers smartphones based on the Symbian, MeeGo and Windows Phone operating systems, and we are transitioning to using Windows Phone as our primary smartphone platform. Users of Symbian-based Nokia products can access digital content and third-party applications through Nokia Store, while users of our Windows Phone devices can access the Microsoft-run Marketplace for digital content and third-party applications. The Windows Phone operating system is also being deployed on smartphones by others, including HTC and Samsung.

The significant momentum and market share gains of the global ecosystems around the Apple and Android platforms have increased the competitive barriers to additional entrants looking to build a competing global smartphone ecosystem, such as Nokia with the Windows Phone platform. At the same time, other ecosystems are being built which are attracting developers and consumers, and which may result in potential fragmentation among ecosystem participants and the inability of new ecosystems to gain sufficient competitive scale.

We also face intense competition in feature phones where a different type of ecosystem from that of smartphones is emerging involving very low-cost components and manufacturing processes, with speed to market and attractive pricing being critical success factors. In particular, the availability of complete mobile solutions chipsets from low-cost reference design chipset manufacturers has lowered the barriers of market entry and enabled the very rapid and low-cost production of feature phones by numerous manufacturers in China and India, which are gaining significant market share in emerging markets, as well as bringing some locally relevant innovations to market. Such manufacturers have also demonstrated that they have significantly lower gross margin expectations than we do.

We also face competition from vendors of unlicensed and counterfeit products with manufacturing facilities primarily centered around certain locations in Asia and other emerging markets which produce inexpensive devices with sometimes low quality and limited after-sales services that take advantage of commercially-available free software and other free or low-cost components, software and content. In addition, we compete with non-branded feature phone manufacturers, including mobile network operators, which offer mobile devices under their own brand, as well as providers of specific hardware and software layers within products and services at the level of those layers rather than solely at the level of complete products and services and their combinations. In the future, we may face competition from established Internet companies seeking to offer smartphones under their own brand.

Our competitors use a wide range of other strategies and tactics. Certain competitors choose to accept significantly lower profit margins than we are targeting. Certain competitors have chosen to focus on building products and services based on commercially available components and content, in some cases available at very low or no cost. Certain competitors have also benefited from favorable currency exchange rates. Further, certain competitors may benefit from support from the governments of their home countries and other measures which may have protectionist objectives.

With respect to digital map data and related location-based content, several global and local companies, as well as governmental and quasi-governmental agencies, are making more map data with improving coverage and content, and high quality, available free of charge or at lower prices. For example, our Location & Commerce business competes with Google which uses an advertising-based model allowing consumers to use its map data and related services in their products free of charge. Google has continued to leverage Google Maps as a differentiator for Android, bringing certain new features and functionality to that platform. Apple has also sought to strengthen its location assets and capabilities through targeted acquisitions and organic growth.

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## **Table of Contents**

Location & Commerce also competes with companies such as TomTom, which licenses its map data and where competition is focused on the quality of the map data and pricing, and Open Street Map, which is a community-generated open source map available to users free of charge. Aerial, satellite and other location-based imagery is also becoming increasingly available and competitors are offering location-based products and services with the map data to both business customers and consumers in order to differentiate their offerings.

### **Nokia Siemens Networks**

#### ***Overview***

Nokia Siemens Networks is one of the leading global providers of telecommunications infrastructure hardware, software and services. Focusing on innovation and sustainability, it currently provides a portfolio of mobile, fixed and converged network technology, as well as professional services including managed services, consultancy and systems integration, deployment and maintenance. In its core market, network equipment and services for mobile network operators, Nokia Siemens Networks had the second highest net sales worldwide to mobile network operators, with a leading position in 3G and LTE, in 2011.

Nokia Siemens Networks has a broad portfolio of products and services designed to address evolving needs of network operators from GSM to LTE wireless standards, a base of over 600 customers in over 150 countries serving over 2.5 billion subscribers and one of the largest services organizations in the telecommunications infrastructure industry. The company's global customer base includes network operators such as Bharti Airtel, China Mobile, Deutsche Telekom, France Telecom, Softbank, Telefonica O2, Verizon and Vodafone. As of December 31, 2011, Nokia Siemens Networks employed 73 686 people.

Nokia Siemens Networks began operations on April 1, 2007. Nokia Siemens Networks, jointly owned by Nokia and Siemens and consolidated by Nokia, combined Nokia's networks business and Siemens' carrier-related operations for fixed and mobile networks. Nokia Siemens Networks operational headquarters is in Espoo, Finland. The Board of Directors of Nokia Siemens Networks is comprised of seven directors, four appointed by Nokia and three by Siemens, and Nokia appoints the CEO.

#### ***Motorola Solutions Acquisition***

In April 2011, Nokia Siemens Networks acquired the majority of the wireless network assets of Motorola Solutions for a total consideration of EUR 642 million. From April 30, 2011, certain of Motorola Solutions' products and services and approximately 6 900 employees were transferred to Nokia Siemens Networks. The agreement to acquire the assets was originally reached in July 2010, but completion was delayed by regulatory approvals.

The acquisition increased Nokia Siemens Networks' global presence in GSM, DCMA, WCDMA, WiMAX and LTE, and strengthened its market position in key geographic markets with 50 customers in 52 countries, including some of the largest network operators globally, such as Verizon Wireless, KDDI and China Mobile.

In addition to bolstering Nokia Siemens Networks' research and development, with facilities including sites in the United States, China, Russia, India and the UK, the Motorola Solutions acquisition has enhanced the company's capabilities in CDMA, bringing its global presence in CDMA to 30 live networks in 22 countries. The acquired Motorola assets have also enhanced Nokia Siemens Networks' scale in GSM and LTE technologies, notably reinforcing its position in GSM with the addition of more than 80 live networks in 66 countries.



## **Table of Contents**

In June 2011, Nokia Siemens Networks announced that it would take steps to reduce the teams supporting the WiMAX and GSM businesses acquired from Motorola Solutions in response to lower demand for those products and services caused by the delay in closing the acquisition.

Initially, Nokia Siemens Networks aims to redeploy more than 1 200 people from the WiMAX and GSM businesses by shifting them to work on growth products and projects such as LTE and WCDMA. Nokia Siemens Networks also expects to reduce the overall global headcount related to the acquired Motorola assets by approximately 1 500. The changes began in 2011 and are expected to be completed in 2012. In November 2011, Nokia Siemens Networks announced its intention to sell the former Motorola Solutions WiMAX business to NewNet Communications Technologies.

### ***New Strategy and Restructuring Program***

In November 2011, Nokia Siemens Networks announced a new strategy, including changes to its organizational structure and an extensive global restructuring program, aimed at maintaining and developing Nokia Siemens Networks position as one of the leaders in mobile broadband and services and improving its competitiveness and profitability. The main elements of the new strategy are as follows.

*Focus on mobile broadband and services:* Nokia Siemens Networks believes that the future of the telecommunications industry will be increasingly dominated by mobile broadband and services. Consumers are increasingly demanding uninterrupted, ubiquitous access to information, entertainment and other data across a variety of devices. Nokia Siemens Networks believes that this will create opportunities for growth and value for the company and therefore intends to focus its resources on those areas, where it already has the benefit of a strong market share and technological leadership.

Nokia Siemens Networks plans to realign its business to focus on mobile broadband, including optical networks, customer experience management and services. The Services organization is expected to further strengthen Nokia Siemens Networks global delivery system.

Nokia Siemens Networks lead business areas will be Mobile Broadband and Customer Experience Management. In these areas, it will maintain, or even in some select areas increase, investment, with the goal of achieving number one or number two market position in each area.

Closely aligned with its lead segments will be the attach business areas. These businesses Network Implementation and Care are also targeted for strong growth in line with lead segments.

In addition, Nokia Siemens Networks will adapt other business areas to fit the new strategy, largely by reshaping to a narrower focus than exists today. For example, Managed Services will focus on fewer full outsourcing deals and move to target higher value opportunities, particularly related to global delivery capabilities and Customer Experience Management tools. It will maintain its Consulting and Systems Integration business, but that will become more closely aligned to the existing portfolio and targeted segments.

Optical Networks will also be in the adapt category, with a focus on building a strong base of select customers and leveraging its links to mobile broadband.

Business areas that are not consistent with those focus areas are planned to be divested or managed for value. These include: perfect voice, broadband access, WiMAX, narrowband, microwave transport, carrier Ethernet, Business Support Systems (BSS), and Communications and Entertainment Solutions (CES).

## **Table of Contents**

*Innovation:* In a dynamic technology-driven industry with demanding customers, it is critical for Nokia Siemens Networks to retain its technological competitiveness and produce products, solutions and services with leadership potential. Nokia Siemens Networks therefore intends to increase its investment in mobile broadband in the future.

*Quality:* The mobile broadband sector is notable for the highly demanding requirements of both network operators and end users. Nokia Siemens Networks believes that improving the quality of its products, solutions and services and delivering higher quality to customers can be a competitive differentiator. The company therefore plans to increase its investment in capabilities such as end-to-end testing, tools, automation, dedicated resources, customer-focused metrics and training. Nokia Siemens Networks expects to leverage the systems, processes and culture of quality brought to the company through the assets acquired from Motorola Solutions, which was widely acknowledged as one of the industry's leaders in quality.

*Restructuring:* In connection with announcing its new strategy in November 2011, Nokia Siemens Networks announced that it targets to reduce its annualized operating expenses and production overheads, excluding special items and purchase price accounting related items, by EUR 1 billion by the end of 2013, compared to the end of 2011. While these savings are expected to come largely from organizational streamlining, the company will also target areas such as real estate, information technology, product and service procurement costs, overall general and administrative expenses, and a significant reduction of suppliers in order to further lower costs and improve quality.

In connection with announcing its new strategy in November 2011, Nokia Siemens Networks announced that it plans to reduce its global workforce by approximately 17 000 by the end of 2013. These planned reductions are designed to align the company's workforce with its new strategy as part of a range of productivity and efficiency measures. These planned measures are expected to include elimination of the company's matrix organizational structure, site consolidation, transfer of activities to global delivery centers, consolidation of certain central functions, cost synergies from the integration of Motorola Solutions' wireless assets, efficiencies in service operations, and company-wide process simplification.

*Organization:* Nokia Siemens Networks announced it planned to reorganize its structure to reflect the new strategy. The company's sales organization, Customer Operations (CO), will be divided into three clusters: CO Asia and Middle East, which covers Asia Pacific, Japan, Greater China, India and Middle East regions; CO Europe and Africa, covering North East Europe, Western Europe, South East Europe and Africa; and CO Americas covering North America and Latin America. Customer Operations will have total ownership of sales and delivery and the complex sales matrix with business units will be dismantled.

Nokia Siemens Networks' business units will be Mobile Broadband, Customer Experience Management, and Optical Networks. Business units will focus on research and development, roadmaps, quality, strategy and technological competitiveness.

Global Services (GS) will focus on portfolio, strategy, competence development, tools, automation and global delivery. Services execution will be driven by a strengthened services organization in the three CO clusters.

Nokia Siemens Networks also plans to streamline its central functions with both Strategy and Business Development (SBD) and the Corporate Development Office (CDO) being disbanded. Information Technology will move to the CFO organization and the remaining parts of the CDO and SBD will be distributed to other teams or eliminated.

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## **Table of Contents**

### ***Divestments***

Consistent with its new strategy of focusing on core mobile broadband and services technologies and businesses, Nokia Siemens Networks has announced its intentions to divest a number of businesses:

In November 2011, Nokia Siemens Networks announced that it planned to sell its microwave transport business, including its associated operational support systems and related support functions, to Dragonwave Inc. Under the terms of the agreement, approximately 360 Nokia Siemens Networks employees are expected to transfer to Dragonwave. The companies expect to complete the planned acquisition and supply agreements during the first quarter of 2012.

In November 2011, Nokia Siemens Networks announced that it planned to sell the former Motorola Solutions WiMAX business to NewNet Communications Technologies ( NewNet ). Under the terms of the agreement, NewNet would acquire the complete WiMAX product portfolio, the related employees and assets, as well as active customer and supplier contracts. Approximately 300 Nokia Siemens Networks employees will transfer to NewNet. The transaction is expected to be completed during the first quarter of 2012.

In December 2011, Nokia Siemens Networks announced that it planned to sell its fixed line broadband access business and associated professional services and network management solutions to Adtran, a leading provider of next-generation networking solutions. The planned divestiture would include the broadband access intellectual properties, technologies and the established customer base. The transaction is expected to be completed during the second quarter of 2012.

At December 31, 2011, Nokia Siemens Networks was in negotiations to dispose of the assets and liabilities related to its obligations under the Norwegian nationwide TETRA Nødnett project. Accordingly, these assets and liabilities have been classified as held for sale. On January 11, 2012, Nokia Siemens Networks entered into an agreement to transfer these assets and liabilities including associated employees to Motorola Solutions Inc. The transaction was completed during the first quarter of 2012.

***The following business overview continues to describe Nokia Siemens Networks business prior to the announcement of its new strategy and changes in operational structure in order to align with the financial segment reporting and related operating and financial review discussion through December 31, 2011 contained in this annual report.***

### ***Business Units***

*Network Systems:* This business unit offers communication service providers both fixed and mobile network infrastructure.

For wireless networks, Network Systems develops and manufactures GSM/EDGE and WCDMA/HSPA radio access networks for network operators. It also develops innovative products such as I-HSPA and new technologies such as LTE to support the uptake of mobile data services and to introduce simplified network architecture for wireless and mobile broadband applications. Nokia Siemens Networks is a leader in LTE, with 50 commercial LTE contracts. LTE is the fourth generation of wireless network technology which has emerged as the industry standard platform for future high-speed mobile broadband networks. It also has a strong leadership position in the WCDMA market, with more 3G customers than any other vendor, and enjoys leadership positions in several other areas.

The main products are base stations, base station controllers and related software. Networks Systems flagship product is the Flexi Multiradio base station, a software defined radio supporting GSM, 3G and LTE radio technologies with common IP/Ethernet, Optical or Microwave transport. The Flexi Multiradio

## **Table of Contents**

base station is at the heart of Nokia Siemens Networks' Single RAN (Radio Access Network) solution, which enables communication service providers to operate different technology standards, from GSM to LTE, using the same hardware updated only by software.

For fixed line networks, Network Systems focuses on transport networks, which are the underlying infrastructure for all fixed and mobile networks. Network Systems provides the fundamental elements for high-speed transmission via optical and microwave networks, including packet-oriented technologies such as Carrier Ethernet and traditional protocols such as TDM.

The business unit also provides a comprehensive portfolio for wireline connectivity, including digital subscriber line access multiplexers and narrowband/multi-service equipment. Network Systems aims to provide cost-efficient high bandwidth for access networks, enabling high quality triple play services such as high-speed Internet, Voice-over-IP and IPTV.

*Global Services:* This business unit offers network operators a broad range of professional services, including network planning and optimization, the management of network operations and the care and maintenance of software and hardware, and a full range of network implementation and energy-efficient solutions, as well as extensive consulting and systems integration capabilities using market-leading processes and methodologies.

The Global Services business unit operates a global delivery model that is designed to achieve a balance between cost competitiveness and market reach. This is achieved through multi-technology, central delivery hubs that pool global skills and expertise as well as automated and standardized tools and processes to drive efficiency and quality for network operators globally. As of December 31, 2011, over 200 million global subscribers were managed via the global delivery hubs.

The consulting and solutions led approach of the Global Services business unit is aimed at customers who are increasingly looking for a business partnership with network infrastructure and service suppliers and who need consultancy services in relation to network management, development of value-added services for end-users and multi-vendor systems integration. Global Services consists of four businesses:

*Managed Services* offers services that include network planning, optimization and the management of network operations. Managed Services has a leading market share position, measured by net sales, in India, Latin America, Asia-Pacific and the Middle East and Africa and has over 650 million subscribers under the networks it manages across over 170 network operators around the world. Managed Services manages over 1 300 planning and optimization projects every year. Managed services includes two categories of network services: network planning and optimization, and network management and operations.

*Network planning and optimization* comprises planning/design and optimization. Typical planning/design elements of this service include network assessment, overall network design, capacity planning, site-count and configuration planning, and IP design.

*Network management/network operations* comprises multivendor network operation, offering improved technical operations of the network including field operations and centralized network operation centers. This happens at the network and service management level. These operations cover provisioning, trouble ticket management, performance and workforce management at the network level. Network management also provides an end to end perspective addressing both quality management and problem management.

*Care* offers services that include software and hardware maintenance, proactive and multi-vendor care and competence development services, providing approximately 1 million global hardware service transactions and solving over 200 000 software support cases per year across 600 customers in 150 countries.

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## **Table of Contents**

*Network Implementation* offers services that include all the services and solutions needed to efficiently build, expand or modernize a communications network, allowing this division's customers to grow in a sustainable way. The extensive portfolio of more than 600 projects globally has provided Nokia Siemens Networks the opportunity to establish approximately 330 000 sites a year, or one every 95 seconds on average.

*Consulting and Systems Integration* offers services that include consulting, architecture, system integration service capabilities and implementation of value added solutions such as third-party software and hardware products that help network operators transform their business and build more valuable customer relationships. Globally, Nokia Siemens Networks has delivered more than 1 500 systems integration and customization projects and 300 security projects since the company was formed in April 2007.

*Business Solutions:* This business unit provides products for communications service providers to enable a real-time customer view, convergent service control, cloud-based services, network and service management, and unified charging, billing and care. Based on a service-oriented architecture and covering all dimensions of customer experience management, operation support systems, business support systems and service enablement, the Business Solutions offering provides capabilities for communications service providers to enhance the customer experience, drive new revenue and improve operational efficiency.

*Customer Experience Management* includes products for subscriber data management, customer care automation, network and resource management, device management, network and service assurance, reporting and analytics, identity management, campaign management, and charging and billing. This enables communications service providers to consolidate and leverage subscriber, network, device, service and usage data to trigger business actions that enhance the customer experience in real-time.

*Operations Support Systems* includes products for network, service, resource and inventory management. This enables communications service providers to automate operational processes, manage multivendor networks and services, enhance network performance and assure service quality.

*Business Support Systems* includes products for convergent charging and billing, mediation and service brokering. This enables communications service providers to monetize services through flexible and personalized pricing models, bundles and payment methods, and to leverage existing network assets and new-IP capabilities to deliver next-generation services and accelerate time-to-market.

*Service Enablement and Delivery* includes products for mobile browsing, messaging, multiscreen TV and location-based services, as well as a Voice as a Service ( VaaS ) solution for virtualized services in a private cloud environment. This enables communications service providers to develop, launch and monetize services across multiple networks and devices, reduce time-to-market and total cost of ownership, leverage third-party partners and enhance the customer experience.

### ***Sales and Marketing***

*Sales:* Nokia Siemens Networks has a geographically diverse direct sales force which is active in approximately 120 countries. This geographic diversity provides proximity to customers, enabling the development of close relationships. Customer teams, customer business teams (which handle larger accounts) and the company's four global customer business teams (which are aligned with the largest global customer accounts) act as Nokia Siemens Networks' main customer interfaces to create and capture sales opportunities by working with their customers to anticipate the needs of their business and to develop solutions. Sales are done predominantly directly or in some cases through approved Nokia Siemens Networks reseller companies.

## **Table of Contents**

Typically, orders are placed with Nokia Siemens Networks directly or following a formalized Request for Proposal process involving several potential vendors. Orders received may be for immediate short-term deliveries or for significantly longer periods covering, for example, a full network rollout with network implementation or even performed on a turnkey project basis. Quite often, a framework agreement will be established under which specific deliveries and services are called up over time. Managed services contracts are generally long-term, typically for five years or more.

*Sales Organization:* The Customer Operation unit oversees and executes sales and product marketing at Nokia Siemens Networks. Since January 1, 2011, the Customer Operations unit has been organized around two regional clusters: East (which covers the APAC, Greater China, India, Japan and Middle East regions) and West (which covers Africa, Latin America, North America, North East Europe, South East Europe and West Europe).

Cross-regionally, specialist sales teams focus on the products and services offered by Nokia Siemens Networks three business units. The global customer business teams are Deutsche Telecom, France Telecom/Orange, Telefónica and Vodafone. Below the regional level, Customer Operations unit is structured using sub-regions or customer business teams, with the customer teams at the customer interface aligned to specific customers or groups of customers.

*Marketing:* The marketing and corporate affairs unit of Nokia Siemens Networks is responsible for developing, executing and measuring the corporate marketing strategy, plan and budget. It develops content, executes and measures corporate marketing programs and events that raise the visibility of the Nokia Siemens Networks brand, seeks to position Nokia Siemens Networks as a thought leader in the telecoms industry and promotes its portfolio of products, solutions and services to communications service providers and public and corporate customers. It works in close collaboration with the regional marketing teams, sales, the business units, the corporate strategy team and human resources.

## ***Production***

Nokia Siemens Networks operations unit handles the supply chain management of all Nokia Siemens Networks hardware, software and original equipment manufacturer (OEM) products. This includes supply planning, manufacturing, distribution, procurement, logistics, demand/supply network design and delivery capability creation in product programs.

At the end of 2011, Nokia Siemens Networks had ten manufacturing facilities worldwide: five in China (Beijing, Shanghai, Tianjin, Hangzhou and Suzhou), one in Finland (Oulu), two in Germany (Berlin and Bruchsal), and two in India (Kolkata and Chennai). The Tianjin and Hangzhou sites were acquired as part of the Motorola Solutions acquisition.

In April 2010, Nokia Siemens Networks started manufacturing of 3G mobile communications infrastructure at its Chennai facility to enable key customers in India to roll out 3G services faster. With this, Nokia Siemens Networks became the first vendor of telecommunications infrastructure to manufacture 3G products locally in India.

Nokia Siemens Networks works with best-in-class manufacturing service suppliers to increase its flexibility and optimize costs. Approximately 29% of Nokia Siemens Networks production is outsourced.

Certain components and sub-assemblies for Nokia Siemens Networks products, such as company specific integrated circuits and radio frequency components, are sourced and manufactured by third-party suppliers. Nokia Siemens Networks then assembles these components and sub-assemblies into final products and solutions. For selected products and solutions, suppliers deliver goods directly to

## **Table of Contents**

Nokia Siemens Networks customers. Consistent with industry practice, Nokia Siemens Networks manufactures telecommunications systems on a contract-by-contract basis.

Nokia Siemens Networks generally prefers to have multiple sources for its components, but in certain cases it sources some components from a single or a small number of selected suppliers. These business relationships are stable and typically involve a high degree of cooperation in research and development, product design and manufacturing to ensure optimal product interoperability.

### ***Research and Development***

The Chief Technology Office focuses on research, standardization, intellectual property rights and innovation. It cooperates with universities, research institutes, leading industry partners and other industry cooperation bodies worldwide. The focus is on leading edge technologies three or more years out.

Nokia Siemens Networks business units focus on understanding short- and medium-term customer needs and the overall development of the market to define requirements for product and solution functionality that will meet its customers requirements in the market. Each business unit is responsible for roadmaps for products, services, solutions and applications, while also managing actual development of hardware and software required for building products and solutions. Business units closely work together with industry partners to leverage their innovation into the Nokia Siemens Networks products, services and solutions while focusing their own research and development.

Nokia Siemens Networks has research and development centers in China, Finland, Greece, India, Israel, Italy, Portugal, Poland and the United States. Nokia Siemens Networks research and development work focuses on wireless and wireline communications solutions that enable communications services for people, machines, businesses and public authorities. These include wireless connectivity solutions like GSM/EDGE, 3G/WCDMA/HSPA/HSPA+, TD-LTE and LTE and wireline connectivity solutions based on copper (ADSL, VDSL2 and Ethernet), and fiber-based next generation optical access, or NGOA. Nokia Siemens Networks also develops the software, solutions and services that drive all these technologies, as well as the end-user analytics and insight to ensure that new services operate as intended.

In the transport and aggregation domain, carrier ethernet, next generation packet optical transport networks consisting of optics, microwave and IP routers, IP traffic analysis and multi-access mobility are among the key focus areas. Within the applications domain, research and development focuses on service enabling, network value-added services, identity management, and subscriber and device profile data storage. It also focuses on peer-to-peer, or person-to-person services, IP connectivity session control (IMS) and VoIP, network/service/subscriber/device management, and business management for instance for online and offline charging for post- and pre-paid subscribers. Additionally, research and development focuses on self organized networks.

Nokia Siemens Networks also conducts research and development to support its customers when leveraging communications technologies for servicing other industries like the energy and transport sectors.

Nokia Siemens Networks conducts research and development internally as well as with industry partners where additional capacity or expertise is required.

### ***Patents and Licenses***

Nokia Siemens Networks seeks to safeguard its investments in technology through appropriate intellectual property protections, including patents, patent applications, design patents, trade secrets, trademark registrations and copyrights. Nokia Siemens Networks owns a significant portfolio

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**Table of Contents**

comprising IPR that was transferred from its parent companies at formation and IPR filed since its start of operations. Nokia Siemens Networks is a world leader in the research and development of wireless technologies, as well as transport and broadband technologies, and it has robust patent portfolios in a broad range of technology areas. The IPR portfolio includes standards-related essential patents and patent applications that have been declared by Nokia and Siemens. Nokia Siemens Networks has declared its own essential patents and patent applications based on evaluation of pending cases with respect to standards. Nokia Siemens Networks receives and pays certain patent license royalties in the ordinary course of its business based on existing agreements with telecommunication vendors.

***Competition***

Conditions in the market for mobile and fixed network infrastructure and related services improved, but remained challenging and intensely competitive in 2011. The market continued to be characterized by mixed trends as growth in mobile broadband and services was offset by equipment price erosion, a maturing of legacy industry technology and intense price competition.

Industry participants have changed significantly in recent years. Substantial industry consolidation occurred in 2007 with the emergence of three major European vendors: Alcatel-Lucent, Ericsson and Nokia Siemens Networks. The break-up of Nortel occurred in 2009 when it entered bankruptcy protection and many parts of the business were sold, including the wireless carrier unit, Metro Ethernet Networks, and its GSM business. In January 2011, Motorola Solutions completed its separation from Motorola Mobility Holdings Inc. In April 2011, Nokia Siemens Networks acquired the majority of Motorola Solutions' wireless network infrastructure assets.

During 2011, the competitive environment in the telecommunications infrastructure market was characterized by continued overall growth in global network operators' capital expenditures in Euro terms, mainly attributable to the Japanese, Chinese, APAC, North East Europe and Latin American markets. Growth in capital expenditures declined in the Middle East and remained relatively unchanged in the European and North American markets in Euro terms in 2011. Increased smart phone usage drove increased investments in the United States and European wireless markets. The vendors from China, Huawei and ZTE, continued to grow their market share but at a slower pace than in previous years and continued to challenge Alcatel-Lucent, Ericsson and Nokia Siemens Networks. Nokia Siemens Networks' ability to compete with low-cost vendors primarily depends on its ability to be price competitive and, in certain circumstances, its ability to provide or facilitate vendor financing. In recent years, the technological capabilities of the Chinese vendors, particularly Huawei, has improved significantly, resulting in competition not only on price but also on quality. In addition to the major infrastructure providers, Nokia Siemens Networks also competes with Cisco and NEC.

In the Networks Systems business, the decline of 2G (GSM, CDMA) continued in 2011, whereas investments in 3G continued and increased worldwide. Also, fourth generation (4G) LTE trials and pilots continued strongly as operators continued to merge towards next generation LTE and all-IP networks. Within the LTE segment, leading vendors are competing based on factors including technology innovation, network topology and less complex network architectures as well as integration towards all-IP networks.

Growth in wireline and wireless broadband services sped up optical and wireless network upgrades in developed markets. In addition, the related investment in mobile backhaul networks continued to increase due to data traffic increases in the operator networks.

In services, which remained the fastest growing part of the industry, competition is generally based on a vendor's ability to identify and solve customer problems rather than their ability to supply equipment at a competitive price. Competition in services is from both traditional vendors such as Alcatel-Lucent,



## **Table of Contents**

Ericsson and Huawei, as well as non-traditional telecommunications entities and system integrators, such as Accenture and IBM. In addition to these companies, there are also local service companies competing, which have a narrower scope in terms of served regions and business areas.

Nokia Siemens Networks Business Solutions business unit assists network operators in transforming their business, processes and systems to enhance the customer experience, drive new revenue and improve operational efficiency to enable them to successfully address the challenges and opportunities of mobile broadband, smartphones, tablet computers, multi-play offerings, service innovation and new growth areas. In this area, Nokia Siemens Networks faces competition also from information technology and software businesses like Accenture, Amdocs, HP, IBM and Oracle, which are active in areas such as the service delivery platform market and business insight and analysis services.

Certain competitors may receive governmental support allowing them to offer products and services at substantially lower prices. Further, in many regions restricted access to capital has caused network operators to reduce capital expenditure and has produced a stronger demand for vendor financing. Certain of Nokia Siemens Networks competitors may have stronger customer financing possibilities due to internal policies or government support. While the amount of financing Nokia Siemens Networks provided directly to its customers in 2011 remained at approximately the same level as in 2010, as a strategic market requirement it plans to offer this financing option only to a limited number of customers and primarily to arrange and facilitate such financing with the support of export credit or guarantee agencies.

### **Seasonality Devices & Services, Location & Commerce and Nokia Siemens Networks**

For information on the seasonality of Devices & Services, Location & Commerce and Nokia Siemens Networks, see Item 5A. Operating Results Certain Other Factors Seasonality.

### **Sales in US Sanctioned Countries: Devices & Services, Location & Commerce and Nokia Siemens Networks**

We are a global company and have sales in most countries of the world. We sold mobile devices and services through our Devices & Services and Location & Commerce businesses and network equipment through Nokia Siemens Networks to customers in Iran, Sudan and Syria in 2011. We did not have any sales in Cuba in 2011. NAVTEQ, which was our reportable segment until the end of the third quarter 2011, did not have any sales to customers in those countries from the completion of our acquisition of NAVTEQ on July 10, 2008. Currently, the business which was reported under our former NAVTEQ reportable segment resides in our new Location & Commerce reportable segment as from the beginning of the fourth quarter 2011. Our aggregate net sales to customers in Iran, Sudan and Syria in 2011 accounted for approximately 1.4% of Nokia's total net sales, or EUR 545 million. Cuba, Iran, Sudan and Syria are subject to US economic sanctions that are primarily designed to implement US foreign policy, and the United States government has designated these countries as state sponsors of terrorism.

### **Government Regulation: Devices & Services, Location & Commerce and Nokia Siemens Networks**

Our business is subject to direct and indirect regulation in each of the countries in which we, the companies with which we work and our customers do business. As a result, changes in or uncertainties related to various types of regulations applicable to current or new technologies, products and services could affect our business adversely. Moreover, the implementation of technological or legal requirements could impact our products and services, manufacturing and distribution processes, and could affect the timing of product and services introductions, the cost of our production, products

**Table of Contents**

and services, as well as their commercial success. Also, our business is subject to the impacts of changes in trade policies or regulation favoring the local industry participants, as well as other measures with potentially protectionist objectives that the host governments in different countries may take. Export control, tariffs or other fees or levies imposed on our products and services as well as environmental, product safety and security and other regulations that adversely affect the export, import, pricing or costs of our products and services could adversely affect our net sales and results of operations.

For example, in the United States, our products and services are subject to a wide range of government regulations that might have a direct impact on our business, including, but not limited to, regulation related to product certification, standards, spectrum management, access networks, competition and environment. We are in continuous dialogue with relevant United States agencies, regulators and the Congress through our experts, industry associations and our office in Washington, D.C. New, partly local 3G telecom standards have been enacted in China that may affect product processors and success criteria of the vendors. Also, the European Union (EU) regulation has in many areas a direct effect on our business and customers within the single market of the EU. Various legal requirements influence, for example, the conditions for innovation for multifunctional devices and services, as well as investment in fixed and wireless broadband communication infrastructure. We interact continuously with the EU through our experts, industry associations and our office in Brussels.

**Corporate Responsibility: Nokia**

*In the following description of our corporate responsibility activities, Nokia and we refer to our Devices & Services and Location & Commerce businesses. Corporate responsibility matters relating to Nokia Siemens Networks are discussed below under heading Corporate Responsibility: Nokia Siemens Networks.*

Nokia strives to be a leader in sustainability. We have a long track record of taking sustainability into account in everything we do, from the products we build and the suppliers we choose, to the services we develop which enhance people's education, livelihoods and health, and which can be beneficial in many other areas too. We are also looking beyond our own operations to how the more than 1.3 billion people using a Nokia mobile product can enhance and enrich their lives in a sustainable way with mobile technology.

Sustainability issues are reviewed regularly at all levels of the company, including within the Nokia Leadership Team and the Board of Directors, and we have personnel across the business responsible for environmental and social targets. We also publish annually our sustainability report which we make available on our website. Nokia has published corporate responsibility reports since 2002 and reports about its environmental activities since 1999. In this section, we cover the ethical, socio-economic and environmental areas defined as most material to our business and our stakeholders, with a focus on 2011.

***Impact on People: Devices & Services and Location & Commerce***

*Supporting broad access to the benefits of mobile technology.* We believe we are well placed to support people through our core business. Mobile technology has enabled people to connect with one another and access information in new ways, and we believe it has been a force for positive change in people's lives around the world. At Nokia, we address the fundamental needs of connectivity, affordability and relevance for a broad range of consumer groups. The new strategy we announced in February 2011, including our plan to win in smartphones and connect the next billion to the Internet and information, is also designed to continue to bring our products and services, as well as the benefits of mobile technology, to a broad range of consumers around the world.

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## **Table of Contents**

*Accessibility of Nokia products.* Accessibility is about making Nokia products and services usable and accessible to the greatest possible number of people, including users with disabilities. Nokia is working to bring wireless communications to the estimated 600 million people worldwide who have a recognized disability and others with needs for improved accessibility. Our goal is to offer products that take such needs into consideration, whether these are in regards to vision, hearing, speech, mobility or cognition. Many of the features initially developed to better serve these specific groups are finding uses in the general population, especially as the population ages. For people with hearing difficulties, we have developed the Nokia Wireless Loopset (LPS-5), which enables t-coil equipped hearing aid users to use a mobile device in a convenient way. Additionally, the increased affordability of smartphones has made features such as screen magnification, voice dialing, text-to-speech processing and enhanced personalization options more accessible for more people. In 2011, we organized a Nokia Accessibility Summit to further engage our stakeholders in discussion on our new direction and its implications for accessibility. The latest additions to our offering include the Nokia Screen Reader, which enables the visually impaired to hear the contents of the screen, as well as the Accessibility Channel on Nokia Store, with dozens of accessibility applications.

*Our focus in corporate social investment.* We focus our corporate social investments on programs which utilize mobile technology. We believe that investing in mobile technology can bring social benefits which have a meaningful impact on a large scale, but at a low cost. Our focus areas are education, health, livelihoods and environmental awareness. We are making many of the software solutions we develop in these areas open source, which means that third-party developers from around the world can utilize them, tailor them and make money from them in their own ways. This approach helps ensure greater local support for organizations adopting such solutions. It also helps ensure that the development of such solutions is not solely dependent on Nokia's involvement.

*Education.* In the area of education, mobile technology can provide access to quality education materials and support to teachers, learners and their families. Critically, mobile communication allows the delivery of education to people, instead of requiring the delivery of people to education. In that sense, it can help to improve equality in educational achievement because girls tend to be disadvantaged when it comes to attendance. It can reduce the cost of delivering quality content and change the teaching environment, enabling the teachers' role to evolve into facilitators of peer-to-peer learning. Concepts such as Nokia Life (previously Nokia Life Tools), our expanding subscription-based service, also show the potential of affordable education delivery to citizens on a large scale. We currently offer Life Tools in China, India, Indonesia and Nigeria, and by late 2011, over 40 million people have experienced the service. We have also developed, or are participating in, more initiatives specifically related to education. These include the following:

*Nokia Education Delivery,* software which enables the structured delivery of quality education materials over mobile networks. Combined with teacher training and community engagement, this software has been shown to improve academic results and increase retention among students, especially girls. During 2011, Nokia Education Delivery expanded to Kenya, Nigeria, Bangladesh, Indonesia and India. This built on earlier projects in Chile and Colombia, the Philippines and Tanzania. Nokia Education Delivery was made open-source during 2011, making the concept available to be adopted by organizations looking for innovative ways to train, educate and inform their personnel.

*Nokia Mobile Mathematics,* a solution which combines official mathematics curricula with social networking. By the end of 2011, 20 000 students, 700 teachers and 172 schools in South Africa had benefited from Nokia Mobile Mathematics, compared with 4 000 students and 30 schools at the end of 2010.

*Health.* We believe mobile technology has a critical role to play in preventing outbreaks of diseases and improving human health and well-being. We offer applications and services, and work with partners to conduct research. Nokia Data Gathering, a platform which helps any

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## **Table of Contents**

organization collect data via feature phones, contributes to health as one of its many uses. The solution has been used successfully in contributing to more than 90% reduction in dengue fever cases in the Amazon. Our Nokia Life service also promotes health, including providing pregnancy advice, as well as information about parental skills and childcare, family health and fitness, and diseases.

*Livelihoods.* In 2010, we announced the availability of Nokia Data Gathering under an open source license, meaning the solution can be customized quickly and easily anywhere in the world. Consequently, we saw the number of organizations using the services doubling to close to 200 during the course of 2011. This software suite replaces traditional data-gathering methods such as paper questionnaires with mobile devices, improving results and saving time and money. The open source model allows us to affordably offer the software on a large scale, while offering clients flexibility and supporting the creation of livelihoods for systems integrators and developers. Successful use cases have included the Department of Agriculture in the Philippines (to improve food security), UN FAO in Kenya (mapping water points), World Vision in Indonesia (child sponsorship), Plan Kenya (birth registration) and Syngenta Foundation in Kenya (agricultural productivity).

We support agricultural livelihoods through Nokia Life, providing up-to-date and local market prices, information about the weather, availability of seeds, fertilizers, and pesticides, as well as relevant news and advice. With the services, farmers can, for example, use the text-based service to check crop prices at markets nearby to find the best market for their products without incurring the time and money that would have otherwise been spent travelling to markets to check prices.

*Nokia values.* Nokia's new strategy, announced in February 2011, has underlined the need for our employees to adopt the mind-set of a challenger. The new challenger philosophy emphasizes on results, speed and accountability and requires all of us to change, to adopt new attitudes and new ways to satisfy our customers. To accelerate our speed of execution we are also developing new ways of working, with a particular focus on driving faster decision-making, reducing complexity and improving our responsiveness to customer needs and market trends.

*New strategy and its impact on employees.* Our new strategy and mode of operation place a greater focus on results, speed and accountability. During the adoption of our new strategy, we have had to make some painful decisions, including planned reductions in headcount. As a responsible employer and company, we initiated Bridge, a special program tailored for different markets which has provided and continues to provide comprehensive support to individuals and local communities impacted. The Bridge program provides the following re-employment possibilities.

*A new job within the company:* Nokia seeks to retain talent to the extent possible by providing career counselling and helping employees identify job opportunities in Nokia.

*A new job outside the company:* We offer career counselling, help to identify job opportunities and work with our extensive network to create a dedicated job portal and link employees directly with local companies and their resourcing needs. All employees impacted during 2011 were able to stay on the Nokia payroll for all of 2011, while employees affected in 2012 are being given an additional two-month grace period. In addition, employees are receiving severance packages in accordance with local practices should they leave Nokia.

*Entrepreneurship:* We offer training and funding, and helps identify business opportunities and partnerships for those interested in starting a new business or a company on their own, which can fuel new growth for impacted communities.

*Career renewal:* We focus on helping employees find relevant work or academic re-training opportunities that can support a speedy return to employment.

By early 2012, more than 5 000 employees had participated in the Bridge program, more than 200 new businesses had been established and approximately 70% of employees had found a new position

## **Table of Contents**

within Nokia, outside of Nokia or in the new businesses. Additionally, a large number of people have been participating in various training programs to improve their competitiveness and attractiveness in the job market.

*Diversity and inclusion.* We are committed to promoting diversity and inclusion in the workplace and providing rewarding career development opportunities for all employees.

*Training and development.* We provide a variety of mandatory and voluntary training opportunities for our employees to help them develop a broad range of skills for the workplace, as well as the competencies specific to their roles.

*Performance and rewarding employees.* We offer a variety of recognition plans with levels of compensation determined by local labor markets and taking into account both individual contribution and company performance. We encourage managers to coach employees continually and to have at least one formal personal development discussion every year.

A number of employees are nominated for our equity plans, which serve to reward performance as well as increase retention and recruitment of top talent. Our broad-based equity compensation plans include stock options and performance shares, which are linked to the company's performance over a number of years. There are several other plans including cash incentive plans for all employees as well as cash and recognition awards.

*Health, safety and well-being.* Our Occupational Health and Safety (OHS) Policy sets out our commitment to provide safe and healthy working conditions for all our employees and promote well-being at work. We work with our contractors, suppliers and customers to continuously monitor health and safety issues and meet our commitments. As a global company, we have selected the Occupational Safety & Health Administration (OSHA) guidelines for accident and illness reporting. If we need to report locally, we refer to the appropriate local standards. In 2011, we renewed our Global Occupational Health & Safety Injury and Illness (IIR) Reporting Guidelines. In addition to reporting injuries and illnesses which have caused absenteeism, we now also report those cases that require some type of medical treatment or first aid, but do not result in absenteeism. In 2011, Nokia also changed the disclosure of incident frequency rate to include also non-lost time incidents in addition to lost time incidents. The change was made in order to continuously improve our Factory Safety and Health Programs. Our global Total Incident Frequency Rate for all our major manufacturing facilities for 2011 with the renewed reporting was 0.5.

*Labor Conditions at manufacturing facilities.* At December 31, 2011, we had 25 428 employees working directly in production, including manufacturing, packaging and shipping. We carry out in-depth assessments of labor conditions at all of our major manufacturing facilities every second year. During the intervening period, we also carry out reassessments to ensure any necessary corrective actions have been made, and we conduct some internal audits based on risk analysis. The latest assessment was conducted by Intertek in 2010 in all of our major manufacturing facilities. Our manufacturing facilities were reported as clean, properly managed with the respect of employees, and relaxed atmospheres free from any discrimination. Our focus since the last assessment round has been on workplace safety.

All assessments are carried out against the Nokia Labour Conditions Standard, as well as all local laws. The Nokia Labour Conditions Standard is based on the International Labour Organization and UN Human Rights conventions and has been benchmarked against other international labor laws and standards. This standard provides a framework to monitor and assess labor conditions in a consistent manner, and addresses the following issues: discrimination, forced labor, child labor, freedom of association, occupational safety, occupational health, disciplinary practices, working hours,

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**Table of Contents**

compensation and management systems. We also recognize the right of employees to join unions and enter into collective bargaining agreements. Almost all of our manufacturing facilities have collective agreements in place with one or more labor unions. At December 31, 2011, 78% of our production employees were covered by collective bargaining agreements.

In addition to onsite assessments, we also request that all eight of our major mobile device manufacturing facilities conduct a self-assessment once a year using the ETASC (Electronics-Tool for Accountable Supply Chains) self-assessment tool. ETASC, a joint effort of the Global eSustainability Initiative (GeSi) and the Electronic Industry Citizenship Coalition (EICC), is a web-based information management system to help companies collect, manage, and analyze social and environmental responsibility data from their supply chain.

*Nokia Code of Conduct.* We are committed to actively fighting improper business practices, including corruption, and believe that as a global company, we can play an important role in this area. We also believe that our efforts can provide us with a competitive advantage with customers who demand high ethical standards in their supply chain. For these reasons, we have a Code of Conduct in place across Nokia. In 2011, we created the position of Chief Ethics & Compliance Officer, who plays a key role in the support and development of the Code of Conduct, oversees corporate investigations as well as compliance with policies and laws, and aims to foster the highest ethical standards in all the countries where Nokia operates and does business.

The Code of Conduct is available in 34 languages and can be found on our website. Since 2009, we have conducted a program to train each employee on our Code of Conduct using an e-learning platform which is offered in 14 languages as well as live classroom training. By the end of 2011, 98% of eligible non-manufacturing-based employees completed their training and in our manufacturing facilities 72% of eligible employees completed their classroom training. The training programs will continue during 2012. We have established several communications channels available to employees and others to get help in understanding and applying the Code of Conduct, or to report concerns of violations, including a Contact the Board channel for contacting the Board of Directors anonymously.

*Human rights.* Improved communications provide better opportunities for freedom of expression, and therefore promote civil and political rights as well as economic and social rights. At the same time, we have specific human rights responsibilities toward our employees, customers, the communities where we work, and within our supply chain. We apply UN Human Rights special representative John Ruggie's business and human rights framework to our business practices. The Protect, Respect and Remedy framework has been widely welcomed by industry and governments. In 2011, we launched the Nokia Human Rights Approach, articulating Nokia's commitment to human rights.

*Suppliers.* Our sustainability efforts relating to our supply chain are discussed below under *Impact on the environment: Devices & Services and Location & Commerce*.

*Customer privacy.* As the Internet has grown and new services for consumers have emerged, user privacy has become increasingly important. Consumers have increasing possibilities to use and share their personal information in new contexts. To remain a trusted brand, we work to ensure that this custodial information is protected from any threats. Respect for privacy is part of our commitment to observing high standards of integrity and ethical conduct in all our operations.

*Product safety.* Product safety is a top priority for Nokia. All our mobile products operate below relevant international exposure guidelines and limits that are set by public health authorities. Since 1995, expert panels and government agencies around the world have performed more than 110 reviews of the scientific evidence regarding health effects from exposure to radio frequencies (RF). These reviews consistently support the scientific conclusion that RF fields operated at levels below the exposure

## **Table of Contents**

guidelines pose no adverse effects to humans. We are responsive to our customers' questions about mobile device safety and are committed to making information available transparently for consumers. Our website contains information and links to other sources. Since 2001, we have also voluntarily made SAR (Specific Absorption Rate) information available to consumers. The information is included in product user guides and can also be found on our website.

*Disaster response and preparedness.* As a global business, we have a disaster response plan in place and we evaluate every crisis situation separately. We are increasingly focusing on disaster preparedness and rehabilitation, including the development of mobile-based tools and applications. In 2011, we gave financial or in-kind support in several crisis-afflicted areas, including Japan, Australia, New Zealand, Thailand and the Horn of Africa.

*Partnering with non-governmental organizations.* In 2011, we started a global partnership with Oxfam, an International federation working on solutions to poverty and related injustice. In addition, we have global partnerships in place with IUCN (International Union for Conservation of Nature), UNESCO (United Nations Educational, Scientific and Cultural Organization) and WWF (World Wide Fund for Nature).

### ***Impact on the Environment: Devices & Services and Location & Commerce***

At Nokia, we believe that our approach to looking after our environment not only reflects ethical, moral and legal responsibilities, but also makes good business sense. Environmental issues are fully integrated in our business activities and are everyone's responsibility at Nokia. Additionally, our environmental goals are not driven solely by regulatory compliance but are designed to go beyond legal requirements. Our environmental work is based on global principles and standards. In 2011, we continued to focus on materials used, energy efficiency, take-back of used products, the overall environmental performance of our activities and the supply chain, and eco services for our products to help people to make sustainable choices and consider the environment in their everyday lives. Our strategy, goals and performance in key environmental areas are described below.

*Environmentally-leading mobile product range.* We have been driving environmental improvements systematically across our mobile product portfolio for years, and we aim to continuously improve the environmental attributes of all our mobile products. During the last decade, we have been able to reduce the environmental impact of our products—measured by the greenhouse gas emissions through the entire product lifecycle—by up to 50%, while also introducing new features and capabilities that allow the mobile device to be used in many other ways than just for calling. In 2011, we introduced five new Eco Hero devices, including the Nokia 700, our greenest smartphone, which uses renewable and recycled materials such as bio-paints, bio-plastics, recycled plastics and recycled metals, as well as the Nokia Asha 200 and 201, our lowest-priced Eco Hero devices.

The way we design and make mobile products is guided by life cycle thinking, aiming to minimize the environmental impacts of a product at every stage of its life, from manufacturing to use and disposal. For example, by using renewable and recycled materials, we are able to reduce the need for virgin raw materials. Life cycle assessments help us identify and focus on the areas where we can make the biggest contribution to reducing impacts. This assessment method has been externally audited. During a product's creation we focus on energy efficiency, sustainable use of materials and smart, sustainable packaging. We choose the materials for our products and packaging with the environment in mind.

*Reducing our environmental impact with mobile technology.* Nokia mobile devices are equipped with multiple functionalities; for instance many include a digital camera, music player, web browser, navigation, as well as several other features. This helps consumers reduce their own environmental footprint and avoid buying, using and charging several separate devices when one device can be used for many different purposes. Mobile devices can be used for attending meetings and working remotely, reducing the need for carbon-intensive business travel. Car navigation services help to save fuel by finding the shortest route.

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## **Table of Contents**

We have also launched a collection of eco applications in the Nokia Store. With applications such as the Climate Mission 3D game and the renewed People & Planet pages on our website, we help raise awareness about sustainable lifestyles, health, well-being and social responsibility. In addition, we have launched a Nokia Public Transport application which offers public transportation route planning in hundreds of cities all over the world. This application aims to raise awareness of environmentally sound public transportation as a journey option, and makes using public transportation easier.

*Energy-savings in our mobile products.* Over the last decade, we have reduced the no-load consumption of our chargers by over 80% and in our best-in-class chargers by over 95%. During 2011, we introduced two new energy efficient chargers, AC-11 and AC-16, replacing our older, less energy efficient chargers. Today, all new Nokia devices are being shipped with a four star or five-star charger.

We continue to reduce the charger no-load power consumption and are heading for the new target that is a 75% reduction by end of 2012 from the 2006 baseline. The charger no-load power consumption values are calculated as volume weighted average charger no-load power consumption for phone products per year.

*Reporting eco performance of our mobile products.* We provide eco declarations for older products, and in order to improve transparency in environmental matters, in May 2010, we started to provide enhanced eco profiles for all our new products containing information on their environmental impact. In addition, eco profiles contain basic information on the products' material use, energy efficiency, packaging, disassembly and recycling.

*Substance and materials management in our mobile products.* Our main objective is to know all the substances in our products, not just those that raise concerns. Our products must be safe for people and the environment when used in the proper way. All our mobile products and accessories worldwide are fully compliant with the EU Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (EU RoHS). Additionally, our products do not contain substances included in the current EU REACH Candidate List of Substances of Very High Concern, a subject which the EU REACH regulation requires to be reported.

We have also voluntarily phased out PVC from all mobile products and enhancements since 2006, and brominated and chlorinated compounds and antimony trioxide since the end of 2010, based on Nokia Substance List definitions. We offer relevant information about our substance management, including legal and our voluntary requirements, in the Nokia substance list available on our website.

*Packaging.* We continue to improve our packaging, increasing our use of renewable, paper-based materials to over 95% of total packaging materials. Our packages are 100% recyclable and each part is individually marked with ISO standard recycle markings. We do this everywhere, hoping that other companies will follow suit. To enable easy recycling, we choose not to combine plastic and paper materials into single components. In 2011, the Nokia N9 and the Nokia Lumia 800 sales packages were the first packages from Nokia to be made from materials certified by the FSC (Forest Stewardship Council).

*Take-back and recycling.* Connecting the next billion to the Internet and information through our mobile products is a critical opportunity for Nokia, but also a key concern in the sense that more products sold means more e-waste from old devices as well. Mobile products contain potentially hazardous materials, which can leak out into the environment in improper recycling practices such as landfill or open air burning. In addition, this e-waste contains valuable metals that can be recovered through proper recycling. Of the materials in a mobile device, 100% can be recovered and used to make new products or generate energy. These facts, combined with a finite supply of raw materials available for producing new phones, demonstrate that the end-of-life of mobile devices is a major issue that impacts across our industry.



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**Table of Contents**

We take part in collective recycling schemes with other equipment manufacturers in Europe, Canada and Australia. We also engage in local recycling awareness with retailers, operators, other manufacturers, authorities and various local partners in order to build a recycling culture around the world. Our take-back and recycling programs continue to expand into new markets, assuring that mobile products end up in environmentally safe recycling processes. At the end of 2011, we had approximately 6 000 collection points in almost 100 countries.

Our challenge is now to engage people to make recycling of mobile products easy and desirable, not just for our own customers, but for all consumers. By doing this, we are also helping to raise awareness and develop a recycling culture.

*Suppliers.* Our supply chain is extensive and complex and altogether we have thousands of direct and indirect suppliers. This gives us a great responsibility and we are committed to ensuring that the highest standard of environmental and social responsibility is exercised.

*Supplier requirements.* Our comprehensive set of Nokia Supplier Requirements provides clear guidance on what we expect from our suppliers. These requirements are updated on a regular basis, and they include environmental and social expectations, which are based on international standards such as ISO 14001, SA 8000, OHSAS18001, as well the People Capability Maturity Model, International Labour Organization and UN conventions. The Nokia Supplier Requirements are part of the contractual agreement with suppliers and accordingly all direct Nokia suppliers must follow them regardless of location or size. Our aim is to ensure that our suppliers provide safe working conditions, exercise good labor practices, use environmentally friendly manufacturing processes and aim to reduce the environmental impact of their own operations. In 2011, we updated the requirements and put some more emphasis on the environment, labor conditions, occupational health & safety, and ethics. We also included new requirements such as conflict mineral policy and conflict mineral due diligence with which suppliers must comply as of January 2012.

*Supplier performance.* To monitor supplier performance against our requirements and promote sustainability improvements, we conduct supplier self-assessments and on-site assessments. In 2011, we conducted 35 on-site assessments gaining a review of the supplier's complete processes and management system against the Nokia Supplier Requirements. We also conducted eight environmental & ethical in-depth assessments providing more insight into how a supplier is managing and performing against the ethics, environment, labor and health and safety requirements defined in the Nokia Supplier Requirements. In areas where risks were identified, suppliers have been requested to take corrective actions and we follow up on their improvements. To increase the visibility and in-depth understanding on environmental and social performance, we plan to increase the number of assessments. During 2011, 292 hardware supplier facilities were also self-assessed to evaluate the risk associated with environmental, labor, ethics and health & safety issues in their operations.

Assessments are only one of the tools we use to drive sustainable changes. Supplier training, face-to-face meetings and development programs are equally important. We also use a set of key environment and social performance indicators to generate sustained improvements. One of the performance indicators we track relates to the Code of Conduct policy of our suppliers. For 2011, we set a target to have visibility of the Code of Conduct policy and its implementation at all of our direct hardware suppliers. We found that 98% of our suppliers met our requirements, an improvement on 2010. Suppliers not meeting our expectations have been requested to make improvements. New metrics related to health, safety and labor issues were also implemented in 2011 and 97% of our strategically important hardware suppliers reported on these.

Over 50% of the energy consumption and greenhouse gas emissions a Nokia mobile product generates during its life cycle occur in the supply chain before the components reach our factories. Therefore it is important for us to work closely with our suppliers to reduce this environmental

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## **Table of Contents**

impact. In the supply chain, the environmental key areas are energy consumption, GHG emissions, waste generation, water use and recycling. At the end of 2011, 66% of our hardware suppliers that account for the highest environmental impact or are strategically important to us, had company-level reduction targets for energy, greenhouse gas emissions, water and waste in place and monitored (2010: 72%). This represents a slight decline in the amount of suppliers with reduction targets, compared to the end of 2010.

To drive systematic improvements in environmental performance, we also require suppliers to have Environmental Management Systems in place. In 2011, 91% of our direct hardware suppliers' sites serving Nokia were certified to ISO14001. Nokia's direct hardware suppliers have maintained a high level of certification since 2008.

*Ethical sourcing.* We take continuous action to ensure that our mobile products are manufactured with ethically-sourced materials. During 2011, we focused on further development of an industry-wide approach to ensure an accountable supply chain and strive for better traceability. Tracing the minerals and metals used in our mobile products is quite complex. There are typically four to eight supplier layers between Nokia and any mining activities. In all these layers, active work on increasing transparency to improve the overall traceability of metals and minerals is required. We aim to understand the commitments of each tier of the supply chain through dialogue both at an industry level and with stakeholders. We believe that an effective and sustainable solution requires that all companies using metals follow the same rules and apply the same practices.

In June 2011, we signed up to participate in the pilot implementation of OECD (Organization for Economic Cooperation and Development) Due Diligence Guidelines for responsible supply chain management of minerals from conflict affected and high-risk areas. The aim of the pilot is to share information and discern best practices with companies from other sectors and large conglomerates. A key factor in the guidance is taking a progressive approach to conducting due diligence and seeking to avoid boycotting of mining in countries like the Democratic Republic of Congo (DRC), where there are also legitimate mining activities, employing thousands. By incorporating the flexibility to allow trade to continue, the guidance promotes responsible sourcing.

In addition to the pilot project, we also support the smelter audit validation processes through Electronic Industry Citizenship Coalition (EICC) and Global e-Sustainability Initiative (GeSI) for tin, tantalum, tungsten and gold, as well as the recently introduced Minerals Reporting Template tool, a standardized template for assessing due diligence. The tool was developed to facilitate disclosure and communication of information regarding smelters that provide material to a company's supply chain. In late 2011, we also joined the Public-Private Alliance for Responsible Minerals Trade (PPA), a joint initiative between governments, companies, and civil society to support supply chain solutions to conflict minerals challenges in the DRC and the Great Lakes Region of Central Africa. While we want to ensure that our products are free of conflict minerals, we wish to avoid an embargo on Central Africa and support legitimate trade.

*Environmental management systems (EMS).* Our EMS is an integral part of our common global management structure. The international ISO14001 standard has been the foundation for our certified EMS for more than 15 years and it covers all of our manufacturing facilities. Its goal is to improve our environmental performance, focusing on energy consumption, waste management, water management and air emissions. We require a certified EMS according to ISO 14001 from our contract manufacturers, and a certified EMS from all our direct suppliers.

*Energy efficiency and emissions of our operations.* In 2011, our facilities consumed 72 GWh of direct and 530 GWh of indirect energy. This energy consumption caused 13 200 tons of direct and 251 800 tons of indirect greenhouse gas (CO<sub>2</sub>e) gross emissions. Direct energy means our use of gas and oil, while indirect energy refers to our use of electricity, district heating and district cooling. Our purchase of

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## **Table of Contents**

certified green energy reduced our indirect emissions by 54 100 tons, meaning that our net emissions were 210 900 tons. Nokia Group as a whole consumed 1 143 GWh energy, causing 535 700 tons of gross emissions and 421 300 tons of net emissions.

*Green energy purchases.* We have purchased renewable electricity via certificates and from grid since 2006. Now, our first onsite installations for the generation of renewable energy are in place: fuel cells at the Sunnyvale property in California in the United States and a small biofuel station at SEZ business park in Chennai, India. Altogether, in 2011 the share of renewable electricity was 193 GWh, which is equal to 40%.

*Business travel.* Since 2008, we have taken a stricter approach to business travel, including putting in place a new travel policy, running travel awareness campaigns, and improving the availability of videoconferencing facilities globally.

Our annual CO2 emissions from air travel were reduced by 36% in 2011 from the 2008 base level. CO2 emissions from air travel were 84 200 tons in 2011, which is 3% more than in 2010. The increase in travel resulted from organizational change and our partnership with Microsoft. The emissions figure covers 99% of our air travel and has been calculated with a conservative interpretation of GHG Protocol emission factors.

*Reducing waste.* In 2011, we caused a total of 45 900 ton of waste, a 23% reduction compared to 2010. We also managed to continue our decreasing trend of waste ending in landfill, as 91% of waste was reused or recycled, energy was recovered from 5%, and only 4% went for final disposal that is, either for landfill or was incinerated without energy recovery.

*Water usage.* Water is not a significant environmental issue for our own operations. Water is used mainly for sanitary and catering purposes, and to a smaller extent in gardening and facilities management, such as cooling towers. Production processes use relatively small amounts of water, under 1 000 liters per year in each factory. In 2011, we withdrew 1 309 000m<sup>3</sup> water for use in our facilities, of which 95% was withdrawn from municipal and 5% from ground water sources. 10% was recycled. Nokia Group as whole withdrew 2 019 000m<sup>3</sup> water.

### **Corporate Responsibility: Nokia Siemens Networks**

Nokia Siemens Networks has a sustainable approach to doing business, aiming to minimize the adverse impacts of its business while also maximising the positive impacts its products can have.

#### ***Impact on People: Nokia Siemens Networks***

*Supporting broad access to the benefits of information and communications technology.* Nokia Siemens Networks aims to support communities by increasing access to information and communications technology (ICT) and the benefits this can bring and using its technical expertise to contribute to disaster relief efforts.

*In 2011, Nokia Siemens Networks support focused on three areas:*

*Education related to ICT.* Nokia Siemens Networks contributed to ICT education with schools and universities, and supporting online programs focusing on particular issues such as promoting safer Internet use for young people.

*Disaster risk reduction and relief.* In cooperation with non-governmental organizations (NGOs), Nokia Siemens Networks strengthens the resilience of communities likely to be affected and works on finding technological solutions for disaster risk reduction and relief.

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**Table of Contents**

Nokia Siemens Networks provides technical expertise in the restoration of telecommunications, which is critical in the coordination of disaster relief efforts.

*Environment.* As part of Nokia Siemens Networks' commitment to the environment, the company has supported various activities and local-level projects to raise awareness about the role the ICT (information and communications technology) sector can play in supporting environmental goals.

During 2011, Nokia Siemens Networks continued to support programs in these areas through corporate donations and partnerships with reputable local or global charities such as Save the Children and WWF.

Nokia Siemens Networks encourages employees to get involved by volunteering their time and expertise. Many of them also volunteer to support a wide range of local programs that aim to connect the disadvantaged in their communities.

In 2011, Nokia Siemens Networks continued its collaboration with Professor Leonard Waverman from the London Business School and economic consulting firm LECCG, to produce the Connectivity Scorecard. The Connectivity Scorecard ranks economies around the world in terms of useful connectivity: to what extent are governments, businesses and consumers making use of ICT to enhance a country's social and economic prosperity.

*Nokia Siemens Networks values.* To enrich its culture, Nokia Siemens Networks has five values: focus on customer, communicate openly, innovate, inspire and win together. Every employee of Nokia Siemens Networks is responsible for adopting these principles and using them to guide their actions and behavior. The values serve as the cultural cornerstones of the company.

*Diversity and inclusion.* At December 31, 2011, 12% of senior management positions within Nokia Siemens Networks were held by women, while 54% of senior management positions were held by people of non-Finnish or non-German nationality. Senior management positions are defined in the same way at Nokia and Nokia Siemens Networks. During 2011, the rate of voluntary attrition—that is, the percentage of the workforce leaving the company voluntarily—was 10% at Nokia Siemens Networks.

*Training and development.* During 2011, Nokia Siemens Networks spent around EUR 54 million on training for employees. This equates to approximately EUR 815 per employee.

*Labor conditions.* At December 31, 2011, Nokia Siemens Networks had 2,244 employees working directly in production, including manufacturing, packaging and shipping, at its manufacturing facilities. Nokia Siemens Networks also employed over 10,000 people in operative tasks such as telecommunications infrastructure installation and field maintenance activities.

Nokia Siemens Networks' Global Labor Standard, based on International Labor Organization conventions and a standardized Industry Code of Conduct, and benchmarked against international labor laws and standards, is integrated into Nokia Siemens Networks' global employment policies and guidelines. The standard is aimed at ensuring decent working conditions at Nokia Siemens Networks' operations worldwide, and is supported by risk assessment processes relating to labor conditions and human rights.

*Nokia Siemens Networks Code of Conduct.* Nokia Siemens Networks launched an updated ethical business training program in October 2011, mandatory to all employees. By the end of 2011, 90% of employees had completed the training.

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## **Table of Contents**

Nokia Siemens Networks has an Ethics and Compliance office which supports its employees in making decisions that are ethical, legal and consistent with the company's values and code of conduct. Its focus is to prevent unethical behavior through training and awareness, to detect violations through different channels and mechanisms, to investigate and take corrective measures when violations occur and to work with the industry and wider community to promote ethical business practices. The Ethics and Compliance office has an email and Internet reporting tool for employees and external parties. Reporting of any violations can also be done anonymously. For all questions, reporting or advice relating to the Code of Conduct and ethical business practices at Nokia Siemens Networks, there will be a new helpline via telephone established in 2012.

*Product safety.* Product safety is a top priority for Nokia Siemens Networks.

Nokia Siemens Networks supports the move to harmonize global regulations on electromagnetic fields based on the widely recognized guidelines issued by the International Commission on Non-Ionizing Radiation Protection which are endorsed by the World Health Organisation. Nokia Siemens Networks engages with its stakeholders, including mobile network operators, to make them aware of electromagnetic field issues and provides information relating to compliant operation and the research into the effects of radio wave exposure on humans. Nokia Siemens Networks also engages openly in public discussions on the topic around the world and monitors the latest scientific studies on radio waves and health.

*Human rights.* In 2011, Nokia Siemens Networks worked on the implementation of its Human Rights Policy of freedom of expression and privacy. In mid-2011, an Industry Dialogue was initiated by Nokia Siemens Networks and a global operator, to explore the interaction and boundaries between the government's duty to protect human rights and a corporation's responsibility to respect human rights. The participating companies, a number of other telecommunications operators and vendors, aim to jointly develop and provide broadly-accepted principles, tools and due diligence mechanisms to help drive respect for privacy and freedom of expression. The participants are seeking input, ideas and feedback from a wide range of stakeholders at these very early stages of the dialog to ensure that its work is built on a good understanding of stakeholder expectations, rather than industry principles developed in isolation.

### ***Impact on the Environment: Nokia Siemens Networks***

*Environmental strategy.* Nokia Siemens Networks' environmental strategy has three key elements:

Operating more efficiently;

Designing products and services with the environment in mind that help telecoms operators reduce the environmental impact of their networks; and

Making a positive impact with solutions that improve productivity and efficiency beyond the ICT sector.

Nokia Siemens Networks continues to offer an exceptionally comprehensive range of energy solutions for telecoms operators, combining products and services. Its portfolio is designed to reduce the network operating costs of new and legacy telecommunications networks, with solutions which can reduce power consumption and the resultant GHG (greenhouse gas) emissions by exploiting more efficient technology and renewable energy.

By the end of 2011, Nokia Siemens Networks had applied energy efficient measures to more than 2 000 radio mobile broadband sites.

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**Table of Contents**

*Reducing our environmental impact.* Nokia Siemens Networks has set targets for improving the environmental performance of its products and its facilities and will continue to set progressively more demanding targets on an ongoing basis. Nokia Siemens Networks has been a member of the WWF Climate Savers program since June 2008, and is well on track to meet its commitment to improving the energy efficiency of base station products by up to 40% by 2012, and reducing energy consumption of buildings by 6% by 2012. Nokia Siemens Networks has progressively transitioned to renewable energy with over 50% of all energy being provided from certified renewable sources. The emissions avoided by these actions amount to approximately 2 million tons of CO2 annually compared to the 2007 base level.

In 2011, Nokia Siemens Networks has highlighted the positive environmental impact that information technology solutions can have in other industry sectors. Nokia Siemens Networks is offering solutions for the utilities sector with smart grids and improved energy management solutions.

*Environmental management systems.* During August 2011, Nokia Siemens Networks completed its drive to achieve a company-wide ISO 14001 certification, an internationally recognized standard for environmental management systems. The certification reflects that Nokia Siemens Networks has a sound understanding of the environmental impact caused by its activities and is committed to reducing its environmental impact.

*Suppliers.* All Nokia Siemens Networks suppliers must meet Nokia Siemens Networks' global supplier requirements, which set standards for the management of ethical, environmental and social issues. This commitment is part of the contractual agreements with suppliers.

To monitor its suppliers, Nokia Siemens Networks conducts regular audits to identify risks, monitor compliance and raise awareness of its requirements, and shares best practice on corporate responsibility management. In 2011, Nokia Siemens Networks carried out 121 on-site system audits to assess compliance with its supplier requirements. Nokia Siemens Networks increased the number of in-depth labor conditions audits to 17 suppliers in 2011.

Nokia Siemens Networks environmental requirements state that suppliers need to have documented Environmental Management Systems (EMS) in place. A site-level review in 2011 by Nokia Siemens Networks' top 350 suppliers to whom the EMS alignment to ISO 14001 or such a certification is applicable showed that 60% of these sites have documented EMS in place and 55% are certified to ISO 14001. The top 350 suppliers represented approximately 74% of Nokia Siemens Networks' total supplier expenditure in 2011. 17% of Nokia Siemens Networks' suppliers by expenditure have set reduction targets for energy efficiency. Nokia Siemens Networks invited 92 suppliers to join its Energy Efficiency program in 2011 and has rolled out the Carbon Disclosure Project tool to track suppliers' progress on energy efficiency.

The annual Nokia Siemens Networks supplier satisfaction survey was conducted with 330 key suppliers. The overall rating for Nokia Siemens Networks' requirements on business ethics when dealing with suppliers was 8.1 on a scale of 1-10 where 1 represents that Nokia Siemens Networks is not strict at all on its requirements and 10 very strict. Based on the feedback of this survey, Nokia Siemens Networks considers that the basic requirements are understood well by the majority of its suppliers, and that suppliers find the requirements to be strict.

In 2011 Nokia Siemens Networks held workshops on labor conditions and environmental protection for a total of 115 persons representing supplier management of 76 suppliers participating in Nigeria, South Africa, India, PR China and in Taiwan. Nokia Siemens Networks also continued to roll out an industry-wide web-based corporate responsibility training program for its suppliers.

**Table of Contents**

Of Nokia Siemens Networks global procurement staff, 72% had received corporate responsibility training by the end of 2011 and 96% had completed the annual ethical business training.

Nokia Siemens Networks continues to work actively with other industry participants to improve standards in the information and communications technology (ICT) supply chain through groups such as the GeSI. By the end of 2011, 24 key suppliers representing 17% of Nokia Siemens Networks supplier expenditure had joined E-TASC, a common industry supplier assessment and auditing tool developed by the GeSI and EICC. The average corporate score for these suppliers is 91% and the average facility score 90%.

In 2011, Nokia Siemens Networks implemented further a corporate responsibility risk assessment tool based on the Maplecroft risk indices. Nokia Siemens Networks does not accept the use of any conflict minerals in its products and has developed a Conflict Minerals policy with the target to improve both the traceability of minerals and the transparency of global supply chains. Work in 2011 focused on developing an industry wide tool on due diligence, and the due diligence process will be conducted in 2012, starting with Tantalum users.

**4C. Organizational Structure**

The following is a list of Nokia's significant subsidiaries at December 31, 2011. See also, Item 4A. History and Development of the Company Organizational Structure and Reportable Segments .

<b>Company</b>	<b>Country of Incorporation</b>	<b>Nokia Ownership Interest</b>	<b>Nokia Voting Interest</b>
Nokia Inc.	United States	100%	100%
Nokia GmbH	Germany	100%	100%
Nokia UK Limited	England & Wales	100%	100%
Nokia TMC Limited	South Korea	100%	100%
Nokia Telecommunications Ltd.	China	83.9%	83.9%
Nokia Finance International B.V.	The Netherlands	100%	100%
Nokia Komárom Kft	Hungary	100%	100%
Nokia India Pvt. Ltd.	India	100%	100%
Nokia Italia S.p.A	Italy	100%	100%
Nokia Spain S.A.U.	Spain	100%	100%
Nokia Romania S.R.L.	Romania	100%	100%
Nokia do Brasil Tecnologia Ltda	Brazil	100%	100%
OOO Nokia	Russia	100%	100%
NAVTEQ Corporation	United States	100%	100%
Nokia Siemens Networks B.V.	The Netherlands	50% <sup>(1)</sup>	50% <sup>(1)</sup>
Nokia Siemens Networks Oy	Finland	50%	50%
Nokia Siemens Networks GmbH & Co KG	Germany	50%	50%
Nokia Siemens Networks Pvt. Ltd.	India	50%	50%

- (1) Nokia Siemens Networks B.V., the ultimate parent of the Nokia Siemens Networks group, is owned approximately 50% by each of Nokia and Siemens and consolidated by Nokia. Nokia effectively controls Nokia Siemens Networks as it has the ability to appoint key officers and the majority of the members of its Board of Directors and, accordingly, Nokia consolidates Nokia Siemens Networks.

**4D. Property, Plants and Equipment**

At December 31, 2011, we operated eight manufacturing facilities in seven countries for the production of Nokia-branded mobile devices, and Nokia Siemens Networks had ten manufacturing facilities in four

**Table of Contents**

countries. We consider the production capacity of our manufacturing facilities to be sufficient to meet the requirements of our devices and networks infrastructure business. The extent of utilization of our manufacturing facilities varies from plant to plant and from time to time during the year. None of these facilities is subject to a material encumbrance.

The following is a list of the location, use and capacity of major manufacturing facilities for Nokia mobile devices and Nokia Siemens Networks infrastructure equipment at December 31, 2011. In connection with the implementation of our new strategy for our Devices & Services business, we have announced a number of changes to our operations resulting in the closure in 2011 and planned closure and reconfiguration of certain Nokia facilities. See, Item 4B. Business Overview Devices & Services and Location & Commerce Production.

Country	Location and Products	Productive Capacity, Net (m <sup>2</sup> ) <sup>(1)</sup>
BRAZIL	Manaus: mobile devices	10 459
CHINA	Beijing: mobile devices	23 421
	Dongguan: mobile devices	33 707
	Beijing: switching systems	6 748
	Shanghai: base stations, broadband access systems, transmission systems	14 605
	Suzhou: base stations	8 740
	Tianjin: Wireless base stations, mobile core systems, radio controllers, broadband access equipment	18 700
	Hangzhou: Wireless base stations, mobile core systems, radio controllers, broadband access equipment	35 600
FINLAND	Salo: mobile devices	14 142
	Oulu: base stations	16 000
GERMANY	Berlin: optical transmission systems	15 655
	Bruchsal: switching systems, transmission systems, broadband access systems	20 797
HUNGARY	Komárom: mobile devices	28 057
INDIA	Chennai: mobile devices	30 957
	Chennai: base stations and radio controllers, microwave radio products.	12 893
	Kolkata: fixed switching	3 457
MEXICO	Reynosa: mobile devices	7 800
REPUBLIC OF KOREA	Masan: mobile devices	21 181

(1) Productive capacity equals the total area allotted to manufacturing and to the storage of manufacturing-related materials.

**ITEM 4A. UNRESOLVED STAFF COMMENTS**

Not applicable.



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**Table of Contents**
**ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS****5A. Operating Results**

This section begins with an overview of the principal factors and trends affecting our results of operations. The overview is followed by a discussion of our critical accounting policies and estimates that we believe are important to understanding the assumptions and judgments reflected in our reported financial results. We then present an analysis of our results of operations for the last three fiscal years.

We adopted our current operational structure during 2011 and have three businesses: Devices & Services, Location & Commerce and Nokia Siemens Networks. As of April 1, 2011, our Devices & Services business includes two operating and reportable segments – Smart Devices, which focuses on smartphones, and Mobile Phones, which focuses on mass market feature phones – as well as Devices & Services Other. Devices & Services Other includes net sales of our luxury phone business Vertu, spare parts and related cost of sales and operating expenses, as well as intellectual property related royalty income and common research and development expenses.

Location & Commerce focuses on the development of location-based services and local commerce. NAVTEQ, which we acquired in July 2008, was a separate reportable segment of Nokia from the third quarter 2008 until the end of the third quarter of 2011. As of October 1, 2011, the Location & Commerce business was formed as a new operating and reportable segment by combining NAVTEQ and our Devices & Services social location services operations.

For IFRS financial reporting purposes, we have four operating and reportable segments: Smart Devices and Mobile Phones within Devices & Services, Location & Commerce and Nokia Siemens Networks. Prior period results have been regrouped and recast for comparability purposes according to the new reporting format that became effective on April 1, 2011 and October 1, 2011, respectively.

For a description of our organizational structure see Item 4A. History and Development of the Company – Organizational Structure and Reportable Segments . Business segment data in the following discussion is prior to inter-segment eliminations. See Note 2 to our consolidated financial statements included in Item 18 of this annual report. The following discussion should be read in conjunction with our consolidated financial statements included in Item 18 of this annual report, Item 3D. Risk Factors and Forward-Looking Statements . Our financial statements have been prepared in accordance with IFRS.

**Principal Factors & Trends Affecting our Results of Operations*****Devices & Services***

Devices & Services is responsible for developing and managing our portfolio of mobile products, which we make for all major consumer segments, as well as designing and developing services, including applications and content, that enrich the experience people have with their mobile devices. Devices & Services also manages our supply chains, sales channels, brand and marketing activities and explores corporate strategic and future growth opportunities for Nokia.

In 2011, the global mobile device market benefited from continued strength in key growth markets, such as the Middle East and Africa, Greater China and Latin America and, according to our estimate, industry mobile device volumes increased by 11% during the year. Smartphones continued to capture the major part of the volume and value growth, as well as the public focus, in the mobile device market. We estimate that our mobile device volume market share was 26% in 2011, compared to an estimated 32% in 2010, with the decline primarily driven by market share losses in the smartphones segment.

In February 2011, we announced our new strategy for our Devices & Services business, which has three core elements.

## Table of Contents

First, in smartphones, we announced our partnership with Microsoft, discussed below, to bring together our respective complementary assets and expertise to build a new global mobile ecosystem for smartphones. Under the partnership, formalized in April 2011, we are adopting and licensing Windows Phone from Microsoft as our primary smartphone platform. We launched our first Nokia products with Windows Phone under the Lumia brand in October 2011.

Second, in feature phones, our strategy continues to be to leverage our innovation and strength in growth markets to connect the next billion people to the Internet and information. Through our investments in developing assets designed to bring a modern mobile experience software, services and applications we believe we have the opportunity to connect the next billion aspirational consumers around the world to the Internet and information, especially in key emerging markets.

Third, we believe we must also invest to take advantage of future technology disruptions and trends. Through ongoing research and development, we plan to explore and lead next-generation opportunities in devices, platforms and user experiences to support our industry position and longer-term financial performance.

In the following sections, we describe the factors and trends that we believe are currently driving our Devices & Services net sales and profitability.

### *Transition*

Year 2011 was a year of transition for Nokia. Prior to the announcement of our partnership with Microsoft in February 2011 and the adoption of Windows Phone as our primary smartphone platform, the Symbian and MeeGo operating systems were our primary smartphone platforms. Following our announcement of the Microsoft partnership, we expected to sell approximately 150 million more Symbian devices in the years to come and to ship one MeeGo device. However, the demand for our Symbian devices began to deteriorate. The consequent decline in our Smart Devices net sales and profitability was a result of both a decline in our Symbian smartphone volume market share and pressure on pricing as competitors aggressively capitalized on our platform and product transition. Towards the end of 2011, the competitiveness of our Symbian devices continued to deteriorate as changing market conditions created increased pressure on Symbian, which further adversely affected our Smart Devices net sales, profitability, market share and brand perception. In certain markets, there has been an acceleration of the trend towards lower-priced smartphones with specifications that are different from Symbian's traditional strengths, which has contributed to a faster decline in our Symbian volumes than we anticipated. We expect this trend to continue in 2012.

To endeavor to maximize the value of our Symbian asset going forward, we expect to continue to ship Symbian devices to specific regions and distribution channels, as well as to continue to provide software support to our Symbian customers, through 2016. The software support for our Symbian customers was outsourced to Accenture commencing from September 2011. As a result of the changing market conditions, combined with our increased focus on Nokia products with Windows Phone, we believe we will sell fewer Symbian devices than previously anticipated.

Towards the end of 2011, we launched the Nokia Lumia 800 and Nokia Lumia 710, our first smartphones based on the Windows Phone platform. During 2011, we also launched the Nokia N9, which was the outcome of efforts in our MeeGo program. Since the start of 2012, we have continued to bring the Lumia experience to several more geographies, including the United States, where we have launched the Nokia Lumia 900, the first LTE device designed specifically for the North American market, which is available exclusively through AT&T. In late February 2012, we announced our intention to bring the Lumia 900 to markets outside the United States and introduced the Lumia 610, our lowest cost Lumia smartphone to date.

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**Table of Contents**

During the first half of 2011, our mobile device market share decline was further negatively affected by weakness in our feature phone portfolio primarily due to a lack of a dual SIM offering. During the second half 2011, however, the competitiveness of our feature phones improved when we introduced several dual SIM devices, as well as the new Nokia Asha range of feature phones, which offers a more smartphone-like user experience. These new additions helped us recapture some market share in the feature phone segment.

Year 2012 is expected to continue to be a year of transition, during which our Devices & Services business will be subject to risks and uncertainties, as our Smart Devices business unit continues to transition from Symbian products to Nokia products with Windows Phone and our Mobile Phones business unit continues to bring more smartphone-like features and design to our feature phone portfolio. Those risks and uncertainties include, among others, continued deterioration in demand for our Symbian devices; the timing, ramp-up and demand for our new products, including our Lumia devices; further pressure on margins as competitors endeavor to capitalize on our platform and product transition; and uncertainty in the macroeconomic environment. Mainly due to these factors, we believe that it is not appropriate to provide annual financial targets for 2012.

Longer-term, we target:

Devices & Services net sales to grow faster than the market, and

Devices & Services operating margin to be 10% or more, excluding special items and purchase price accounting related items.

*Microsoft Partnership*

In February 2011, we announced our partnership with Microsoft to bring together our respective complementary assets and expertise to build a new global mobile ecosystem for smartphones. The partnership, under which we are adopting and licensing Windows Phone from Microsoft as our primary smartphone platform, was formalized in April 2011.

We are contributing our expertise on hardware, design and language support to the Microsoft partnership, and plan to bring Nokia products with Windows Phone to a broad range of price points, market segments and geographies. We and Microsoft are closely collaborating on joint marketing initiatives and on a shared development roadmap on the future evolution of mobile products. The goal for both partners is that by bringing together our complementary assets in search, maps, location-based services, e-commerce, social networking, entertainment, unified communications and advertising, we can jointly create an entirely new consumer proposition. We are also collaborating on our developer ecosystem activities to accelerate developer support for the Windows Phone platform on our mobile products. Although Microsoft will continue to license Windows Phones to other mobile manufacturers, the Microsoft partnership allows us to customize the Windows Phone platform with a view to differentiating Nokia smartphones from those of our competitors that also use the Windows Phone platform.

Specific initiatives include the following:

Contribution of our mapping, navigation, and certain location-based services to the Windows Phone ecosystem. We aim to build innovation on top of the Windows Phone platform in areas such as imaging, while contributing our expertise on hardware design and language support, to help drive the development of the Windows Phone platform. Microsoft will provide Bing search services across our mobile device portfolio and will contribute its strength in productivity tools, advertising, gaming, social media and a variety of other services. We believe that the combination of navigation with advertising and search services will enable better monetization of our navigation assets and create new forms of advertising revenue.

**Table of Contents**

Joint developer outreach and application sourcing to support the creation of new local and global applications, including making Windows Phone developer registration free for all Nokia developers.

Planning towards opening a new Nokia-branded global application store that leverages the Windows Marketplace infrastructure. Developers would be able to publish and distribute applications to hundreds of millions of consumers that use Windows Phone, Symbian and Series 40 devices.

Contribution of our expertise in operator billing to ensure participants in the Windows Phone ecosystem can take advantage of our billing relationships with 112 operators in 36 markets.

We are paying Microsoft a software royalty fee to license the Windows Phone smartphone platform, which we record as royalty expense in our Smart Devices cost of goods sold. We have a competitive software royalty structure, which includes annual minimum software royalty commitments and reflects the large volumes that we expect to ship, as well as a variety of other considerations related to engineering work to which both companies are committed. We expect that the adoption of Windows Phone will enable us to reduce significantly our operating expenses. For example, the Microsoft partnership allows us to eliminate certain research and development investments, particularly in operating systems and services, which we expect will result in lower overall research and development expenditure over the longer-term for our Devices & Services business.

In recognition of the contributions that we are providing, we will receive quarterly platform support payments from Microsoft. In the fourth quarter of 2011, we received the first quarterly payment of USD 250 million (approximately EUR 180 million). We have started to recognize a portion of the platform support payments as a benefit to our Smart Devices cost of goods sold. The total amount of the platform support payments is expected to slightly exceed the total amount of the minimum software royalty commitments.

The Microsoft partnership also recognizes the value of intellectual property and puts in place mechanisms for exchanging intellectual property rights.

*Continued Convergence of the Mobile Communications, Computing, Consumer Electronics and Internet Industries*

Value in the mobile handset industry continues to be increasingly driven by the convergence of the mobile communications, computing, consumer electronics and Internet industries. As consumer demand and interest for smartphone and tablets with access to a range of content has accelerated, new opportunities to create and capture value through innovative new service offerings and user experiences have arisen, with a greater emphasis and importance on software and ecosystem-driven innovation, rather than standalone devices. These opportunities seek to capitalize on various elements of ecosystems such as search services, maps, location-based services, e-commerce, social networking, entertainment, communications and advertising. Capturing these opportunities requires capabilities to manage the increased complexity and to provide an integrated user experience where all these various elements interact seamlessly either in one device or across multiple devices and electronic products. We expect these new opportunities to continue to emerge in 2012. We believe that we are well-positioned with our new strategy and partnership with Microsoft, including our collective goal to build a new global mobile ecosystem for smartphones, to capture a number of these opportunities. In Mobile Phones, we plan to leverage our innovation and strength in growth markets to connect the next billion people to the Internet and information. We also plan to drive third party innovation through working with our partners to engage in building strong, local ecosystems for our feature phones.

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**Table of Contents**

*Increasing Importance of Competing on an Ecosystem to Ecosystem Basis*

The increasing importance of ecosystems is, to a large degree, driven by the convergence trends mentioned above and the implications for the competencies and business model adjustments required for longer-term success. In the market for smartphones, we have seen significant momentum and emphasis on the creation and evolution of new ecosystems around major software platforms, including Apple's iOS platform and Google's Android platform, bringing together devices, software, applications and services. A notable recent development has been the increased affordability of devices based on the Android smartphone platform, which has enabled them to compete with a portion of the market that has traditionally been dominated by feature phone offerings. As Android is available free of charge and a significant part of the source code is available as open source software, entry and expansion in the smartphone market has become easier for a number of hardware manufacturers that have chosen to join Android's ecosystem. Additionally, the success of an ecosystem and its ability to continue to grow may also depend on the support it lends to different kinds of devices. With multiple products available to suit different needs, such as mobile devices, tablets, computers and televisions, there is demand for greater seamless interaction between these devices. A number of vendors across different ecosystems are pursuing multi-screen strategies to capitalize on these opportunities.

Our partnership with Microsoft brings together complementary assets and competencies with the aim of creating a competitive smartphone ecosystem. We believe that together with Microsoft we will succeed in attracting the necessary elements for the creation of a successful ecosystem and that by extending the price points, market segments and geographies of our Windows Phone smartphones, we will be able to significantly strengthen the scale and attractiveness of that ecosystem to developers, operators and partners.

*Increased Pervasiveness of Smartphones and Smartphone-like Experiences Across the Price Spectrum*

During the past year, we saw the increasing availability of more affordable smartphones, particularly Android-based smartphones, connected devices and related services which were able to reach lower price points contributing to a decline in the average selling prices of smartphones in our industry.

This trend affects us in two ways. First, it puts pressure on the price of our smartphones and potentially our profitability, as we need to price our smartphones competitively. We currently partially address this with our Symbian device offering in specific regions and distribution channels, and we plan to introduce and bring to markets new and more affordable Nokia products with Windows Phone in 2012, such as the Nokia Lumia 610 announced in February 2012. Second, lower-priced smartphones put pressure on our higher-end feature phone offering from our Mobile Phones unit. We are addressing this with our planned introductions in 2012 of smarter, competitively priced feature phones with more modern user experiences, including software, services and application experiences. In support of our Mobile Phones business, we also plan to drive third party innovation through working with our partners to engage in building strong, local ecosystems.

*Increasing Challenges of Achieving Sustained Differentiation and Impact on Overall Industry Gross Margin Trends*

Although we expect the mobile device industry to continue to deliver attractive revenue growth prospects, we are less optimistic about the gross margin trends going forward. The creation and momentum of new ecosystems, especially from established Internet players with disruptive business models, has enabled handset vendors that do not have substantial software expertise or investment in software development to develop an increasingly broad and affordable range of smartphones and other connected devices that feature a certain user interface, application development and mobile service ecosystems. At the same time, this has significantly reduced the amount of differentiation in the

## **Table of Contents**

user experience in the eyes of consumers. Our ability to achieve sustained differentiation with our mobile products is a key driver of consumer retention, net sales growth and margins. We believe that as it becomes increasingly difficult for many of our competitors to achieve sustained differentiation, overall industry gross margin trends may be depressed going forward.

Through our partnership with Microsoft and development of the Windows Phone ecosystem, we will focus more of our investments in areas where we believe we can differentiate and less on areas where we cannot, leveraging the assets and competencies of our ecosystem partners. Areas where we believe we can achieve sustained product differentiation and leadership include distinctive design with compelling hardware, leading camera and other sensor experiences and leading location-based products and services. Other ways for us to differentiate our products include using our localization capabilities, global reach, strong brand and marketing. We believe that our first Lumia devices reflect a number of these new and differentiated experiences on Windows Phone. We expect to continue to introduce new and more differentiated products from our Lumia product family in multiple markets throughout 2012.

In the Mobile Phones business, we believe our competitive advantages including our scale, brand, quality, manufacturing and logistics, strategic sourcing and partnering, distribution, research and development and software platforms and intellectual property continue to be important to our competitive position. Additionally, we plan to extend our Mobile Phones offerings and capabilities during 2012 in order to bring a modern mobile experience software, services and applications to aspirational consumers in key growth markets as part of our strategy to bring the Internet and information to the next billion people. At the same time, we plan to drive third party innovation through working with our partners to engage in building strong, local ecosystems.

Finally, we believe that we must invest in new projects to drive differentiation and take advantage of future technology disruptions and trends. Through ongoing research and development, we plan to explore and lead next-generation opportunities in devices, platforms and user experiences to support our industry position as well as our ability to further differentiate over the longer-term. For example, new web technologies such as those commonly referred to as HTML5 may lead to less operating system-centric ecosystems. It is important to be able to drive such industry developments, which we believe will define the future of our industry.

### *Emergence of New Business Models*

We believe that the traditional industry monetization model capturing the value of the overall experience through the sale of a mobile device will continue to dominate in the near to medium term. However, we are also seeing the emergence of new indirect monetization models where the value is captured through indirect sources of revenue such as advertising revenue through applications rather than the actual sale of a device. These indirect monetization models could become more prominent in our industry in the longer-term. Accordingly, we believe that developing a range of indirect monetization opportunities, such as advertising-based business models, will be part of successful ecosystems over the coming years. Obtaining and analyzing a complex array of customer feedback, information on consumer usage patterns and other personal and consumer data over the largest possible user-base is essential in gaining greater consumer understanding. We believe this understanding is a key element in developing new monetization opportunities and generating new sources of revenue, as well as in facilitating future innovations, including the delivery of new and more relevant user experiences ahead of the competition.

The exploration of new revenue streams is a key element of our partnership with Microsoft. We are jointly developing new services with Microsoft to drive innovation and new sources of revenue from our ecosystem. We believe that our ability to understand the specific needs of different geographic markets

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## **Table of Contents**

and consumer segments and to localize services and applications appropriately will be a key competitive differentiator. To support this, in the coming years we plan to invest in local advertising platforms to further enhance and enrich our localized offerings. Supported by our scale, we believe that we have the opportunity to deliver more compelling and relevant local services and to build new monetization models for Nokia and the Windows Phone ecosystem.

### *Supply Chain, Distribution and Operator Relationships*

The industry in which we operate is one of the fastest growing and most innovative, with a broad range of industry participants contributing product and technological innovations. In particular, the role of component suppliers has grown in importance. At the same time, much of the value creation for consumers has shifted from hardware to software. Nevertheless, we believe that there continues to be substantial room to innovate in hardware. From that perspective and in order to deliver market-leading innovations and sustainable differentiation through hardware, it is critical to have good relationships with high quality suppliers. With good supplier relationships, allied with the strength of our world-class manufacturing and logistics system, we believe we are well-positioned to deliver high-quality hardware as well as to respond quickly to customer and consumer demand.

Amid rapid change in the industry, we have also seen new sourcing models emerge. Especially in smartphones, our competitors have shifted from traditional multi-sourcing strategies where you have multiple suppliers for each component, to more focused sourcing strategies where they integrate key strategic suppliers closer to their operations as well as use advance cash payments to secure supply for several quarters in advance in order to have more unique and differentiated components as well as more predictability in their sourcing. This means that we also need to look for new and more innovative ways of sourcing key components, particularly in our Smart Devices business.

Our own manufacturing network continues to be a valuable asset, especially in our high-volume Mobile Phones business. We realized, however, that we need to adjust our manufacturing to meet the lower overall demand for our products and increase our speed to market for our mobile products. In 2011 and in February 2012, we announced our plans to adjust our manufacturing capacity and renew our manufacturing strategy to focus product assembly primarily in Asia to better reflect how our global networks of customers, partners and suppliers have evolved. The changes included the closure of our manufacturing facility in Cluj, Romania at the end of 2011. We also announced planned changes at our facilities in Komárom, Hungary, Reynosa, Mexico and Salo, Finland. These three facilities are planned to focus on smartphone product and sales package customization, serving customers mainly in Europe and the Americas, while our smartphone assembly operations will be transferred to our facilities in Asia—Beijing, China and Masan, South Korea—where the majority of our component suppliers are based. With these adjustments to our manufacturing network, we are aiming to continue to generate meaningful benefits relative to our competitors.

As in any global consumer business, distribution continues to be an important asset in the mobile device industry. We believe the breadth of our global distribution network is one of our key competitive advantages. We have the industry's largest distribution network with more than 850 000 points of sale globally. Compared to our competitors, we have a substantially larger distribution and care network, particularly in China, India and the Middle East and Africa.

During 2011, the importance of operator-driven distribution increased. Whereas in the past operators dominated distribution only in the large western markets in Europe and the United States, they have recently been growing their share of distribution in large growth markets such as China, a traditionally strong market for us. We have been historically more successful where our mobile products are sold to consumers in open distribution through non-operator parties. It is therefore increasingly important to not only have a large number of points of sale globally, but also to have good relationships with key operators in each region.

## **Table of Contents**

Strategically, we want to be the preferred ecosystem partner for operators. By creating a new global mobile ecosystem with Microsoft and focusing on driving operator data plan adoption in lower price points with our feature phone offering, we believe we will be able to create a greater balance for operators and provide attractive opportunities to share the economic benefits from services and applications sales compared to other competing ecosystems, thereby improving our long-standing relationships with operators around the world.

### *Speed of Innovation, Product Development and Execution*

As the mobile communications industry continues to undergo significant changes, we believe that speed of innovation and product development are important drivers of competitive strength. For example, a number of our competitors have been able to successfully leverage their software expertise to continuously bring innovations to market at a pace faster than typical hardware cycles. This has placed increasing pressure on all industry participants to continue to shorten product creation cycles and to execute in a timely, effective and consistent manner.

In February 2011, we announced our new strategy, including changes to our operational structure, company leadership, decision-making, ways of working and competencies designed to accelerate our speed of execution in an intensely competitive environment. The changes to our ways of working fall into six categories: globally accountable business units; a revised services mission; local empowerment; simplified decision-making; a performance-based culture with consistent behavior; and a new leadership structure with new leadership principles. We believe under the new operational structure and with these new ways of working we can deliver noticeable improvements to our speed of innovation, product development and execution of both our Smart Devices and Mobile Phones business units.

### *More Active Licensing Strategies of Patents and Intellectual Property*

Success in our industry requires significant research and development investments, with intellectual property rights filed to protect those investments and related inventions. In recent years, we have seen new entrants in the industry as new ecosystems have lowered the barriers to entry. In 2011, we saw intensified and more active licensing and enforcement strategies of patents and intellectual property emerge through a series of legal disputes between several industry participants as patent holders sought to protect their intellectual property against infringements by new entrants. It is not only traditional industry participants that have sought to safeguard their intellectual property; non-manufacturing patent licensing entities owning relevant technology patents have also actively been enforcing their patents against new entrants. These companies' sole business model is to buy patents from the innovators and to maximize the value from those patents. As a result, the industry's focus on patents and intellectual property has increased significantly and patent portfolios have become increasingly valuable for industry participants. Increased activity has also created lucrative opportunities to monetize patents by selling them to others. We expect this trend to continue in 2012. We believe we are well-positioned to both protect our existing business as well as generate incremental value to our shareholders through our industry-leading patent portfolio.

We are a world leader in the development of mobile devices and mobile communications technologies, which is also demonstrated by our strong patent position. During the last two decades, we have invested more than EUR 45 billion in research and development and built one of the mobile device industry's strongest and broadest intellectual property right portfolios, with over 10 000 patent families. In 2011, we continued to work hard to enforce our patents against unlawful infringement and realize the value of our intellectual property. Our 2011 initiatives included, among other things, the signing of a patent license agreement with Apple, which we expect will have a positive financial impact on our future business, as well as capitalizing on strong market conditions by divesting several hundred patent



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**Table of Contents**

families in a series of transactions to non-manufacturing patent licensing entities. Despite such divestments, we have maintained the strength and size of our patent portfolio on a stable level of approximately 10 000 patent families.

*Uncertain Global Macroeconomic Environment*

We are currently experiencing a time of great global macroeconomic uncertainty. This uncertainty can cause unprecedented and dramatic shifts in consumer behavior, which can have significant effects on the mobile device industry. These effects could include, for example, consumers reducing the amount they are willing to spend on mobile products, which would negatively affect industry average selling prices, or consumers postponing purchases of new products, which would negatively affect device replacement cycles. These types of shifts in consumer behavior could potentially have a material adverse effect on our net sales and profitability in 2012.

While negative to the industry overall, we believe that the impact of any dramatic shifts in consumer behavior could be mitigated to a certain extent by our global distribution network, geographically well diversified supply-chain, relatively fragmented customer space and the breadth of our offering, which covers a wide range of price points. Furthermore, during our ongoing transition to Windows Phone as our primary smartphone platform our financial position has continued to be relatively strong. We continuously monitor the strength of our financial position and assess its adequacy in different net sales and profitability scenarios.

Additionally, we have identified and implemented certain precautionary measures designed to limit the possible immediate direct negative consequences resulting from the potential deterioration of the economic situation within the eurozone.

*Operational Efficiency and Cost Control*

The factors and trends discussed above influence our net sales and gross profit potential. In addition, operational efficiency and cost control are important factors affecting our profitability and competitiveness. We continuously assess our cost structure and prioritize our investments. Our objective remains to maintain our strong capital structure, focus on profitability and cash flow and invest appropriately to innovate and grow in key strategic areas.

We expect that the adoption of Windows Phone as our primary smartphone platform will enable us to reduce significantly our operating expenses. For example, the Microsoft partnership allows us to eliminate certain research and development investments, particularly in operating systems and services, which we expect will result in lower overall research and development expenditures over the longer-term in our Devices & Services business.

We announced in 2011 that we are targeting to reduce our Devices & Services operating expenses by more than EUR 1 billion for the full year 2013, compared to the Devices & Services operating expenses of EUR 5.35 billion for the full year 2010, excluding special items and purchase price accounting related items.

We have announced a number of planned changes to our operations during 2011 and 2012 in connection with the implementation of our new strategy in our Devices & Services business and the creation of our new Location & Commerce business. The planned changes include substantial personnel reductions, site and facility closures and reconfiguration of certain facilities.

Initially, we announced that we are focusing our restructuring work primarily on the research and development teams to ensure that we correctly allocate resources for the new strategy at appropriate cost levels. In addition, we agreed to outsource our Symbian software development and support activities to Accenture, which resulted in the transfer of approximately 2 300 employees to Accenture.

We later announced that we are accelerating structural change in other parts of the organization in order to ensure that we are responsive to the changing dynamics in our industry. This phase includes

## **Table of Contents**

the alignment of our markets organization and other supporting functions. For sales, this includes a move to simplify our model based around four regions, twenty areas and additional local offices that serve individual countries or territories.

We also announced plans to adjust our manufacturing capacity and renew our manufacturing strategy to reflect how our global networks of customers, partners and suppliers have evolved, including the closure of our facility in Cluj, Romania, the review of our manufacturing operations in Komárom, Hungary, Reynosa, Mexico and Salo, Finland and the transfer of smartphone assembly operations to Beijing, China and Masan, South Korea.

With respect to combining NAVTEQ and our Devices & Services social location services operations to form our Location & Commerce business, we announced a plan to capture potential synergies and opportunities to increase effectiveness through automation. The planned changes in the Location & Commerce business are estimated to affect approximately 1 300 employees.

Since we outlined our new strategy, we have announced total planned employee reductions of approximately 11 500 employees, as well as the transfer of approximately 2 300 employees to Accenture as noted above.

The planned measures support the execution of our strategy and are expected to bring efficiencies and speed to the organization. In line with our values, we are offering employees affected by the planned reductions a comprehensive support program. We remain committed to supporting employees and the local communities through this difficult change.

As of December 31, 2011, we had recognized cumulative net charges in Devices & Services of EUR 797 million related to restructuring activities in 2011, which included restructuring charges and associated impairments. While the total extent of the restructuring activities is still to be determined, we currently anticipate cumulative charges in Devices & Services of around EUR 900 million before the end of 2012. We also believe total cash outflows related to our Devices & Services restructuring activities will be below the level of the cumulative charges related to these restructuring activities.

In the past, our cost structure has benefited from the cost of components eroding more rapidly than the price of our mobile products. Recently, however, component cost erosion has been generally slowing, a trend that adversely affected our profitability in 2010 and 2011, and may do so in the future.

The currency volatility of the Japanese yen and United States dollar against the euro continued to put pressure on our costs in 2011. During 2011, we were able to manage the currency volatility driven cost pressure with an appropriate level of hedging and by managing our sourcing towards more favorable currencies. Our currency exposure profiles have not changed significantly and continued currency volatility of the Japanese yen and US dollar against the euro may negatively affect us in the future.

### ***Location & Commerce***

Our Location & Commerce business develops a range of location-based products and services for consumers, as well as platform services and local commerce services for device manufacturers, application developers, Internet services providers, merchants, and advertisers. The business was formed during 2011 by the combination of our Devices & Services social location services operations and our NAVTEQ business. Beginning October 1, 2011, this new business assumed profit-and-loss responsibility and end-to-end accountability for the full consumer experience. While continuing to serve NAVTEQ's existing customers both in terms of provision of content and as a business-to-business provider of map data, the Location & Commerce business is developing location-based offerings in support of our strategic goals in feature phones and smartphones, as well as developing a portfolio of

## **Table of Contents**

products for the broader Internet ecosystem, including products for our direct competitors. Our Location & Commerce business aims to positively differentiate its digital map data and location-based offerings from those of our competitors and create competitive business models for our customers.

In the fourth quarter 2011, we conducted our annual impairment testing to assess if events or changes in circumstances indicated that the carrying amount of our goodwill may not be recoverable. As a result, we recorded a charge to operating profit of EUR 1.1 billion for the impairment of goodwill in our Location & Commerce business. The impairment charge was the result of an evaluation of the projected financial performance of our Location & Commerce business. This took into consideration the market dynamics in digital map data and related location-based content markets, including our estimate of the market moving long-term from fee-based towards advertising-based models especially in some more mature markets. It also reflected recently announced results and related competitive factors in the local search and advertising market resulting in lower estimated growth prospects from our location-based assets integrated with different advertising platforms. After consideration of all relevant factors, we reduced the net sales projections for Location & Commerce which, in turn, reduced projected profitability and cash flows.

Location & Commerce's resources are primarily focused on the development of (i) content, which involves the mapping of the physical world and places such as roads and points of interest, as well as the collection of activity data generated and authorized for use by our users; (ii) the platform, which adds functionality on top of the content and includes the development tools for us and others to create on top of it; and (iii) applications built on the content and platform.

Our Devices & Services business is a key customer of Location & Commerce. Devices & Services purchases map and application licenses from Location & Commerce for its Nokia Maps service sold in combination with GPS enabled smartphones.

In the following sections we describe the factors and trends that we believe are currently driving our Location & Commerce net sales and profitability.

### *Location-Based Products and Services Proliferation*

A substantial majority of Location & Commerce net sales in 2011 came from the licensing of digital map data and related location-based content and services for use in mobile devices, in-vehicle navigation systems, Internet applications, geographical information system applications and other location-based products and services. Location & Commerce's success depends upon the rate at which consumers and businesses use location-based products and services. In recent years, there has been a strong increase in the availability of such products and services, particularly in mobile devices and online application stores for such devices. Furthermore, as the use of the Internet through mobile devices has been growing rapidly, the anchor of the Internet is moving from the desktops to mobiles. This shift is making location-based content a key element of most Internet experiences. We expect this trend to continue, but we also expect that the level of quality required for these products and services and the ability to charge license fees for the use of map data incorporated into such products and services may vary significantly. By combining our NAVTEQ business with our Devices & Services social location services operations, we believe our Location & Commerce business will be better positioned to capture emerging business opportunities with a broader offering which is no longer limited to digital map data.

### *Increasing Importance of Creating an Ecosystem around Location-Based Services Offering*

Creating a winning ecosystem around our Location & Commerce's services offering will be critical for the success of this business. The longer-term success of the Location & Commerce business will be

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## **Table of Contents**

determined by our ability to attract strategic partners and developers to support our ecosystem. Location & Commerce is aiming to support its ecosystem by enabling strategic partners and independent developers to foster innovation on top of their location platform. We believe that making it possible for other vendors to innovate on top of Location & Commerce's high quality location-based assets will further strengthen the overall experience and make our offering stronger and more attractive.

### *Emergence of the Intelligent Sensor Network*

Mobile Internet devices are increasingly being enabled with a rich set of sensors such as a GPS, a camera and an accelerometer which enable interaction with the real world. This interaction also enables the collection of large volumes of rich data which, when combined with analytics, enable the development of increasingly sophisticated, contextually-aware devices and services. We believe the combination of NAVTEQ with our Devices & Services social location services operations will enable Location & Commerce to participate in this industry development and seize new opportunities to deliver new experiences that bridge the virtual with the real world.

### *Price Pressure for Navigable Map Data Increasing*

Location & Commerce's net sales are also affected by the highly competitive pricing environment. Google is offering turn-by-turn navigation in many countries to its business customers and consumers on certain mobile handsets at no charge to the consumer. While we expect these offerings will increase the adoption of location-based services in the mobile handset industry, we also expect they may lead to additional price pressure from Location & Commerce's business customers, including handset manufacturers, navigation application developers, wireless carriers and personal navigation device ( PND ) manufacturers, which are seeking ways to offer lower-cost or free turn-by-turn navigation to consumers. Turn-by-turn navigation solutions that are free to consumers on mobile devices may also put pressure on automotive OEMs and automotive navigation system manufacturers to have lower cost navigation alternatives. This price pressure is expected to result in an increased focus on advertising revenue as a way to supplement or replace license fees for map data.

In response to the pricing pressure, Location & Commerce focuses on offering a digital map database with superior quality, detail and coverage; providing value-added services to its customers such as distribution and technical services; enhancing and extending its product offering by adding additional content to its map database, such as 3D landmarks; and providing business customers with alternative business models that are less onerous to the business customer than those provided by competitors. Location & Commerce's future results will also depend on Location & Commerce's ability to adapt its business models to generate increasing amounts of advertising revenues from its map and other location-based content.

We believe that Location & Commerce's PND customers will continue to face competitive pressure from smartphones and other mobile devices that now offer navigation, but that PNDs continue to offer a viable option for consumers based on the functionality, user interface, quality and overall ease of use.

### *Quality and Richness of Location-Based Content and Services Will Continue to Increase*

Location & Commerce's profitability is also driven by Location & Commerce's expenses related to the development of its database and expansion. Location & Commerce's development costs are comprised primarily of the purchase and licensing of source maps, employee compensation and third-party fees related to the construction, maintenance and delivery of its database.

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**Table of Contents**

In order to remain competitive and notwithstanding the price pressure discussed above, Location & Commerce will need to continue to expand the geographic scope of its map data, maintain the quality of its existing map data and add an increasing amount of new location-based content and services, as well as using innovative ways like crowd sourcing to collect data. The trends for such location-based content and services include real-time updates to location information, more dynamic information, such as traffic, weather, events and parking availability, and imagery consistent with the real world. We expect that these requirements will cause Location & Commerce's map development expenses to continue to grow, although a number of productivity initiatives are underway designed to improve the efficiency of our database collection processing and delivery. In addition, we will need to continue making investments in this fast paced and innovative location-based content and services industry, for instance through research and development, licensing arrangements, acquiring businesses and technologies, recruiting specialized expertise and partnering with third parties.

***Nokia Siemens Networks***

Nokia Siemens Networks is one of the leading global providers of telecommunications infrastructure hardware, software and services. Focusing on innovation and sustainability, it currently provides a portfolio of mobile, fixed and converged network technology, as well as a professional services offering which includes managed services, consultancy and systems integration, deployment and maintenance.

Nokia Siemens Networks has a broad portfolio of products and services designed to address evolving needs of network operators from GSM to LTE wireless standards, a base of over 600 customers in over 150 countries serving over 2.5 billion subscribers and one of the largest services organizations in the telecommunications infrastructure industry. The company's global customer base includes network operators such as Bharti Airtel, China Mobile, Deutsche Telekom, France Telecom, Softbank, Telefonica O2, Verizon and Vodafone.

Geographical diversity provides Nokia Siemens Networks with opportunities in both emerging markets, which may experience rapid growth, and developed markets where it believes its technologically advanced products and services portfolio provides a competitive advantage, while the geographic diversity of its customer base reduces exposure to fluctuating economic conditions in individual markets.

Nokia Siemens Networks' net sales depend on various developments in the global telecommunications infrastructure and related services market, such as network operator investments, the pricing environment and product mix. In developed markets, operator investments are primarily driven by capacity and coverage upgrades, which, in turn, are driven by greater usage of the networks primarily through the rapid growth in data usage. Those operators are targeting investments in technology and services that allow them to provide end users with fast and faultless network performance in the most efficient manner possible, allowing them to optimize their investment. Such developments are facilitated by the evolution of network technologies that promote greater efficiency and flexibility.

In addition, those operators are increasingly investing in software and services that provide them with the means to better manage end users on their network, and also allow them additional access to the value of the large amounts of subscriber data under their control. In emerging markets, the principal factors influencing operator investments are the continued growth in customer demand for telecommunications services, including data, as well as new subscriber growth. In many emerging markets, this continues to drive growth in network coverage and capacity requirements.

The telecommunications infrastructure market is characterized by intense competition and price erosion caused in part by the entry into the market of vendors from China, Huawei and ZTE, which

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## **Table of Contents**

have gained market share by leveraging their low cost advantage in tenders for customer contracts. In recent years, the technological capabilities of those vendors, particularly Huawei, has improved significantly, resulting in competition not only on price but also on quality.

The pricing environment remained intense in 2011. In particular, the wave of network modernization that has taken place, particularly in Europe but increasingly in other regions including Asia Pacific, has experienced some aggressive pricing as all vendors fight for market share.

Nokia Siemens Networks' net sales are impacted by those pricing developments, which show some regional variation, and in particular by the balance between sales in developed and emerging markets. While price erosion is evident across most geographical markets, it continues to be particularly intense in a number of emerging markets where many operator customers have been subject to financial pressure, both through lack of availability of financing facilities during 2011 as well as profound pricing pressure in their domestic markets.

Pricing pressure is evident in the traditional products markets, in particular, where competitors may have products with similar technological capabilities, leading to commoditization in some areas. Nokia Siemens Networks' ability to compete in those markets is determined by its ability to remain price competitive with its industry peers and it is therefore important for Nokia Siemens Networks to continue to reduce product costs to keep pace with price attrition. Nokia Siemens Networks continued to make progress in reducing product and procurement costs in 2011, and will need to continue to do so in order to provide its customers with high-quality products at competitive prices. There is currently less pricing sensitivity in the managed services market, where vendor selections are often largely determined by the level of trust and demonstrated capability in the field.

In November 2011, Nokia Siemens Networks articulated its regional strategy, identifying three markets, Japan, Korea and the United States, as its priority countries where it will target growth. The Middle East and Africa, where political, financial and competitive pressures have led to particular weakness in 2011, will be the focus of turnaround efforts. In the remaining regions, Latin America, China, Asia-Pacific, Canada and Europe, Nokia Siemens Networks goal will be to defend market share and find areas for future profitable growth.

Over recent years, the telecommunications infrastructure industry has entered a more mature phase characterized by the completion of the greenfield roll-outs of mobile and fixed network infrastructure across many markets, although this is further advanced in developed markets. Despite this, there is still a significant market for traditional network infrastructure products to meet coverage and capacity requirements, even as older technologies such as 2G are supplanted by 3G and LTE. As growth in traditional network products sales slows, there is an emphasis on the provision of network upgrades, often through software, as well as applications, such as billing, charging and subscriber management, and services, particularly the outsourcing of non-core activities to companies that provide extensive telecommunications expertise and strong managed service offerings.

In the following sections we describe the factors and trends that we believe are currently driving Nokia Siemens Network net sales and profitability.

### *Mobility and Data Usage*

Over recent years the two most evident trends in the telecommunications market – the rise in use of mobile services and the exponential increase in data traffic – have converged. One result is that services once regarded as available primarily, if not exclusively, through fixed or wireline network are increasingly in demand from wireless networks also.

Alongside traditional voice and data services, such as text messaging, end-users access a wealth of media services through communications networks, including email and other business data;

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**Table of Contents**

entertainment services, including games and music; visual media, including high definition films and television programming; and social media sites. End-users increasingly expect that such services are available to them everywhere, through both mobile and fixed networks, and a wealth of new devices, optimized to allow them to do so, have become available including tablet computers, highly sophisticated multimedia smartphones, mobile broadband data dongles, set-top boxes and mobile and fixed line telephones.

The widespread availability of devices has been matched by a proliferation of products and services in the market that both meet and feed end-user demand. These continue to drive dramatic increases in data traffic and signaling through both mobile access and transport networks that carry the potential to cause network congestion and complexity. During 2011, this increase continued to gain momentum as more users moved towards smartphones and tablets and even more devices that require constant connectivity were introduced to the market.

While the growth in traffic is clear, it has not been met by corresponding growth in operators' revenues from data traffic, where growth appears to be slowing. This presents operators with a challenge: to cope with the growing traffic load within networks, it is fundamental that operators continue to invest in their networks, but within the financial constraints that their current business models dictate.

This means that while the addition of capacity, speed and coverage is crucial, it is critical that networks are built efficiently and effectively in a manner that optimizes capital investment and delivers networks with architecture sufficiently flexible to cope with evolving requirements.

During 2011, Nokia Siemens Networks recognized the centrality of mobile networks to the future development of telecommunications and announced that it would place mobile broadband at the heart of its strategy, articulating an ambition to provide the world's most efficient mobile networks, the intelligence to maximize the value of those networks and the services capability to make all elements work together seamlessly. Nokia Siemens Networks said it expected to increase investment in mobile broadband.

Also during 2011, Nokia Siemens Networks launched the network architecture designed to equip operators to meet the challenges they are facing. Liquid Net architecture provides flexibility across networks to adapt to changing customer needs instantly, using existing resources more efficiently. This optimizes capital investment and allows operators to seek new revenue opportunities. Liquid Net uses automated, self-adapting broadband optimization to remain constantly aware of the network's operational status, as well as the services and content being consumed, to ensure the best user experience. Liquid Net consists of three areas: Liquid Radio, Liquid Core and Liquid Transport.

*Managed Services and Outsourcing*

There has been an acceleration in the development of the managed services market as operators increasingly look to outsource network management to infrastructure vendors. The primary driver for this trend is that managed services providers are able to offer economies of scale in network management that allow the vendor to manage such contracts profitably while operators can reduce the cost of network management. The outsourcing trend is also underpinned by many operators taking the view that network management is no longer either a core competence or requirement of their business and are increasingly confident they can find greater expertise by outsourcing this activity to a trusted partner that can also improve quality and reliability in the network.

Nokia Siemens Networks believes that this trend will continue and that it could in future be driven by financial imperatives of its customers facing slowing revenue growth but a continuing requirement for capital investment in their networks, a dynamic that has the potential to threaten their profitability.

## **Table of Contents**

levels. This results in some operators aiming to control their operating expenditure. In those circumstances, the outsourcing of the management of their network to infrastructure vendors, such as Nokia Siemens Networks, can be an attractive option.

In emerging markets, such as Africa and India, price pressure and competition in the end-user market has increased the financial pressure on many operators, which in turn has resulted in a similar trend as operators have looked to control and cut costs through outsourcing network management.

The trend towards network management outsourcing is evident in every region of the world and has intensified. Nokia Siemens Networks believes that this trend generates its own momentum in the market as vendors can increasingly demonstrate their capabilities with reference accounts and operators are exposed to their competitors taking steps that can enhance profitability and improve network quality and reliability.

In the announcement of its new strategy in November 2011, Nokia Siemens Networks reaffirmed its commitment to services, and will continue to aim to support mobile operators with high end services and will seek to maximize the potential of its global delivery model, with its global network solution centers in Portugal and India which offer the benefits of scale and efficiencies both to Nokia Siemens Networks and its customers.

### *Customer Experience Management*

As operators in many markets see the growth of net new subscribers slowing or even stopping, they are increasingly focused on leveraging the value of the subscribers they have. As the acquisition of new subscribers to networks in such markets can be both difficult and expensive, customers look to limit churn, where end users transfer to a rival service provider, as well as to increase the revenue derived from each user through the addition of value-added services, such as access to media and entertainment and social networking services. This often requires that operators invest in software and solutions that allow customers to enjoy an improved experience. One of the key foundations for this improved end-user experience is understanding an end user's behavior and preferences, which in turn allows the operator to tailor service offerings to the individual consumer. This not only includes services and applications, but also bespoke billing platforms and identity management solutions.

Nokia Siemens Networks continues to develop and enhance its offerings in this area, and in November 2011 announced that its Customer Experience Management unit would be a lead business area in its new strategy. Nokia Siemens Networks believes it has the industry's leading subscriber database management platform, complemented by flexible billing and charging platforms and other software and solutions that provide its customers with the tools, flexibility and agility required to respond to a rapidly changing end-user market. Nokia Siemens Networks also provides business process and consulting services that help to lead its customers through business transformation opportunities.

### *Motorola Solutions Acquisition*

In April 2011, Nokia Siemens Networks acquired the majority of the wireless network infrastructure assets of Motorola Solutions for a total consideration of EUR 642 million. The acquisition increased Nokia Siemens Networks' global presence and expanded its position and product offerings in key markets. See Item 4B. Business Overview - Nokia Siemens Networks - Motorola Solutions Acquisition.



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## **Table of Contents**

### *New Strategy and Restructuring Program*

Nokia Siemens Networks' focus is on becoming the strongest, most innovative and highest quality mobile broadband and services business in the world. Rather than targeting the full spectrum of telecommunications equipment and services, Nokia Siemens Networks is the first of the telecommunications companies to refocus on providing the most efficient mobile networks, the intelligence that maximizes the value of those networks and the services that make it all work seamlessly.

In November 2011, Nokia Siemens Networks announced a new strategy, including changes to its organizational structure and an extensive restructuring program, aimed at maintaining and developing Nokia Siemens Networks' position as one of the leaders in mobile broadband and services and improving its competitiveness and profitability. Nokia Siemens Networks expects substantial charges related to this restructuring program in 2012. See Item 4B. *Business Overview* *Nokia Siemens Networks' New Strategy and Restructuring Program* for a description of the main elements of the new strategy.

Year 2012 will be a year of transition for Nokia Siemens Networks as it implements its new strategy and restructuring program. Accordingly, Nokia and Nokia Siemens Networks believe it is currently not appropriate to provide annual targets for Nokia Siemens Networks for 2012. Additionally, the macroeconomic environment is making it increasingly difficult to estimate the outlook for 2012.

Longer-term, Nokia and Nokia Siemens Networks target Nokia Siemens Networks' operating margin to be between 5% and 10%, excluding special items and purchase price accounting related items.

Nokia Siemens Networks targets to reduce its annualized operating expenses and production overheads, excluding special items and purchase price accounting related items, by EUR 1 billion by the end of 2013, compared to the end of 2011. While these savings are expected to come largely from organizational streamlining, the company will also target areas such as real estate, information technology, product and service procurement costs, overall general and administrative expenses and a significant reduction of suppliers in order to further lower costs and improve quality.

Nokia Siemens Networks plans to reduce its global workforce by approximately 17 000 by the end of 2013. These planned reductions are designed to align the company's workforce with its new strategy as part of a range of productivity and efficiency measures. These planned measures are expected to include elimination of the company's matrix organizational structure, site consolidation, transfer of activities to global delivery centers, consolidation of certain central functions, cost synergies from the integration of Motorola's wireless assets, efficiencies in service operations and company-wide process simplification.

Nokia Siemens Networks has begun the process of engaging with employee representatives in accordance with country-specific legal requirements to find socially responsible means to address these reduction needs. Nokia Siemens Networks will continue to share information in affected countries as the process proceeds. In order to reduce the impact of the planned reductions, Nokia Siemens Networks intends to launch locally led programs at the most affected sites to provide re-training and re-employment support.

### **Certain Other Factors**

#### *Exchange Rates*

Our business and results of operations are from time to time affected by changes in exchange rates, particularly between the euro, our reporting currency, and other currencies such as the US dollar, the Japanese yen and the Chinese yuan. See Item 3A. *Selected Financial Data* *Exchange Rate Data*.

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**Table of Contents**

Foreign currency denominated assets and liabilities, together with highly probable purchase and sale commitments, give rise to foreign exchange exposure.

The magnitude of foreign exchange exposures changes over time as a function of our presence in different markets and the prevalent currencies used for transactions in those markets. The majority of our non-euro based sales are denominated in the US dollar, but our strong presence in emerging markets like China, India, Brazil and Russia also gives rise to substantial foreign exchange exposure in the Chinese yuan, Indian rupee, Brazilian real and Russian ruble. The majority of our non-euro based purchases are denominated in US dollars and Japanese yen. In general, depreciation of another currency relative to the euro has an adverse effect on our sales and operating profit, while appreciation of another currency relative to the euro has a positive effect, with the exception of the Japanese yen and US dollar, being the only significant foreign currencies in which we have more purchases than sales.

In addition to foreign exchange risk of our own sales and costs, our overall risk depends on the competitive environment in our industry and the foreign exchange exposures of our competitors.

To mitigate the impact of changes in exchange rates on net sales as well as average product cost, we hedge material transaction exposures on a gross basis, unless hedging would be uneconomical due to market liquidity and/or hedging cost. We hedge significant forecasted cash flows typically with a 6- to 12- month hedging horizon. For the majority of these hedges, hedge accounting is applied to reduce profit and loss volatility. We also hedge significant balance sheet exposures. Our balance sheet is also affected by the translation into euro for financial reporting purposes of the shareholders' equity of our foreign subsidiaries that are denominated in currencies other than the euro. In general, this translation increases our shareholders' equity when the euro depreciates, and affects shareholders' equity adversely when the euro appreciates against the relevant other currencies (year-end rate to previous year-end rate). To mitigate the impact to shareholders' equity, we hedge selected net investment exposures from time to time.

During 2011, the volatility of the currency market remained broadly around the same level as in 2010. Overall hedging costs remained relatively low in 2011 due to the low interest rate environment.

During the first half of 2011, the US dollar depreciated against the euro by 4.8%, but subsequently appreciated. At the end of 2011, the US dollar was 4.2% stronger against the euro than at the end of 2010.

The stronger US dollar in 2011 had a positive impact on our net sales expressed in euro, as approximately 40% of our net sales are generated in US dollars and currencies closely following the US dollar. The appreciation of the US dollar also contributed to a higher average product cost, as approximately 60% of the components we use are sourced in US dollars. In total, the movement of the US dollar against the euro had a slightly negative effect on our operating profit in 2011.

In 2011, the Japanese yen appreciated by 11.6% against the euro. During that year, approximately 12% of the devices components we used were sourced in Japanese yen and, consequently, the appreciation of the Japanese yen had a negative impact on our operating profit in 2011. We took action in 2011 to reduce our devices sourcing costs in Japanese yen, including price negotiations with our suppliers and shifting the sourcing of certain components to non-Japanese suppliers. At the end of 2011, we had decreased the amount of device components we source in Japanese yen to approximately 10% of our total costs of sales from 12% at the end of 2010.

In 2011, emerging market currencies performance was mixed. The Chinese yuan and the Russian ruble performed the best appreciating by 9.2% and 1.5%, respectively, against the euro. The Indian rupee and the Brazilian real depreciated by 10.2% and 3.5%, respectively, against the euro.

## **Table of Contents**

In general, the depreciation of an emerging market currency has a negative impact on our operating profit due to reduced revenue in euro terms and/or the reduced purchasing power of customers in the emerging market. The appreciation of an emerging market currency generally has a positive impact on our operating profit.

Significant changes in exchange rates may also impact our competitive position and related price pressures through their impact on our competitors.

For a discussion on the instruments used by Nokia in connection with our hedging activities, see Note 34 to our consolidated financial statements included in Item 18 of this annual report. See also Item 11. Quantitative and Qualitative Disclosures About Market Risk and Item 3D. Risk Factors.

### ***Seasonality***

Our Devices & Services sales are somewhat affected by seasonality. Historically, the first quarter of the year has been the lowest quarter and the fourth quarter has been the strongest quarter, mainly due to the effect of holiday sales. However, over time we have seen a trend towards less pronounced seasonality. The difference between the sequential holiday seasonal increase in the Western hemisphere in fourth quarter and subsequent decrease in first quarter sequential volumes has moderated. The moderation in seasonality has been caused by shifts in the regional make-up of the overall market. Specifically, there has been a larger mix of industry volumes coming from markets where the fourth quarter holiday seasonality is much less prevalent.

Our Location & Commerce sales to the automotive industry are not significantly affected by seasonality. However, Location & Commerce sales to navigation device and mobile device manufacturers typically see strong fourth quarter seasonality due to holiday sales. As the relative share of licensing of Location & Commerce digital map data and related location-based content and services for use in mobile devices compared to in-vehicle navigation systems has increased during the last few years, Location & Commerce sales have been increasingly affected by the same seasonality as mobile device sales.

Nokia Siemens Networks also experiences seasonality. Its sales are generally higher in the last quarter of the year compared with the first quarter of the following year due to network operators' planning, budgeting and spending cycles.

### ***Accounting Developments***

The International Accounting Standards Board, or IASB, has and will continue to critically examine current IFRS, with a view towards improving existing IFRS as well as increasing international harmonization of accounting rules. This process of improvement and convergence of worldwide accounting standards has resulted in amendments to existing rules effective during the year ended December 31, 2011. These are discussed in more detail under New accounting pronouncements under IFRS in Note 1 to our consolidated financial statements included in Item 18 of this annual report. The adopted 2011 amendments to IFRS did not have a material impact on our results of operations or financial position.

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**Table of Contents****Critical Accounting Policies**

Our accounting policies affecting our financial condition and results of operations are more fully described in Note 1 to our consolidated financial statements included in Item 18 of this annual report. Some of our accounting policies require the application of judgment by management in selecting appropriate assumptions for calculating financial estimates, which inherently contain some degree of uncertainty. Management bases its estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances. The related results form the basis for making judgments about reported carrying values of assets and liabilities and reported amounts of revenues and expenses that may not be readily apparent from other sources. The Group will revise material estimates if changes occur in the circumstances on which an estimate was based or as a result of new information or more experience. Actual results may differ from current estimates under different assumptions or conditions. The estimates affect all our businesses equally unless otherwise indicated.

The following paragraphs discuss critical accounting policies and related judgments and estimates used in the preparation of our consolidated financial statements. We have discussed the application of these critical accounting estimates with our Board of Directors and Audit Committee.

***Revenue Recognition***

Majority of the Group's sales are recognized when the significant risks and rewards of ownership have transferred to the buyer, continuing managerial involvement usually associated with ownership and effective control have ceased, the amount of revenue can be measured reliably, it is probable that economic benefits associated with the transaction will flow to the Group, and the costs incurred or to be incurred in respect of the transaction can be measured reliably. The remainder of revenue is recorded under the percentage of completion method.

Devices & Services and certain Local & Commerce and Nokia Siemens Networks revenues are generally recognized when the significant risks and rewards of ownership have transferred to the buyer, continuing managerial involvement usually associated with ownership and effective control have ceased, the amount of revenue can be measured reliably, it is probable that economic benefits associated with the transaction will flow to the Group and the costs incurred or to be incurred in respect of the transaction can be measured reliably. This requires us to assess at the point of delivery whether these criteria have been met. When management determines that such criteria have been met, revenue is recognized. We record estimated reductions to revenue for special pricing agreements, price protection and other volume based discounts at the time of sale, mainly in the mobile device business. Sales adjustments for volume based discount programs are estimated largely based on historical activity under similar programs. Price protection adjustments are based on estimates of future price reductions and certain agreed customer inventories at the date of the price adjustment. Devices & Services and certain Nokia Siemens Networks service revenue is generally recognized on a straight line basis over the service period unless there is evidence that some other method better represents the stage of completion. Devices & Services and Location & Commerce license fees from usage are recognized in the period when they are reliably measurable which is normally when the customer reports them to the Group.

Devices & Services, Location & Commerce and Nokia Siemens Networks may enter into multiple component transactions consisting of any combination of hardware, services and software. The commercial effect of each separately identifiable element of the transaction is evaluated in order to reflect the substance of the transaction. The consideration from these transactions is allocated to each separately identifiable component based on the relative fair value of each component. The consideration allocated to each component is recognized as revenue when the revenue recognition criteria for that element have been met. The Group determines the fair value of each component by

**Table of Contents**

taking into consideration factors such as the price when the component is sold separately by the Group, the price when a similar component is sold separately by the Group or a third party and cost plus a reasonable margin.

Nokia Siemens Networks revenue and cost of sales from contracts involving solutions achieved through modification of complex telecommunications equipment is recognized on the percentage of completion basis when the outcome of the contract can be estimated reliably. This occurs when total contract revenue and the cost to complete the contract can be estimated reliably, it is probable that economic benefits associated with the contract will flow to the Group, and the stage of contract completion can be measured. When we are not able to meet one or more of those conditions, the policy is to recognize revenues only equal to costs incurred to date, to the extent that such costs are expected to be recovered. Completion is measured by reference to costs incurred to date as a percentage of estimated total project costs using the cost-to-cost method.

The percentage of completion method relies on estimates of total expected contract revenue and costs, as well as the dependable measurement of the progress made towards completing the particular project. Recognized revenues and profit are subject to revisions during the project in the event that the assumptions regarding the overall project outcome are revised. The cumulative impact of a revision in estimates is recorded in the period such revisions become probable and can be estimated reliably. Losses on projects in progress are recognized in the period they become probable and can be estimated reliably.

Nokia Siemens Networks current sales and profit estimates for projects may change due to the early stage of a long-term project, new technology, changes in the project scope, changes in costs, changes in timing, changes in customers plans, realization of penalties, and other corresponding factors.

***Customer Financing***

We have provided a limited number of customer financing arrangements and agreed extended payment terms with selected customers. In establishing credit arrangements, management must assess the creditworthiness of the customer and the timing of cash flows expected to be received under the arrangement. However, should the actual financial position of our customers or general economic conditions differ from our assumptions, we may be required to reassess the ultimate collectability of such financings and trade credits, which could result in a write-off of these balances in future periods and thus negatively impact our profits in future periods. Our assessment of the net recoverable value considers the collateral and security arrangements of the receivable as well as the likelihood and timing of estimated collections. From time to time, the Group endeavors to mitigate this risk through transfer of its rights to the cash collected from these arrangements to third-party financial institutions on a non-recourse basis in exchange for an upfront cash payment. During the past three fiscal years the Group has not had any write-offs or impairments regarding customer financing. The financial impact of the customer financing related assumptions mainly affects the Nokia Siemens Networks business. See also Note 34(b) to our consolidated financial statements included in Item 18 of this annual report for a further discussion of long-term loans to customers and other parties.

***Allowances for Doubtful Accounts***

We maintain allowances for doubtful accounts for estimated losses resulting from the subsequent inability of our customers to make required payments. If financial conditions of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required in future periods. Management specifically analyzes accounts receivables and historical bad debt, customer concentrations, customer creditworthiness, current economic trends and changes in our customer payment terms when evaluating the adequacy of the allowance for doubtful accounts. Based on these estimates and assumptions the allowance for doubtful accounts was EUR 284 million at the end of 2011 (EUR 363 million at the end of 2010).

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**Table of Contents*****Inventory-related Allowances***

We periodically review our inventory for excess, obsolescence and declines in market value below cost and record an allowance against the inventory balance for any such declines. These reviews require management to estimate future demand for our products. Possible changes in these estimates could result in revisions to the valuation of inventory in future periods. Based on these estimates and assumptions, the allowance for excess and obsolete inventory was EUR 457 million at the end of 2011 (EUR 301 million at the end of 2010). The financial impact of the assumptions regarding this allowance affects mainly the cost of sales of the Devices & Services and Nokia Siemens Networks businesses.

***Warranty Provisions***

We provide for the estimated cost of product warranties at the time revenue is recognized. Our products are covered by product warranty plans of varying periods, depending on local practices and regulations. While we engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers, our warranty obligations are affected by actual product failure rates (field failure rates) and by material usage and service delivery costs incurred in correcting a product failure. Our warranty provision is established based upon our best estimates of the amounts necessary to settle future and existing claims on products sold as of the balance sheet date. As we continuously introduce new products which incorporate complex technology, and as local laws, regulations and practices may change, it will be increasingly difficult to anticipate our failure rates, the length of warranty periods and repair costs. While we believe that our warranty provisions are adequate and that the judgments applied are appropriate, the ultimate cost of product warranty could differ materially from our estimates. When the actual cost of quality of our products is lower than we originally anticipated, we release an appropriate proportion of the provision, and if the cost of quality is higher than anticipated, we increase the provision. Based on these estimates and assumptions the warranty provision was EUR 688 million at the end of 2011 (EUR 928 million at the end of 2010). The financial impact of the assumptions regarding this provision mainly affects the cost of sales of our Devices & Services business.

***Provision for Intellectual Property Rights, or IPR, Infringements***

We provide for the estimated future settlements related to asserted and unasserted past alleged IPR infringements based on the probable outcome of each potential infringement.

Our products include increasingly complex technologies involving numerous patented and other proprietary technologies. Although we proactively try to ensure that we are aware of any patents and other intellectual property rights related to our products under development and thereby avoid inadvertent infringement of proprietary technologies, the nature of our business is such that patent and other intellectual property right infringements may and do occur. We identify potential IPR infringements through contact with parties claiming infringement of their patented or otherwise exclusive technology, or through our own monitoring of developments in patent and other intellectual property right cases involving our competitors.

We estimate the outcome of all potential IPR infringements made known to us through assertion by third parties, or through our own monitoring of patent- and other IPR-related cases in the relevant legal systems. To the extent that we determine that an identified potential infringement will result in a probable outflow of resources, we record a liability based on our best estimate of the expenditure required to settle infringement proceedings. Based on these estimates and assumptions the provision for IPR infringements was EUR 431 million at the end of 2011 (EUR 449 million at the end of 2010). The financial impact of the assumptions regarding this provision mainly affects our Devices & Services business.

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**Table of Contents**

Our experience with claims of IPR infringement is that there is typically a discussion period with the accusing party, which can last from several months to years. In cases where a settlement is not reached, the discovery and ensuing legal process typically lasts a minimum of one year. For this reason, IPR infringement claims can last for varying periods of time, resulting in irregular movements in the IPR infringement provision. In addition, the ultimate outcome or actual cost of settling an individual infringement may materially vary from our estimates.

***Legal Contingencies***

As discussed in Item 8A7. Litigation and in Note 29 to the consolidated financial statements included in Item 18 of this annual report, legal proceedings covering a wide range of matters are pending or threatened in various jurisdictions against the Group. We record provisions for pending litigation when we determine that an unfavorable outcome is probable and the amount of loss can be reasonably estimated. Due to the inherent uncertain nature of litigation, the ultimate outcome or actual cost of settlement may materially vary from estimates.

***Capitalized Development Costs***

We capitalize certain development costs primarily in the Nokia Siemens Networks business when it is probable that a development project will be a success, the development project will generate further economic benefits and certain criteria, including commercial and technical feasibility, have been met. These costs are then amortized on a systematic basis over their expected useful lives, which due to the constant development of new technologies is between two to five years. During the development stage, management must estimate the commercial and technical feasibility of these projects as well as their expected useful lives. Should a product fail to substantiate its estimated feasibility or life cycle, we may be required to write off excess development costs in future periods.

Whenever there is an indicator that development costs capitalized for a specific project may be impaired, the recoverable amount of the asset is estimated. An asset is impaired when the carrying amount of the asset exceeds its recoverable amount. The recoverable amount is defined as the higher of an asset's net selling price and value in use. Value in use is the present value of discounted estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. For projects still in development, these estimates include the future cash outflows that are expected to occur before the asset is ready for use. See Note 8 to our consolidated financial statements included in Item 18 of this annual report.

Impairment reviews are based upon our projections of anticipated discounted future cash flows. The most significant variables in determining cash flows are discount rates, terminal values, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. Management determines discount rates to be used based on the risk inherent in the related activity's current business model and industry comparisons. Terminal values are based on the expected life of products and forecasted life cycle and forecasted cash flows over that period. While we believe that our assumptions are appropriate, such amounts estimated could differ materially from what will actually occur in the future.

***Business Combinations***

We apply the acquisition method of accounting to account for acquisitions of businesses. The consideration transferred in a business combination is measured as the aggregate of the fair values of the assets transferred, liabilities incurred towards the former owners of the acquired business and equity instruments issued. Acquisition-related costs are recognized as expense in profit and loss in the periods when the costs are incurred and the related services are received. Identifiable assets acquired

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**Table of Contents**

and liabilities assumed are measured separately at their fair value as of the acquisition date. Non-controlling interests in the acquired business are measured separately based on their proportionate share of the identifiable net assets of the acquired business. The excess of the cost of the acquisition over our interest in the fair value of the identifiable net assets acquired is recorded as goodwill.

The determination and allocation of fair values to the identifiable assets acquired and liabilities assumed is based on various assumptions and valuation methodologies requiring considerable management judgment. The most significant variables in these valuations are discount rates, terminal values, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. Management determines the discount rates to be used based on the risk inherent in the related activity's current business model and industry comparisons. Terminal values are based on the expected life of products and forecasted life cycle and forecasted cash flows over that period. Although we believe that the assumptions applied in the determination are reasonable based on information available at the date of acquisition, actual results may differ from the forecasted amounts and the difference could be material.

***Valuation of Long-lived Assets, Intangible Assets and Goodwill***

We assess the carrying amount of identifiable intangible assets and long-lived assets if events or changes in circumstances indicate that such carrying amount may not be recoverable. We assess the carrying amount of our goodwill at least annually, or more frequently based on these same indicators. Factors that we consider important, and which could trigger an impairment review, include the following:

significant underperformance relative to historical or projected future results;

significant changes in the manner of our use of these assets or the strategy for our overall business; and

significantly negative industry or economic trends.

When we determine that the carrying amount of intangible assets, long-lived assets or goodwill may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure any impairment based on discounted projected cash flows.

This review is based upon our projections of anticipated discounted future cash flows. The most significant variables in determining cash flows are discount rates, terminal values, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. Management determines discount rates to be used based on the risk inherent in the related activity's current business model and industry comparisons. Terminal values are based on the expected life of products and forecasted life cycle and forecasted cash flows over that period. While we believe that our assumptions are appropriate, such amounts estimated could differ materially from what will actually occur in the future. In assessing goodwill, these discounted cash flows are prepared at a cash generating unit level. Amounts estimated could differ materially from what will actually occur in the future.

Goodwill is allocated to the Group's cash-generating units (CGU) and discounted cash flows are prepared at CGU level for the purpose of impairment testing. The allocation of goodwill to our CGUs is made in a manner that is consistent with the level at which management monitors operations and the CGUs are expected to benefit from the synergies arising from each of our acquisitions. Accordingly, goodwill has been allocated to the Group's reportable segments; Smart Devices CGU, Mobile Phones CGU, Location & Commerce CGU and Nokia Siemens Networks CGU. For the purposes of the Group's 2011 annual impairment testing, the amount of goodwill previously allocated in 2010 to the



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**Table of Contents**

Devices & Services CGU has been reallocated to the Smart Devices CGU and the Mobile Phones CGU based on their relative fair values. Based on the Group's assessment, no goodwill was allocated from Devices & Services to Location & Commerce pursuant to the formation of Location & Commerce business unit and segment on October 1, 2011. The organizational changes were not a driver of, and did not result in an impairment in the Location & Commerce CGU. Goodwill amounting to EUR 862 million, EUR 502 million and EUR 173 million was allocated to the Smart Devices CGU, Mobile Phones CGU and Nokia Siemens Networks CGU, respectively, at the date of the 2011 impairment testing.

In the fourth quarter of 2011, we conducted our annual impairment testing to assess if events or changes in circumstances indicated that the carrying amount of our goodwill may not be recoverable. The impairment testing was carried out based on management's assessment of financial performance and future strategies in light of current and expected market and economic conditions.

The recoverable amounts for the Smart Devices CGU and the Mobile Phones CGU are based on value in use calculations. A discounted cash flow calculation was used to estimate the value in use for both CGUs. Cash flow projections determined by management are based on information available, to reflect the present value of the future cash flows expected to be derived through the continuing use of the Smart Devices CGU and the Mobile Phones CGU.

The recoverable amounts for the Location & Commerce CGU and the Nokia Siemens Networks CGU are based on fair value less costs to sell. A discounted cash flow calculation was used to estimate the fair value less costs to sell for both CGUs. The cash flow projections employed in the discounted cashflow calculation have been determined by management based on the information available, to reflect the amount that an entity could obtain from separate disposal of each of the Location & Commerce CGU and the Nokia Siemens Networks CGU, in an arm's length transaction between knowledgeable, willing parties, after deducting the estimated costs of disposal.

The cash flow projections employed in the value in use and the fair value less costs to sell calculations are based on detailed financial plans approved by management, covering a three-year planning horizon. Cash flows in subsequent periods reflect a realistic pattern of slowing growth that declines towards an estimated terminal growth rate utilized in the terminal period. The terminal growth rate utilized does not exceed long-term average growth rates for the industry and economies in which the CGU operates. All cash flow projections are consistent with external sources of information, wherever available.

The goodwill impairment testing conducted for the Smart Devices CGU, Mobile Phones CGU and Nokia Siemens Networks CGU did not result in any impairment charges for the year ended December 31, 2011.

A charge to operating profit of EUR 1 090 million was recorded for the impairment of goodwill in our Location & Commerce business in the fourth quarter 2011. The impairment loss was allocated in its entirety to the carrying amount of goodwill in the balance sheet of the Location & Commerce CGU. This impairment loss is presented as impairment of goodwill in the consolidated income statement. As a result of the impairment loss, the amount of goodwill allocated to the Location & Commerce CGU has been reduced to EUR 3 274 million at December 31, 2011.

The impairment charge is the result of an evaluation of the projected financial performance and net cash flows of the Location & Commerce CGU. The main drivers for management's net cash flow projections include license fees related to digital map data, fair value of the services sold within the Group and estimated average revenue per user with regard to mobile media advertising. The average revenue per user is estimated based on peer market data for mobile advertising revenue. Projected device sales volumes impact the overall forecasted intercompany and advertising revenues. This takes

**Table of Contents**

into consideration the market dynamics in digital map data and related location-based content markets, including the Group's long-term view that the market will move from fee-based models towards advertising-based models especially in some more mature markets. It also reflects recently announced results and related competitive factors in local search and advertising market resulting in lower estimated growth prospects from location-based assets integrated with different advertising platforms. After consideration of all relevant factors, the Group reduced the net sales projections for the Location & Commerce CGU which, in turn, reduced projected profitability and cash flows.

The Group has concluded that the recoverable amount for the Location & Commerce CGU is most sensitive to the valuation assumptions for discount rate and long-term growth rate. A reasonably possible increase in the discount rate or decrease in long-term growth rate would give rise to an additional material impairment loss.

The key assumptions applied in the impairment testing for each CGU in the annual goodwill impairment testing for each year indicated are presented in the table below:

	Cash generating units										
	Smart Devices	Mobile Phones	Devices & Services		Nokia Siemens Networks			Location & Commerce			
	%	%		%		%		%			
	2011	2011	2011	2010	2009	2011	2010	2009	2011	2010	2009
Terminal growth rate	1.9	1.5		2.0	2.0	1.0		1.0	3.1	4.0	5.0
Post-tax discount rate	9.0	9.0		8.7		10.4			9.7	9.6	
Pre-tax discount rate	12.2	13.1		11.1	11.5	13.8		13.2	13.1	12.8	12.6

Both value in use of Smart Devices CGU and Mobile Phones CGU and fair value less costs to sell for Location & Commerce CGU and Nokia Siemens Networks CGU are determined on a pre-tax value basis using pre-tax valuation assumptions including pre-tax cash flows and pre-tax discount rate. As market-based rates of return for the Group's CGUs are available only on a post-tax basis, the pre-tax discount rates are derived by adjusting the post-tax discount rates to reflect the specific amount and timing of future tax cash flows. The discount rates applied in the impairment testing for each CGU have been determined independently of capital structure reflecting current assessments of the time value of money and relevant market risk premiums. Risk premiums included in the determination of the discount rate reflect risks and uncertainties for which the future cash flow estimates have not been adjusted.

In 2009, the Group recorded an impairment loss of EUR 908 million to reduce the carrying amount of the Nokia Siemens Networks CGU to its recoverable amount. The impairment loss was allocated in its entirety to the carrying amount of goodwill arising from the formation of Nokia Siemens Networks and from subsequent acquisitions completed by Nokia Siemens Networks. As a result of the impairment loss, the amount of goodwill allocated to the Nokia Siemens Networks CGU in the year ended December 31, 2009, was reduced to zero. Goodwill allocated to the Nokia Siemens Networks CGU has subsequently increased during 2011, primarily as a result of the acquisition of Motorola Solutions Networks business.

The goodwill impairment testing conducted for each of the Group's CGUs for the year ended December 31, 2010 did not result in any impairment charges. See also Note 8 to our consolidated financial statements included in Item 18 of this annual report for further information regarding Valuation of long-lived and intangible assets and goodwill.

***Fair Value of Derivatives and Other Financial Instruments***

The fair value of financial instruments that are not traded in an active market (for example, unlisted equities, currency options and embedded derivatives) are determined using valuation techniques. We use judgment to select an appropriate valuation methodology and underlying assumptions based

**Table of Contents**

principally on existing market conditions. If quoted market prices are not available for unlisted shares, fair value is estimated by using various factors, including, but not limited to: (1) the current market value of similar instruments, (2) prices established from a recent arm's length financing transaction of the target companies, (3) analysis of market prospects and operating performance of the target companies taking into consideration of public market comparable companies in similar industry sectors. Changes in these assumptions may cause the Group to recognize impairments or losses in the future periods. During 2011 the Group received distributions of EUR 45 million (EUR 69 million in 2010) included in other financial income from a private fund held as non-current available-for-sale. Due to a reduction in estimated future cash flows the Group also recognized an impairment loss of EUR 38 million (EUR 94 million in 2010) for the fund included in other financial expenses.

***Income Taxes***

The Group is subject to income taxes both in Finland and in numerous other jurisdictions. Significant judgment is required in determining income tax expense, tax provisions, deferred tax assets and liabilities recognized in the consolidated financial statements. We recognize deferred tax assets to the extent that it is probable that sufficient taxable income will be available in the future against which the temporary differences and unused tax losses can be utilized. We have considered future taxable income and tax planning strategies in making this assessment. Deferred tax assets are assessed for realizability each reporting period, and when circumstances indicate that it is no longer probable that deferred tax assets will be utilized, they are adjusted as necessary.

At December 31, 2011, the Group had loss carry forwards, temporary differences and tax credits of EUR 4 302 million (EUR 3 323 million in 2010) for which no deferred tax assets were recognized in the consolidated financial statements due to uncertainty of utilization of these items.

We recognize tax provisions based on estimates and assumptions when, despite our belief that tax return positions are supportable, it is more likely than not that certain positions will be challenged and may not be fully sustained upon review by tax authorities.

If the final outcome of these matters differs from the amounts initially recorded, differences may positively or negatively impact the current taxes and deferred taxes in the period in which such determination is made.

***Pensions***

The determination of our pension benefit obligation and expense for defined benefit pension plans is dependent on our selection of certain assumptions used by actuaries in calculating such amounts. Those assumptions are described in Note 5 to our consolidated financial statements included in Item 18 of this annual report and include, among others, the discount rate, expected long-term rate of return on plan assets and annual rate of increase in future compensation levels. A portion of our plan assets is invested in equity securities. The equity markets have experienced volatility, which has affected the value of our pension plan assets. This volatility may make it difficult to estimate the long-term rate of return on plan assets. Actual results that differ from our assumptions are accumulated and amortized over future periods and therefore generally affect our recognized expense and recorded obligation in such future periods. Our assumptions are based on actual historical experience and external data regarding compensation and discount rate trends. While we believe that our assumptions are appropriate, significant differences in our actual experience or significant changes in our assumptions may materially affect our pension obligation and our future expense. The financial impact of the pension assumptions affects mainly the Devices & Services and Nokia Siemens Networks businesses.

**Table of Contents****Share-based Compensation**

We have various types of equity-settled share-based compensation schemes for employees mainly in Devices & Services and Location & Commerce. Employee services received, and the corresponding increase in equity, are measured by reference to the fair value of the equity instruments as at the date of grant, excluding the impact of any non-market vesting conditions. Fair value of stock options is estimated by using the Black-Scholes model on the date of grant based on certain assumptions. Those assumptions are described in Note 24 to our consolidated financial statements included in Item 18 of this annual report and include, among others, the dividend yield, expected volatility and expected life of stock options. The expected life of stock options is estimated by observing general option holder behavior and actual historical terms of Nokia stock option programs, whereas the assumption of the expected volatility has been set by reference to the implied volatility of stock options available on Nokia shares in the open market and in light of historical patterns of volatility. These variables make estimation of fair value of stock options difficult.

Non-market vesting conditions attached to the performance shares are included in assumptions about the number of shares that the employee will ultimately receive relating to projections of sales and earnings per share. On a regular basis, we review the assumptions made and revise the estimates of the number of performance shares that are expected to be settled, where necessary. At the date of grant, the number of performance shares granted that are expected to be settled is assumed to be two times the amount at threshold. Any subsequent revisions to the estimates of the number of performance shares expected to be settled may increase or decrease total compensation expense. Such increase or decrease adjusts the prior period compensation expense in the period of the review on a cumulative basis for unvested performance shares for which compensation expense has already been recognized in the profit and loss account, and in subsequent periods for unvested performance shares for which the expense has not yet been recognized in the profit and loss account. Significant differences in employee option activity, equity market performance, and our projected and actual net sales and earnings per share performance may materially affect future expense. In addition, the value, if any, an employee ultimately receives from share-based payment awards may not correspond to the expense amounts recorded by the Group.

**Results of Operations****2011 compared with 2010***Nokia Group*

The following table sets forth selective line items and the percentage of net sales that they represent for the fiscal years 2011 and 2010.

	Year Ended December 31, 2011	Percentage of Net Sales	Year Ended December 31, 2010	Percentage of Net Sales	Percentage Increase/ (Decrease)
	(EUR millions, except percentage data)				
Net sales	38 659	100.0%	42 446	100.0%	(9)%
Cost of sales	(27 340)	(70.7)%	(29 629)	(69.8)%	(8)%
Gross profit	11 319	29.3%	12 817	30.2%	(12)%
Research and development expenses	(5 612)	(14.5)%	(5 863)	(13.8)%	(4)%
Selling and marketing expenses	(3 791)	(9.8)%	(3 877)	(9.1)%	(2)%
Administrative and general expenses	(1 121)	(2.9)%	(1 115)	(2.6)%	1%
Other operating income and expenses	(1 868)	(4.8)%	108	0.3%	
Operating profit	(1 073)	(2.8)%	2 070	4.9%	

**Table of Contents****Net Sales**

Although the mobile device industry continued to see volume growth in 2011, our net sales and profitability were negatively affected by the increasing momentum of competing smartphone platforms relative to our Symbian smartphones in all regions as we embarked on our platform transition to Windows Phone, as well as our pricing actions due to the competitive environment in both the smartphone and feature phone markets. In addition, during the first half of 2011 our net sales and profitability were adversely affected by our lack of dual SIM products, which continued to be a growing part of the market. For Nokia Siemens Networks, net sales growth was driven primarily by the contribution from the acquired Motorola Solutions network infrastructure assets, which was completed on April 29, 2011. On a year-on-year basis the movement of the euro relative to relevant currencies had almost no impact on our overall net sales.

The following table sets forth the distribution by geographical area of our net sales for the fiscal years 2011 and 2010.

	<b>Year Ended December 31,</b>	
	<b>2011</b>	<b>2010</b>
Europe	31%	34%
Middle East & Africa	14%	13%
Greater China	17%	18%
Asia-Pacific	23%	21%
North America	4%	5%
Latin America	11%	9%
<b>Total</b>	<b>100%</b>	<b>100%</b>

The 10 markets in which we generated the greatest net sales in 2011 were, in descending order of magnitude, China, India, Brazil, Russia, Germany, Japan, the United States, the United Kingdom, Italy and Spain, together representing approximately 52% of total net sales in 2011. In comparison, the 10 markets in which we generated the greatest net sales in 2010 were China, India, Germany, Russia, the United States, Brazil, the United Kingdom, Spain, Italy and Indonesia, together representing approximately 52% of total net sales in 2010.

**Gross Margin**

Our gross margin in 2011 was 29.3%, compared to 30.2% in 2010. The lower gross margin in 2011 resulted primarily from the decrease in gross margin in Devices & Services compared to 2010, which was partially offset by increased gross margin in Nokia Siemens Networks.

**Operating Expenses**

Our research and development ( R&D ) expenses were EUR 5 612 million in 2011, compared to EUR 5 863 million in 2010. Research and development costs represented 14.5% of our net sales in 2011 compared to 13.8% in 2010. The increase in R&D expenses as a percentage of net sales largely resulted from a relative decline in net sales in 2011 compared to an increase in net sales and a decrease in research and development expenses in 2010. Research and development expenses included purchase price accounting items and other special items of EUR 440 million in 2011 compared to EUR 575 million in 2010. At December 31, 2011, we employed 34 876 people in research and development, representing approximately 27% of our total workforce, and had a strong research and development presence in 16 countries.

**Table of Contents**

In 2011, our selling and marketing expenses were EUR 3 791 million, compared to EUR 3 877 million in 2010. Selling and marketing expenses represented 9.8% of our net sales in 2011 compared to 9.1% in 2010. The increase in selling and marketing expenses as a percentage of net sales reflected a decline in net sales in 2011 compared to an increase in net sales and a decrease in selling and marketing expenses in 2010. Selling and marketing expenses included purchase price accounting items and other special items of EUR 444 million in 2011 compared to EUR 429 million in 2010.

Administrative and general expenses were EUR 1 121 million in 2011, unchanged compared to 2010. Administrative and general expenses were equal to 2.9% of our net sales in 2011 compared to 2.6% in 2010. The increase in administrative and general expenses as a percentage of net sales reflected the decrease in net sales in 2011. Administrative and general expenses included special items of EUR 37 million in 2011 compared to EUR 77 million in 2010.

In 2011, other income and expenses included restructuring charges of EUR 500 million, impairment of assets of EUR 90 million, consideration related to the Accenture transaction of EUR 251 million, impairment of shares in an associated company of EUR 41 million and a benefit from a cartel claim settlement of EUR 49 million in 2011. In 2010, other income and expenses included restructuring charges of EUR 112 million, a prior year-related refund of customs duties of EUR 61 million, a gain on sale of assets and businesses of EUR 29 million and a gain on sale of the wireless modem business of EUR 147 million.

**Operating Margin**

Our 2011 operating loss was EUR 1 073 million, compared with an operating profit of EUR 2 070 million in 2010. The decreased operating profit resulted primarily from an impairment of goodwill of EUR 1.1 billion in our Location & Commerce business, a decrease in the operating profit in our Devices & Services business, which was partially offset by a decrease in the operating loss in Nokia Siemens Networks. Our 2011 operating margin was (2.8)% in 2011, compared to 4.9% in 2010. Our operating profit in 2011 included purchase price accounting items and other special items of net negative EUR 2 898 million compared to net negative EUR 1 134 million in 2010.

**Corporate Common**

Corporate Common Functions expenses totaled EUR 131 million in 2011, compared to EUR 113 million in 2010.

**Net Financial Income and Expenses**

Financial income and expenses, net, was an expense of EUR 102 million in 2011 compared to an expense of EUR 285 million in 2010. The lower net expense in 2011 was primarily driven by lower net costs related to hedging our cash balances and favorable fluctuations in certain foreign exchange rates. Nokia expects financial income and expenses, net, in 2012 to be an expense of approximately EUR 300 million primarily due to higher expected net costs related to hedging our cash balances, as well as higher costs related to Nokia Siemens Networks financing.

Our net debt to equity ratio was negative 40% at December 31, 2011, compared with a net debt to equity ratio of negative 43% at December 31, 2010. See Item 5B. Liquidity and Capital Resources below.

**Profit Before Taxes**

Loss before tax was EUR 1 198 million in 2011, compared to profit of EUR 1 786 million in 2010. Taxes amounted to EUR 290 million in 2011 and EUR 443 million in 2010. The effective tax rate decreased to negative 24.2% in 2011, compared with 24.8% in 2010. In 2011, our taxes continued to be unfavorably affected by Nokia Siemens Networks taxes as no tax benefits are recognized for certain Nokia Siemens Networks deferred tax items due to uncertainty of utilization of these items.

**Table of Contents**Non-controlling interests

Loss attributable to non-controlling interests totaled EUR 324 million in 2011, compared with loss attributable to non-controlling interests of EUR 507 million in 2010. This change was primarily due to a decrease in Nokia Siemens Networks' losses.

Profit Attributable to Equity Holders of the Parent and Earnings per Share

Loss attributable to equity holders of the parent in 2011 totaled EUR 1 164 million, compared with profit of EUR 1 850 million in 2010. Earnings per share in 2011 decreased to EUR (0.31) (basic) and EUR (0.31) (diluted), compared with EUR 0.50 (basic) and EUR 0.50 (diluted) in 2010.

Results by SegmentsDevices & Services

The following table sets forth selective line items and the percentage of net sales that they represent for Devices & Services for the fiscal years 2011 and 2010.

	Year Ended December 31, 2011	Percentage of Net Sales	Year Ended December 31, 2010	Percentage of Net Sales	Percentage Increase/ (Decrease)
(EUR millions, except percentage data)					
Net sales <sup>(1)</sup>	23 943	100.0%	29 134	100.0%	(18)%
Cost of sales	(17 303)	(72.3)%	(20 412)	(70.1)%	(15)%
Gross profit	6 640	27.7%	8 722	29.9%	(24)%
Research and development expenses	(2 441)	(10.2)%	(2 694)	(9.2)%	(9)%
Selling and marketing expenses	(2 180)	(9.1)%	(2 270)	(7.8)%	(4)%
Administrative and general expenses	(362)	(1.5)%	(388)	(1.3)%	(7)%
Other operating income and expenses	(773)	(3.2)%	170	0.6%	
Operating profit	884	3.7%	3 540	12.2%	(75)%

(1) Includes IPR royalty income recognized in Devices & Services Other net sales.

Net Sales

The following table sets forth our Devices & Services net sales and year-on-year growth rate by geographic area for the fiscal years 2011 and 2010.

	Year Ended December 31, 2011	Change 2010 to 2011	Year Ended December 31, 2010
(EUR millions, except percentage data)			
Europe	7 064	(27)%	9 736
Middle East & Africa	4 098	1%	4 046
Greater China	5 063	(18)%	6 167

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Asia-Pacific	4 896	(19)%	6 014
North America	354	(61)%	901
Latin America	2 468	9%	2 270
Total	23 943	(18)%	29 134



**Table of Contents**

The 18% year-on-year decline in Devices & Services net sales in 2011 resulted from lower volumes and ASPs in both Smart Devices and Mobile Phones discussed below, partially offset by higher IPR royalty income discussed below.

During the second quarter of 2011, Devices & Services net sales were negatively affected by unexpected sales and inventory patterns, resulting in distributors and operators purchasing fewer of our devices across our portfolio as they reduced their inventories of Nokia devices. Devices & Services net sales were also affected during the second quarter of 2011 by a negative mix shift towards devices with lower average selling prices and lower gross margins. Our actions enabled us to create healthier sales channel dynamics during the latter weeks of the second quarter 2011. Devices & Services net sales increased sequentially in the fourth quarter 2011, supported by broader product renewal in both Mobile Phones, for example dual SIM devices, and Smart Devices as well as overall industry seasonality.

Our overall Devices & Services net sales in 2011 benefited from the recognition in Devices & Services Other of approximately EUR 450 million (approximately EUR 70 million in 2010) of non-recurring IPR royalty income, as well as strong growth in the underlying recurring IPR royalty income. We believe these developments underline Nokia's industry leading patent portfolio. During the last two decades, we have invested more than EUR 45 billion in research and development and built one of the wireless industry's strongest and broadest IPR portfolios, with over 10 000 patent families. Nokia is a world leader in the development of mobile device and mobile communications technologies, which is also demonstrated by our strong patent position.

**Volume**

The following chart sets out the mobile device volumes for our Devices & Services business and year-on-year growth rates by geographic area for the fiscal years 2011 and 2010. The IPR royalty income referred to in the paragraph above has been allocated to the geographic area contained in this chart.

	Year Ended December 31, 2011	Change 2010 to 2011	Year Ended December 31, 2010
(Units in millions, except percentage data)			
Europe	87.8	(22)%	112.7
Middle East & Africa	94.6	13%	83.8
Greater China	65.8	(20)%	82.5
Asia-Pacific	118.9	0%	119.1
North America	3.9	(65)%	11.1
Latin America	46.1	5%	43.7
<b>Total</b>	<b>417.1</b>	<b>(8)%</b>	<b>452.9</b>

On a year-on-year basis, the decline in our total Devices & Services volumes in 2011 was driven by lower volumes in both Smart Devices and Mobile Phones discussed below.

**Average Selling Price**

Our mobile device ASP in 2011 was EUR 57, down 11% from EUR 64 in 2010. The decrease in our Devices & Services ASP in 2011 was driven primarily by the increase in the proportion of Mobile Phone sales partially offset by the positive effect of higher IPR royalty income and the lower deferral of revenue related to services sold in combination with our devices. On a year-on-year basis, the impact from the appreciation of the euro against certain currencies had a slightly negative impact, almost entirely offset by the positive impact from foreign currency hedging.

**Table of Contents****Gross Margin**

Our Devices & Services gross margin in 2011 was 27.7%, compared to 29.9% in 2010. On a year-on-year basis, the decline in our Devices & Services gross margin in 2011 was driven primarily by gross margin declines in both Smart Devices and, to a lesser extent, in Mobile Phones, as discussed below, which was partially offset by higher IPR royalty income.

**Operating Expenses**

Devices & Services research and development expenses in 2011 decreased 9% to EUR 2 441 million, compared with EUR 2 694 million in 2010. In 2011, research and development expenses represented 10.2% of Devices & Services net sales, compared with 9.2% in 2010. The decrease in Devices & Services research and development expenses was primarily due to declines in Smart Devices and Devices & Services Other research and development expenses, partially offset by an increase in Mobile Phones research and development expenses. The decreases in Smart Devices and Devices & Services Other research and development expenses were due primarily to a focus on priority projects and cost controls. The increase in Mobile Phones research and development expenses was due primarily to investments to accelerate product development to bring new innovations to the market faster and at lower price-points, consistent with the Mobile Phones internet for the next billion strategy. This increase was partially offset by a focus on priority projects and cost controls. Devices & Services R&D expenses included amortization of acquired intangible assets of EUR 8 million and EUR 10 million in 2011 and 2010, respectively.

In 2011, Devices & Services selling and marketing expenses decreased 4% to EUR 2 180 million, compared with EUR 2 270 million in 2010. The decrease was primarily due to lower Smart Devices sales and marketing expenses. In 2011, selling and marketing expenses represented 9.1% of Devices & Services net sales, compared with 7.8% of its net sales in 2010.

Devices & Services administrative and general expenses in 2011 decreased 7% to EUR 362 million, compared with EUR 388 million in 2010. The decrease in Devices & Services administrative and general expenses was primarily driven by lower Smart Devices administrative and general expenses which more than offset an increase in Devices & Services Other administrative and general expenses. In 2011, administrative and general expenses represented 1.5% of Devices & Services net sales, compared with 1.3% in 2010.

Other operating income and expenses were expense of EUR 773 million in 2011 and included restructuring charges of 456 million, impairment of assets of EUR 90 million, Accenture deal consideration related to the Accenture transaction of EUR 251 million, impairment of shares in an associated company of EUR 41 million and a benefit from a cartel claim settlement of EUR 49 million. In 2010, other operating income and expenses were EUR 170 million and included restructuring charges of EUR 85 million, a prior year-related refund of customs duties of EUR 61 million, a gain on sale of assets and business of EUR 29 million and a gain on sale of the wireless modem business of EUR 147 million.

**Cost Reduction Activities and Planned Operational Adjustments**

We are targeting to reduce our Devices & Services operating expenses by more than EUR 1 billion for the full year 2013, compared to Devices & Services operating expenses of EUR 5.35 billion for the full year 2010, excluding special items and purchase price accounting related items. This reduction is expected to come from a variety of different sources and initiatives, including a planned reduction in the number of employees and normal personnel attrition, a reduction in the use of outsourced professionals, reductions in facility costs, and various improvements in efficiencies. See Principal Factors & Trends Affecting our Results of Operations Devices & Services Operational Efficiency and Cost Control in this Item 5 for a discussion of our restructuring actions.

**Table of Contents**

As of December 31, 2011, we had recognized cumulative net charges in Devices & Services of EUR 797 million related to restructuring activities in 2011, which included restructuring charges and associated impairments. While the total extent of the restructuring activities is still to be determined, we currently anticipate cumulative charges in Devices & Services of around EUR 900 million before the end of 2012. We also believe total cash outflows related to our Devices & Services restructuring activities will be below the level of the cumulative charges related to these restructuring activities.

**Operating Margin**

Devices & Services operating profit decreased 75% to EUR 884 million in 2011, compared with EUR 3 540 million in 2010. Devices & Services operating margin in 2011 was 3.7%, compared with 12.2% in 2010. The year-on-year decrease in operating margin in 2010 was driven primarily by the lower net sales and gross margin compared to 2010 in both Smart Devices and Mobile Phones as well as higher restructuring charges and Accenture transaction related consideration.

**Smart Devices**

The following table sets forth selective line items for Smart Devices for the fiscal years 2011 and 2010.

	Year Ended December 31, 2011	Change 2010 to 2011	Year Ended December 31, 2010
Net sales (EUR millions) <sup>(1)</sup>	10 820	(27)%	14 874
Smart Devices volume (millions units)	77.3	(25)%	103.6
Smart Devices ASP (EUR)	140	(3)%	144
Gross margin (%)	23.7%		30.8%
Operating expenses (EUR millions)	2 974	(12)%	3 392
Contribution margin (%)	(3.8)%		9.3%

(1) Does not include IPR royalty income. IPR royalty income is recognized in Devices & Services Other net sales.

**Net Sales**

Smart Devices net sales decreased 27% to EUR 10 820 million in 2011, compared to EUR 14 874 million in 2010. The year-on-year decline in our Smart Devices net sales in 2011 was primarily due to significantly lower volumes and, to a lesser extent, lower ASPs.

**Volume**

Smart Devices volume decreased 25% to 77.3 million units in 2011, compared to 103.6 million units in 2010. The year-on-year decrease in our Smart Device volumes in 2011 was driven by the strong momentum of competing smartphone platforms relative to our higher priced Symbian devices, particularly in Europe and Asia Pacific, as well as pricing tactics by certain of our competitors. During the second quarter of 2011, our Smart Device volumes were also negatively affected by distributors and operators purchasing fewer of our smartphones as they reduced their inventories of those devices, which were slightly above normal levels at the end of the first quarter of 2011, particularly in China. During the second half of 2011, our Symbian competitiveness continued to be challenged across the portfolio driving the significant year-on-year volume decline.

**Table of Contents****Average Selling Price**

Smart Devices ASP decreased 3% to EUR 140 in 2011, compared to EUR 144 in 2010. The year-on-year decline in our Smart Devices ASP in 2011 was driven primarily by price actions due to the competitive environment and the negative impact from foreign currency hedging, partially offset by a positive mix shift towards higher priced smartphones, such as the Nokia N8, Nokia N9 and Lumia devices, and the lower deferral of revenue related to services sold in combination with our devices, particularly in the second half of 2011.

Although Smart Devices ASP declined progressively during the first three quarters of 2011, Smart Devices ASP increased sequentially in the fourth quarter of 2011, supported by sales of the higher priced Nokia N9 and Nokia Lumia devices.

**Gross Margin**

Smart Devices gross margin was 23.7% in 2011, down from 30.8% in 2010. The year-on-year decline in our Smart Devices gross margin in 2011 was driven primarily by greater price erosion than cost erosion due to the competitive environment, our tactical pricing actions during the second and third quarters of 2011 and an increase in Symbian-related allowances during the fourth quarter of 2011.

Following the announcement of our partnership with Microsoft in February 2011, we expected to sell approximately 150 million more Symbian devices in the years to come. However, changing market conditions have put increasing pressure on Symbian and contributed to a faster decline of our Symbian volumes than we anticipated. We expect this trend to continue in 2012. As a result of the changing market conditions, combined with our increased focus on Lumia, we believe we will sell fewer Symbian devices than previously anticipated. Thus, in the fourth quarter 2011, we recognized allowances related to excess component inventory and future purchase commitments, and we may need to recognize additional allowances in the future.

**Mobile Phones**

The following table sets forth selective line items for Mobile Phones for the fiscal years 2011 and 2010.

	Year Ended December 31, 2011	Change 2010 to 2011	Year Ended December 31, 2010
Net sales (EUR millions) <sup>(1)</sup>	11 930	(13)%	13 696
Mobile Phones volume (millions units)	339.8	(3)%	349.2
Mobile Phones ASP (EUR)	35	(10)%	39
Gross margin (%)	26.1%		28.0%
Operating expenses (EUR millions)	1 640	9%	1 508
Contribution margin (%)	12.4%		17.0%

(1) Does not include IPR royalty income. IPR royalty income is recognized in Devices & Services Other net sales.

**Net Sales**

Mobile Phones net sales decreased 13% to EUR 11 930 million in 2011, compared to EUR 13 696 million in 2010. On a year-on-year basis, our Mobile Phones net sales decrease in 2011 was due to lower ASPs and, to a lesser extent, lower volumes.

**Table of Contents****Volume**

Mobile Phones volume decreased 3% to 339.8 million units in 2011, compared to 349.2 million units in 2010. The year-on-year decline in our Mobile Phones volumes in 2011 was driven by the challenging competitive environment, especially during the first half of the year due to our lack of dual SIM phones, which continued to be a growing part of the market, and pressure from a variety of price aggressive competitors, which adversely affected our Mobile Phones volumes. During 2011, Mobile Phones volumes were also negatively affected by our reduced portfolio of higher priced feature phones, as well as by distributors and operators purchasing fewer of our feature phones during the second quarter of 2011 as they reduced their inventories of those devices which were slightly above normal levels at the end of the first quarter of 2011.

During the second half of 2011, our Mobile Phones volumes increased year-on-year, driven by the introduction and broader availability of our first dual SIM devices and the ongoing product renewal across the feature phones portfolio, which more than offset our reduced portfolio of higher priced feature phones.

**Average Selling Price**

Mobile Phones ASP decreased 10% to EUR 35 in 2011, compared to EUR 39 in 2010. The year-on-year decline in our Mobile Phones ASP in 2011 was primarily due to a higher proportion of sales of lower priced devices driven by a reduced portfolio of higher priced feature phones and our tactical pricing actions across the portfolio, which partially affected the second quarter of 2011 and fully affected the third quarter of 2011. In addition, the appreciation of the euro against certain currencies contributed to the decline, which was partially offset by the positive impact from foreign currency hedging.

**Gross Margin**

Mobile Phones gross margin was 26.1% in 2011, down from 28.0% in 2010. The year-on-year decline in our Mobile Phones gross margin in 2011 was due primarily to greater price erosion than cost erosion due to the competitive environment and our tactical pricing actions across the portfolio which partially affected the second quarter of 2011 and fully affected the third quarter of 2011, a negative impact from foreign currency hedging and the appreciation of the euro against certain currencies, which were partially offset by a product mix shift towards higher margin feature phones.

**Location & Commerce**

The following table sets forth selective line items and the percentage of net sales that they represent for Location & Commerce for the fiscal years 2011 and 2010.

	<b>Year Ended December 31, 2011</b>	<b>Percentage of Net Sales</b>	<b>Year Ended December 31, 2010</b>	<b>Percentage of Net Sales</b>	<b>Percentage Increase/ (Decrease)</b>
	(EUR millions, except percentage data)				
Net sales	1 091	100.0%	869	100.0%	26%
Cost of sales	(214)	(19.6)%	(169)	(19.4)%	27%
Gross profit	877	80.4%	700	80.6%	25%
Research and development expenses	(958)	(87.8)%	(1 011)	(116.3)%	(5)%
Selling and marketing expenses	(259)	(23.7)%	(274)	(31.5)%	(5)%
Administrative and general expenses	(68)	(6.2)%	(75)	(8.6)%	(9)%
Other operating income and expenses	(1 118)	(102.5)%	(3)	(0.3)%	
Operating profit	(1 526)	(139.9)%	(663)	(76.3)%	(130)%

**Table of Contents****Net Sales**

The following table sets forth Location & Commerce net sales and year-on-year growth rate by geographic area for the fiscal years 2011 and 2010.

	Year Ended December 31, 2011	Change 2010 to 2011 (EUR millions, except percentage data)	Year Ended December 31, 2010
Europe	488	28%	380
Middle East & Africa	74	68%	44
Greater China	128	125%	57
Asia-Pacific	74	48%	50
North America	284	(12)%	322
Latin America	43	169%	16
<b>Total</b>	<b>1 091</b>	<b>26%</b>	<b>869</b>

Location & Commerce net sales increased 26% to EUR 1 091 million in 2011, compared to EUR 869 million in 2010. The year-on-year increase in net sales in 2011 was primarily driven by higher sales of map content licenses to vehicle customers due to increased consumer uptake of navigation systems and higher recognition of deferred revenue related to sales of map platform licenses to Smart Devices.

**Gross Margin**

On a year-on-year basis the gross margin in Location & Commerce was virtually unchanged. In 2011, the gross margin benefited from an increased proportion of higher gross margin sales compared to 2010, which were offset by a reclassification of certain data related charges from operating expenditure to cost of sales in the fourth quarter of 2011.

**Operating Expenses**

Location & Commerce research and development expenses decreased 5% to EUR 958 million, compared to EUR 1 011 million in 2010. The decrease was primarily driven by a focus on cost controls, lower project spending and a shift of research and development operating expenses to cost of sales as a result of the divestiture of the media advertising business.

Location & Commerce selling and marketing expenses decreased 5% to EUR 259 million, compared to EUR 274 million in 2010. The decrease was primarily driven by a focus on cost controls and lower product marketing spending.

Location & Commerce administrative and general expenses decreased 9% to EUR 68 million, compared to EUR 75 million in 2010. The decrease was primarily driven by a focus on cost controls, partially offset by increased depreciation costs related to closure of offices.

**Operating Margin**

Location & Commerce operating loss increased to EUR 1 526 million in 2011, compared with a loss of EUR 663 million in 2010. Location & Commerce operating margin in 2011 was negative 139.9%, compared with negative 76.3% in 2010. The year-on-year decrease in operating margin in 2011 was driven primarily by the higher other operating expenses due to the impairment of Location & Commerce's goodwill of EUR 1.1 billion offset to some extent by higher net sales and lower operating expenses compared to 2010.

**Table of Contents**

In the fourth quarter of 2011, we conducted our annual impairment testing to assess if events or changes in circumstances indicated that the carrying amount of our goodwill may not be recoverable. As a result, we recorded the above-noted impairment of goodwill in our Location & Commerce business.

The impairment charge was the result of an evaluation of the projected financial performance of our Location & Commerce business. This took into consideration the market dynamics in digital map data and related location-based content markets, including our estimate of the market moving long-term from fee-based towards advertising-based models especially in some more mature markets. It also reflected recently announced results and related competitive factors in the local search and advertising market resulting in lower estimated growth prospects from our location-based assets integrated with different advertising platforms. After consideration of all relevant factors, we reduced the net sales projections for Location & Commerce which, in turn, reduced projected profitability and cash flows.

*Nokia Siemens Networks*

*Nokia Siemens Networks completed the acquisition of the majority of Motorola Solutions wireless network infrastructure assets on April 30, 2011. Accordingly, the results of Nokia Siemens Networks for 2011 are not directly comparable to 2010.*

The following table sets forth selective line items and the percentage of net sales that they represent for Nokia Siemens Networks for the fiscal years 2011 and 2010.

	Year Ended December 31, 2011	Percentage of Net Sales	Year Ended December 31, 2010	Percentage of Net Sales	Percentage Increase/ (Decrease)
	(EUR millions, except percentage data)				
Net sales	14 041	100.0%	12 661	100.0%	11%
Cost of Sales	(10 239)	(72.9)%	(9 266)	(73.2)%	11%
Gross profit	3 802	27.1%	3 395	26.8%	12%
Research and development expenses	(2 213)	(15.8)%	(2 156)	(17.0)%	3%
Selling and marketing expenses	(1 350)	(9.6)%	(1 328)	(10.5)%	2%
Administrative and general expenses	(553)	(3.9)%	(553)	(4.4)%	0%
Other income and expenses	14	(0.1)%	(44)	(0.3)%	
Operating profit	(300)	(2.1)%	(686)	(5.4)%	(56)%

Net Sales

The following table sets forth Nokia Siemens Networks net sales and year-on-year growth rate by geographic area for the fiscal years 2011 and 2010.

	Year Ended December 31, 2011	Change 2010 to 2011	Year Ended December 31, 2010
	(EUR millions, except percentage data)		
Europe	4 469	(3)%	4 628
Middle East & Africa	1 391	(4)%	1 451
Greater China	1 465	1%	1 451
Asia-Pacific	3 848	32%	2 915
North America	1 077	47%	735
Latin America	1 791	21%	1 481

Total	14 041	11%	12 661
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## **Table of Contents**

Nokia Siemens Networks net sales increased 11% to EUR 14 041 million in 2011, compared to EUR 12 661 million in 2010. The year-on-year increase in Nokia Siemens Networks net sales in 2011 was driven primarily by the contribution from the acquired Motorola Solutions networks assets, which was completed on April 29, 2011. Excluding the acquired Motorola Solutions networks assets, net sales would have increased 4% year-on-year, primarily driven by growth in services, which represented approximately 50% of Nokia Siemens Networks net sales in 2011.

### **Gross Margin**

Nokia Siemens Networks gross margin was 27.1% in 2011, compared to 26.8% 2010. Nokia Siemens Networks gross margin in 2011 reflected the positive impact from the acquired Motorola Solutions networks assets offset to a large extent by the negative effects of the competitive industry environment and an unfavorable sales mix towards lower gross margin revenues.

### **Operating Expenses**

Nokia Siemens Networks research and development expenses increased 3% to EUR 2 213 million, compared to EUR 2 156 million in 2010. The increase was primarily due to the addition of R&D operations relating to the acquired Motorola Solutions networks assets as well as investments in strategic initiatives.

Nokia Siemens Networks selling and marketing expenses, as well as administrative and general expenses, were virtually flat year-on-year in 2011 as the increase from the acquired Motorola Solutions networks was offset by ongoing cost control initiatives.

### **Operating Margin**

Nokia Siemens Networks operating loss in 2011 was EUR 300 million, compared with an operating loss of EUR 686 million in 2010. Nokia Siemens Networks operating margin in 2011 was negative 2.1%, compared with negative 5.4% in 2010 primarily because of higher net sales, which were offset by higher operating expenses.

### **New Strategy and Restructuring Program**

On November 23, 2011, Nokia Siemens Networks announced its strategy to focus on mobile broadband and services and the launch of an extensive global restructuring program. Nokia Siemens Networks expects substantial charges related to this restructuring program in 2012. See Item 4B. Business Overview Nokia Siemens Networks New Strategy and Restructuring Program .

**Table of Contents****2010 compared with 2009***Nokia Group*

The following table sets forth selective line items and the percentage of net sales that they represent for the fiscal years 2010 and 2009.

	Year	Percentage of	Year Ended	Percentage of	Percentage
	Ended		December 31,		
	December 31,	Net Sales	2009	Net Sales	Increase/
	2010				(Decrease)
(EUR millions, except percentage data)					
Net sales	42 446	100.0%	40 984	100.0%	4%
Cost of sales	(29 629)	(69.8)%	(27 720)	(67.6)%	7%
Gross profit	12 817	30.2%	13 264	32.4%	(3)%
Research and development expenses	(5 863)	(13.8)%	(5 909)	(14.4)%	(1)%
Selling and marketing expenses	(3 877)	(9.1)%	(3 933)	(9.6)%	(1)%
Administrative and general expenses	(1 115)	(2.6)%	(1 145)	(2.8)%	(3)%
Other operating income and expenses	108	0.3%	(1 080)	(2.6)%	
Operating profit	2 070	4.9%	1 197	2.9%	73%

Net Sales

For 2010, our net sales and profitability benefited from improved economic and financial conditions following the significant deterioration in demand during the second half of 2008 and 2009. In 2010, we saw volume and value growth in the global mobile device market driven primarily by rapid growth in smartphones. At the same time, the competitive environment in mobile devices intensified, adversely affecting our competitive position in the market. Our device volumes were also adversely affected in the second half of 2010 by shortages of certain components, which continued to adversely affect our business during the first quarter 2011. For Location & Commerce and Nokia Siemens Networks, the demand environment improved in 2010. The overall appreciation of certain currencies relative to the euro during 2010 had a positive effect on our net sales.

The following table sets forth the distribution by geographical area of our net sales for the fiscal years 2010 and 2009.

	Year Ended December 31,	
	2010	2009
Europe	34%	36%
Middle East & Africa	13%	14%
Greater China	18%	16%
Asia-Pacific	21%	22%
North America	5%	5%
Latin America	9%	7%
Total	100%	100%

The 10 markets in which we generated the greatest net sales in 2010 were, in descending order of magnitude, China, India, Germany, Russia, the United States, Brazil, the United Kingdom, Spain, Italy and Indonesia, together representing approximately 52% of total net sales in 2010. In comparison, the



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**Table of Contents**

10 markets in which we generated the greatest net sales in 2009 were China, India, the United Kingdom, Germany, the United States, Russia, Indonesia, Spain, Brazil and Italy, together representing approximately 52% of total net sales in 2009.

**Gross Margin**

Our gross margin in 2010 was 30.2% compared with 32.4% in 2009. The lower gross margin in 2010 resulted primarily from the decrease in gross margin in all three of our reportable segments compared to 2009.

**Operating Expenses**

Research and development (R&D) expenses were EUR 5 863 million in 2010, down 1% from EUR 5 909 million in 2009. R&D costs represented 13.8% of our net sales in 2010, down from 14.4% in 2009. The decrease in R&D expenses as a percentage of net sales primarily reflected the increase in net sales in 2010. Research and development expenses included purchase price accounting items and other special items of EUR 575 million in 2010, compared to EUR 564 million in 2009. At December 31, 2010, we employed 35 869 people in research and development, representing approximately 27% of the group's total workforce, and had a strong research and development presence in 16 countries.

In 2010, our selling and marketing expenses were EUR 3 877 million, down 1% from EUR 3 933 million in 2009. Selling and marketing expenses represented 9.1% of our net sales in 2010, compared with 9.6% in 2009. The decrease in selling and marketing expenses as a percentage of net sales primarily reflected the increase in net sales in 2010. Selling and marketing expenses included purchase price accounting items and other special items of EUR 429 million in 2010, compared to EUR 413 million in 2009.

Administrative and general expenses were EUR 1 115 million in 2010, down 3% from EUR 1 145 in 2009. Administrative and general expenses represented 2.6% of our net sales in 2010, compared with 2.8% in 2009. The decrease in administrative and general expenses as a percentage of net sales primarily reflected the increase in net sales in 2010. Administrative and general expenses included special items of EUR 77 million in 2010, compared to EUR 103 million in 2009.

In 2010, other income and expenses included restructuring charges of EUR 112 million, a prior year-related refund of customs duties of EUR 61 million, a gain on sale of assets and businesses of EUR 29 million and a gain on sale of our wireless modem business of EUR 147 million. In 2009, other income and expenses included restructuring charges of EUR 192 million, purchase price accounting related items of EUR 5 million, an impairment of goodwill related to Nokia Siemens Networks of EUR 908 million, an impairment of assets of EUR 56 million, a gain on sale of our security appliance business of EUR 68 million and a gain on sale of real estate of EUR 22 million.

**Operating Margin**

Our operating profit for 2010 increased 73% to EUR 2 070 million, compared with EUR 1 197 million in 2009. The increased operating profit resulted primarily from a decrease in the operating losses at Nokia Siemens Networks and Location & Commerce, which were partially offset by a lower operating profit in Devices & Services. Our operating margin was 4.9% in 2010, compared with 2.9% in 2009. Our operating profit in 2010 included purchase price accounting items and other special items of net negative EUR 1 134 million, compared to net negative EUR 2 306 million in 2009.

## **Table of Contents**

### **Group Common Functions**

Group Common Functions expenses totaled EUR 114 million in 2010, compared to EUR 134 million in 2009.

### **Net Financial Income and Expenses**

During 2010, our net financial expenses were EUR 285 million, compared with EUR 265 million in 2009. In 2010, the group's net funding costs, as well as the result from foreign exchange gains and losses, were approximately at the same level as in 2009. Other financial income and expenses were adversely affected by a net loss from an investment in a private fund in 2010.

Our net debt to equity ratio was negative 43% at December 31, 2010, compared with a net debt to equity ratio of negative 25% at December 31, 2009. See item 5B. Liquidity and Capital Resources below.

### **Profit Before Taxes**

Profit before tax increased 86% to EUR 1 786 million in 2010, compared with EUR 962 million in 2009. Taxes amounted to EUR 443 million in 2010 and EUR 702 million in 2009. The effective tax rate decreased to 24.8% in 2010, compared with 73.0% in 2009. The higher tax rate in 2009 was primarily due to the non-tax deductible impairment of Nokia Siemens Networks goodwill in 2009. In 2010, our taxes continued to be unfavorably affected by Nokia Siemens Networks taxes as no tax benefits are recognized for certain Nokia Siemens Networks deferred tax items due to uncertainty of utilization of these items. This was more than offset by the positive effect from withholding tax legislation changes in certain jurisdictions in 2010.

### **Non-controlling interests**

Loss attributable to non-controlling interests totaled EUR 507 million in 2010, compared with loss attributable to non-controlling interests of EUR 631 million in 2009. This change was primarily due to a decrease in Nokia Siemens Networks losses.

### **Profit Attributable to Equity Holders of the Parent and Earnings per Share**

Profit attributable to equity holders of the parent in 2010 totaled EUR 1 850 million, compared with EUR 891 million in 2009, representing a year-on-year increase of 108% in 2010. Earnings per share in 2010 increased to EUR 0.50 (basic) and EUR 0.50 (diluted), compared with EUR 0.24 (basic) and EUR 0.24 (diluted) in 2009.

**Table of Contents***Results by Segments**Devices & Services*

The following table sets forth selective line items and the percentage of net sales that they represent for Devices & Services for the fiscal years 2010 and 2009.

	Year Ended December 31, 2010	Percentage of Net Sales	Year Ended December 31, 2009	Percentage of Net Sales	Percentage Increase/ (Decrease)
(EUR millions, except percentage data)					
Net sales	29 134	100.0%	27 853	100.0%	5%
Cost of sales	(20 412)	(70.1)%	(18 626)	(66.9)%	10%
Gross profit	8 722	29.9%	9 227	33.1%	(5)%
Research and development expenses	(2 694)	(9.2)%	(2 734)	(9.8)%	(1)%
Selling and marketing expenses	(2 270)	(7.8)%	(2 330)	(8.4)%	(3)%
Administrative and general expenses	(388)	(1.3)%	(409)	(1.5)%	(5)%
Other operating income and expenses	170	0.6%	(189)	(0.7)%	
Operating profit	3 540	12.2%	3 564	12.8%	(1)%

*Net Sales*

The following table sets forth our Devices & Services net sales and year-on-year growth rate by geographic area for the fiscal years 2010 and 2009.

	Year Ended December 31, 2010	Change 2009 to 2010	Year Ended December 31, 2009
(EUR millions, except percentage data)			
Europe	9 736	(2)%	9 890
Middle East & Africa	4 046	3%	3 923
Greater China	6 167	23%	5 028
Asia-Pacific	6 014	(3)%	6 230
North America	901	(12)%	1 020
Latin America	2 270	29%	1 762
Total	29 134	5%	27 853

The 5% year-on-year increase in Devices & Services net sales in 2010 resulted principally as a result of higher volumes and a flat average selling price (ASP), as well as the overall appreciation of certain currencies against the euro during 2010, and a smaller negative foreign exchange hedging impact compared with 2009. Of our total Devices & Services net sales, services contributed EUR 667 million in 2010, compared with EUR 592 million in 2009.

**Table of Contents****Volume**

The following table sets forth our mobile device volumes and year-on-year growth rate by geographic area for the fiscal years 2010 and 2009.

	Year Ended December 31, 2010	Change 2009 to 2010	Year Ended December 31, 2009
	(Units in millions, except percentage data)		
Europe	112.7	5%	107.0
Middle East & Africa	83.8	8%	77.6
Greater China	82.5	14%	72.6
Asia-Pacific	119.1	(4)%	123.5
North America	11.1	(18)%	13.5
Latin America	43.7	16%	37.6
<b>Total</b>	<b>452.9</b>	<b>5%</b>	<b>431.8</b>

Our 5% increase year-on-year in mobile device volumes was driven primarily by an improved demand environment in 2010, partially offset by the intense competitive environment and shortages of certain components in the second half of the year. During 2010, we gained device market share in Latin America. Our device market share decreased in Asia-Pacific, Middle East & Africa, Europe and North America. Our device market share was flat in Greater China.

**Average Selling Price**

Our mobile device ASP in 2010 was EUR 64, unchanged from 2009. During the first half of 2010, our device ASP decreased primarily as a result of general price erosion across our mobile device portfolio and a higher proportion of lower-priced smartphone sales, offset to some extent by the positive impact of smartphones representing a higher proportion of our overall mobile device sales compared to 2009. However, the decrease in our ASP during the first half of 2010 was offset by an increase in our ASP during the second half of 2010. The increase in our ASP during the second half of 2010 was due primarily to smartphones representing a higher proportion of our overall Devices & Services sales and the appreciation of certain currencies against the euro. This increase was offset to some extent by general price erosion driven by the intense competitive environment and a higher proportion of lower-priced smartphone sales.

**Gross Margin**

Devices & Services gross profit decreased 5% to EUR 8 722 million, compared with EUR 9 227 million in 2009, with a gross margin of 29.9%, compared to 33.1% in 2009. The gross margin decline was primarily due to general price pressure and product material cost erosion being less than general product price erosion, offset to some extent by smartphone volumes representing a higher proportion of overall Devices & Services volumes. Additionally, the gross margin was negatively affected in 2010 by the overall appreciation of certain currencies against the euro and unfavorable foreign currency hedging compared with 2009. During the first half of 2010, the gross margin was positively impacted by the depreciation of certain currencies against the euro. However, this positive impact was more than offset by the appreciation of certain currencies against the euro during the second half of 2010. Further, during the first half of 2010, the gross margin was negatively affected by unfavorable foreign currency hedging, which was partially offset by favorable foreign currency hedging impact during the second half of 2010.

**Table of Contents****Operating Expenses**

Devices & Services research and development (R&D) expenses in 2010 decreased 1% to EUR 2 694 million, compared with EUR 2 734 million in 2009. In 2010, R&D expenses represented 9.2% of Devices & Services net sales, compared with 9.8% in 2009. The decrease in Devices & Services R&D expenses in 2010 was primarily due to the measures we took during the year to adjust our business operations and cost base to prevailing market conditions. Devices & Services R&D expenses included amortization of acquired intangible assets of EUR 10 million and EUR 8 million in 2010 and 2009, respectively.

In 2010, Devices & Services selling and marketing expenses decreased 3% to EUR 2 270 million, compared with EUR 2 330 million in 2009. The decrease was primarily due to the measures we took during the year to adjust our business operations and cost base to prevailing market conditions. In 2010, selling and marketing expenses represented 7.8% of Devices & Services net sales, compared with 8.4% of its net sales in 2009.

Other operating income and expenses were EUR 170 million in 2010 and included restructuring charges of EUR 85 million, a prior year-related refund of customs duties of EUR 61 million, a gain on sale of assets and business of EUR 29 million and a gain on sale of our wireless modem business of EUR 147 million. In 2009, other operating income and expenses were EUR 189 million and included restructuring charges of EUR 178 million, an impairment of assets of EUR 56 million and a gain on the sale of our security appliance business of EUR 68 million.

**Operating Margin**

Devices & Services operating profit remained relatively unchanged at EUR 3 540 million, compared with 2009. Devices & Services operating margin in 2010 was 12.2%, compared with 12.8% in 2009. The year-on-year decrease in operating margin in 2010 was driven primarily by the lower gross margin compared to 2009.

**Smart Devices**

The following table sets forth selective line items for Smart Devices for the fiscal years 2010 and 2009.

	Year Ended December 31, 2010	Change 2009 to 2010	Year Ended December 31, 2009
Net sales (EUR millions) <sup>(1)</sup>	14 874	17.6%	12 649
Smart Devices volume (millions units)	103.6	52.8%	67.8
Smart Devices ASP (EUR)	144	(23.0)%	187
Gross margin (%)	30.8%		37.2%
Operating expenses (EUR millions)	3 392	4.7%	3 241
Contribution margin (%)	9.3%		11.4%

(1) Does not include IPR royalty income. IPR royalty income is recognized in Devices & Services Other net sales.

**Net Sales**

Smart Devices net sales increased 17.6% to EUR 14 874 million in 2010, compared to EUR 12 649 million in 2009. The year-on-year increase in our Smart Devices net sales in 2010 was primarily due to an increase in volumes, that was partially offset by lower ASP.



**Table of Contents****Volume**

Smart Devices volume increased 52.8% to 103.6 million units in 2010, compared to 67.8 million units in 2009. The year-on-year increase in our Smart Devices volumes in 2010 was primarily driven by an improved demand environment in 2010, as well as strong unit growth in the smartphone market.

**Average Selling Price**

Smart Devices ASP decreased 23.0% to EUR 144 in 2010, compared to EUR 187 in 2009. The year-on-year decline in our Smart Devices ASP in 2010 was driven primarily by increased proportion of lower-priced smartphone sales and general price erosion driven by the intense competitive environment.

**Gross Margin**

Smart Devices gross margin was 30.8% in 2010, down from 37.2% in 2009. The year-on-year decline in our Smart Devices gross margin in 2010 was driven primarily by general price pressure and product material cost erosion being less than general product price erosion.

**Mobile Phones**

The following table sets forth selective line items for Mobile Phones for the fiscal years 2010 and 2009.

	Year Ended December 31, 2010	Change 2009 to 2010	Year Ended December 31, 2009
Net sales (EUR millions) <sup>(1)</sup>	13 696	(6.5)%	14 644
Mobile Phones volume (millions units)	349.2	(4.1)%	364.0
Mobile Phones ASP (EUR)	39	(2.5)%	40
Gross margin (%)	28.0%		28.5%
Operating expenses (EUR millions)	1 508	(22.1)%	1 935
Contribution margin (%)	17.0%		15.3%

(1) Does not include IPR royalty income. IPR royalty income is recognized in Devices & Services Other net sales.

**Net Sales**

Mobile Phones net sales decreased 6.5% to EUR 13 696 million in 2010, compared to EUR 14 644 billion in 2009. On a year-on-year basis, our Mobile Phones net sales decrease in 2010 was due to declines in both volumes and ASP.

**Volume**

Mobile Phones volume decreased 4.1% to 349.2 million units in 2010, compared to 364.0 million units in 2009. The year-on-year decline in our Mobile Phones volumes in 2010 was driven by the intense competitive environment and shortages of certain components in the second half of 2010, which was partially offset by an improved demand environment.

**Average Selling Price**

Mobile Phones ASP decreased 2.5% to EUR 39 in 2010, compared to EUR 40 in 2009. The year-on-year decline in our Mobile Phones ASP in 2010 was primarily due to general price erosion driven by the intense competitive environment.

**Table of Contents**Gross Margin

Mobile Phones gross margin was 28.0% in 2010, down from 28.5% in 2009. The year-on-year decline in our Mobile Phones gross margin in 2011 was due primarily to general price pressure and product material cost erosion being less than general product price erosion.

Location & Commerce

The following table sets forth selective line items and the percentage of net sales that they represent for Location & Commerce for the fiscal years 2010 and 2009.

	Year Ended December 31, 2010	Percentage of Net Sales (EUR millions, except percentage data)	Year Ended December 31, 2009	Percentage of Net Sales
Net sales	869	100.0%	756	100.0%
Cost of sales	(169)	(19.4)%	(131)	(17.3)%
Gross profit	700	80.6%	625	82.7%
Research and development expenses	(1011)	(116.3)%	(902)	(119.3)%
Selling and marketing expenses	(274)	(31.5)%	(253)	(33.5)%
Administrative and general expenses	(75)	(8.6)%	(66)	(8.7)%
Other operating income and expenses	(3)	(0.3)%	1	
Operating profit	(663)	(76.3)%	(594)	(78.6)%

Net Sales

The following table sets forth Location & Commerce net sales and year-on-year growth rate by geographic area for the fiscal years 2010 and 2009.

	Year Ended December 31, 2010	Change 2009 to 2010 (EUR millions, except percentage data)	Year Ended December 31, 2009
Europe	380	8%	352
Middle East & Africa	44	33%	33
Greater China	57	850%	6
Asia-Pacific	50	150%	20
North America	322	3%	331
Latin America	16	14%	14
Total	869	15%	756

Net sales of Location & Commerce were EUR 869 million in 2010, compared to EUR 756 million in 2009. The year-on-year increase in net sales was primarily driven by growth in mobile device sales, particularly Nokia mobile devices, improved sales of map licenses to mobile device customers, as well as improved conditions and higher navigation uptake rates in the automotive industry.

Gross Margin

## Edgar Filing: NOKIA CORP - Form 20-F

Location & Commerce gross profit was EUR 700 million in 2010, compared to EUR 625 million in 2009, with a gross margin of 80.6%, compared to 82.7% in 2009. The lower gross margin in 2010 was primarily due to changes in our net sales mix.

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**Table of Contents****Operating Expenses**

Location & Commerce R&D expenses in 2010 were EUR 1 011 million, compared with EUR 902 million in 2009. Location & Commerce R&D expenses included amortization of intangible assets recorded as part of Nokia's acquisition of NAVTEQ totaling EUR 366 million and EUR 346 million in 2010 and 2009, respectively. R&D expenses in 2010 were also driven by increased investment in Location & Commerce map database related to geographic expansion and quality improvements during the year. R&D expenses represented 116.3% of Location & Commerce net sales in 2010, compared to 119.3% of Location & Commerce net sales in 2009.

Location & Commerce selling and marketing expenses in 2010 were EUR 274 million, compared with EUR 253 million in 2009. Location & Commerce selling and marketing expenses primarily consisted of amortization of intangible assets recorded as part of Nokia's acquisition of NAVTEQ totaling EUR 121 million and EUR 115 million in 2010 and 2009, respectively. Selling and marketing expenses in 2010 were also driven by investments to grow Location & Commerce's worldwide sales force and expand the breadth of its product offerings. Selling and marketing expenses represented 31.5% of Location & Commerce net sales in 2010, compared to 33.5% of Location & Commerce net sales in 2009.

**Operating Margin**

Location & Commerce operating loss was EUR 663 million in 2010, compared to a loss of EUR 594 million in 2009. Location & Commerce operating margin was negative 76.3% in 2010, compared to negative 78.6% in 2009. The year-on-year increase in operating margin was primarily due to lower operating expenses as a percentage of net sales offset to some extent by a lower gross margin.

**Nokia Siemens Networks**

According to our estimates, the mobile infrastructure market remained flat in euro terms in 2010 compared to 2009 with the trend varying, depending on region. In the first half of 2010 there was some easing of the difficult market conditions experienced in 2009 when the deterioration in global economic conditions caused many operators to delay investments in network infrastructure but this improvement was offset by two industry specific factors that caused the overall market to continue to decline. First, a global component shortage restricted deliveries of certain products. Second, the introduction of new security clearance processes for telecommunications in India, prevented the completion of product sales to customers during the second and third quarters of the year. These issues continued to impact, but were less influential in the second half of the year, when the market was more buoyant overall.

In 2010, in regional terms there was significant growth in North America as operators invested heavily in upgrading both fixed and wireless networks. The Latin American market also recovered from the severe downturn it experienced in 2009 and saw renewed operator investment. In Europe there was slight growth. The Asia Pacific market was varied with growth in Japan and China, while India contracted year-on-year as a result of the security clearance issue, despite 3G investment in the second half. The Middle East and Africa region remained difficult as continued financial restraints and a wave of consolidation in the market delayed investment.

In segment terms, the managed services market grew and there was continued strong investment in mobile broadband infrastructure in 2010.

Globally in 2010, the network infrastructure equipment segment continued to be affected by significant price erosion of the equipment, largely as a result of maturing technologies and intense price competition, especially from Asian vendors.

**Table of Contents**

The following table sets forth selective line items and the percentage of net sales that they represent for Nokia Siemens Networks for the fiscal years 2010 and 2009.

	Year Ended		Year Ended		Percentage Increase/ (Decrease)
	December 31, 2010	Percentage of Net Sales	December 31, 2009	Percentage of Net Sales	
(EUR millions, except percentage data)					
Net sales	12 661	100.0%	12 574	100.0%	1%
Cost of Sales	(9 266)	(73.2)%	(9 162)	(72.9)%	1%
Gross profit	3 395	26.8%	3 412	27.1%	(1)%
Research and development expenses	(2 156)	(17.0)%	(2 271)	(18.1)%	(5)%
Selling and marketing expenses	(1 328)	(10.5)%	(1 349)	(10.7)%	(2)%
Administrative and general expenses	(553)	(4.4)%	(573)	(4.6)%	(4)%
Other income and expenses	(44)	(0.3)%	(858)	(6.8)%	(95)%
Operating profit	(686)	(5.4)%	(1 639)	(13.0)%	(58)%

**Net Sales**

The following table sets forth Nokia Siemens Networks net sales and year-on-year growth rate by geographic area for the fiscal years 2010 and 2009.

	Year Ended		Year Ended
	December 31, 2010	Change 2009 to 2010	
(EUR millions, except percentage data)			
Europe	4 628	(1)%	4 695
Middle East & Africa	1 451	(12)%	1 653
Greater China	1 451	4%	1 397
Asia-Pacific	2 915	7%	2 725
North America	735	(2)%	748
Latin America	1 481	9%	1 356
Total	12 661	1%	12 574

The 1% increase in net sales of Nokia Siemens Networks primarily reflected improved market conditions in the second half of 2010 and growth in both the product and services business, largely offset by challenging competitive factors, as well as industry-wide shortages of certain components and security clearances issues in India preventing the completion of product sales to customers during the second and third quarters of 2010. Of total Nokia Siemens Networks net sales, services contributed EUR 5.8 billion in 2010, compared with EUR 5.7 billion in 2009.

**Gross Margin**

Nokia Siemens Networks gross profit decreased to EUR 3 395 million in 2010, compared with EUR 3 412 million in 2009, with a gross margin of 26.8% (27.1% in 2009). The year-on-year decline in gross margin was primarily due to general price pressure on certain products, a higher proportion of lower margin products in the business mix and shortages of certain components during the second and third quarters of 2010, offset to some extent by progress on product cost reductions and a more favorable regional mix compared to 2009.



**Table of Contents****Operating Expenses**

In Nokia Siemens Networks, R&D expenses decreased to EUR 2 156 million in 2010, compared with EUR 2 271 million in 2009. In 2010, R&D expenses represented 17.0% of Nokia Siemens Networks net sales, compared with 18.1% in 2009. The decrease in R&D expenses resulted largely from a higher proportion of R&D activities being conducted in emerging markets. In 2010, R&D expenses included restructuring charges and other items of EUR 19 million (EUR 30 million in 2009) and purchase price accounting related items of EUR 180 million (EUR 180 million in 2009).

In 2010, Nokia Siemens Networks selling and marketing expenses decreased to EUR 1 328 million, compared with EUR 1 349 million in 2009. Nokia Siemens Networks selling and marketing expenses represented 10.5% of its net sales in 2009, compared to 10.7% in 2009. The slight reduction in selling and marketing expenses was related to ongoing restructuring and measures to reduce discretionary expenditure. In 2010, selling and marketing expenses included restructuring charges of EUR 21 million (EUR 12 million in 2009) and purchase price accounting related items of EUR 285 million (EUR 286 million in 2009).

In 2010, other operating expenses of EUR 44 million included restructuring charges of EUR 27 million. In 2009, other operating income and expenses included an impairment of goodwill of EUR 908 million in the third quarter of 2009 due to a decline in forecasted profits and cash flows as a result of challenging competitive factors and market conditions in the infrastructure and related service business. In addition, other operating income and expenses in 2009 included a restructuring charge and other items of EUR 14 million, purchase price accounting related items of EUR 5 million and a gain of EUR 22 million on the sale of real estate.

**Operating Margin**

Nokia Siemens Networks had an operating loss of EUR 686 million in 2010, compared with an operating loss of EUR 1 639 million in 2009. The operating margin of Nokia Siemens Networks in 2010 was negative 5.4% compared with negative 13.0% in 2009. The operating loss decrease in 2010 resulted primarily from the absence of goodwill charges in 2010, compared to the EUR 908 million impairment of goodwill in 2009, higher net sales and lower operating expenses, the impact of which was partially offset by the lower gross margin.

**5B. Liquidity and Capital Resources**

At December 31, 2011, our cash and other liquid assets (bank and cash; available-for-sale investments, cash equivalents; available-for-sale investments, liquid assets; and investments at fair value through profit and loss, liquid assets) decreased to EUR 10 902 million, compared with EUR 12 275 million at December 31, 2010, primarily due to the payment of the dividend, cash outflows related to the acquisition of Motorola Solutions networks assets and capital expenditures, partially offset by positive overall net cash from operating activities and a EUR 500 million equity investment in Nokia Siemens Networks by Siemens. At December 31, 2009, cash and other liquid assets totaled EUR 8 873 million.

At December 31, 2011, cash and cash equivalents (bank and cash and available-for-sale investments, cash equivalent) increased to EUR 9 236 million, compared with EUR 7 592 million at December 31, 2010. We hold our cash and cash equivalents predominantly in euro. Cash and cash equivalents totaled EUR 5 926 million at December 31, 2009.

Net cash from operating activities was EUR 1 137 million in 2011, compared with EUR 4 774 million in 2010 and EUR 3 247 million in 2009. In 2011, net cash from operating activities decreased primarily

**Table of Contents**

due to a decrease in profitability and an increase in net working capital partially offset by an increase in cash inflows of IPR royalty income, the receipt of a platform support payment from Microsoft in the fourth quarter of 2011 and an increase in other financial income. In 2010, net cash from operating activities increased primarily due to a decrease in net working capital partially offset by an increase in other financial income and expenses, net.

Net cash from investing activities was EUR 1 499 million in 2011, compared with a usage of EUR 2 421 million in 2010 and net cash used in investing activities of EUR 2 148 million in 2009. Net cash used in acquisitions of group companies, net of acquired cash, was EUR 817 million in 2011, compared with EUR 110 million in 2010 and EUR 29 million in 2009. Cash flow from investing activities in 2011 included purchases of current available-for-sale investments, liquid assets of EUR 3 676 million, compared with EUR 8 573 million in 2010 and EUR 2 800 million in 2009. In 2011, net cash used in investing activities also included purchase of investments at fair value through profit and loss, liquid assets of EUR 607 million, compared with EUR 646 million in 2010. There were no additions to capitalized R&D expenses in 2011, compared with no addition in 2010 and EUR 27 million addition in 2009.

Capital expenditures for 2011 were EUR 597 million, compared with EUR 679 million in 2010 and EUR 531 million in 2009. Major items of capital expenditure included production lines, test equipment and computer hardware used primarily in research and development, office and manufacturing facilities as well as services and software related intangible assets.

Proceeds from maturities and sale of current available-for-sale investments, liquid assets, decreased to EUR 6 090 million, compared with EUR 7 181 million in 2010 and EUR 1 730 million in 2009. Net cash used in financing activities increased to EUR 1 099 million in 2011, compared with EUR 911 million in 2010, primarily as a result of a decrease in proceeds from long-term borrowings and an increase in payment of short-term borrowings, partially offset by an increase in other contributions from shareholders. Net cash used in financing activities increased to EUR 911 million in 2010, compared with EUR 696 million in 2009, primarily as a result of a decrease in proceeds from long-term borrowings, partly offset by a decrease in payments of short-term borrowings. Dividends paid increased to EUR 1 536 million in 2011, compared with EUR 1 519 million in 2010 and EUR 1 546 million in 2009.

At December 31, 2011, we had EUR 3 969 million in long-term interest-bearing liabilities and EUR 1 352 million in short-term borrowings, offset by EUR 10 902 million in cash and other liquid assets, resulting in a net liquid assets balance of EUR 5 581 million, compared with EUR 6 996 million at the end of 2010 and EUR 3 670 million at the end of 2009. The decrease in net liquid assets in 2011 was primarily due to payment of the dividend, cash outflows related to the acquisition of Motorola Solutions networks assets and capital expenditures, partially offset by positive overall net cash from operating activities and a EUR 500 million equity investment in Nokia Siemens Networks by Siemens. For further information regarding our long-term liabilities, see Note 16 to our consolidated financial statements included in Item 18 of this annual report. Our ratio of net interest-bearing debt, defined as short-term and long-term debt less cash and other liquid assets, to equity, defined as capital and reserves attributable to equity holders of the parent and non-controlling interests, was negative 40%, negative 43% and negative 25% at December 31, 2011, 2010 and 2009, respectively.

Our Board of Directors has proposed a dividend of EUR 0.20 per share for the year ended December 31, 2011, subject to the shareholders approval, compared with EUR 0.40 and EUR 0.40 per share paid for the years ended December 31, 2010 and 2009, respectively. See Item 3A. Selected Financial Data Distribution of Earnings.

We have no significant refinancing requirements in 2012. We may incur additional indebtedness from time to time as required to finance acquisitions and working capital needs, or to pre-finance future debt



**Table of Contents**

maturities. In 2011, we did not raise material new long-term debt. In February 2009, we issued EUR 1 750 million of Eurobonds (EUR 1 250 million bonds due 2014 with a coupon of 5.50% and issue price of 99.855%; and EUR 500 million bonds due 2019 with a coupon of 6.75% and issue price of 99.702%) under our Euro Medium-Term Note program to repay part of our short-term borrowings. In February 2009, we also signed and fully drew a EUR 500 million loan from the European Investment Bank. The proceeds of the loan are being used to finance part of our smartphone research and development expenses. In May 2009, we issued USD 1 500 million of US bonds (USD 1 000 million due in 2019 with a coupon of 5.375% and issue price of 99.075%; and USD 500 million due in 2039 with a coupon of 6.625% and issue price of 99.494%) under our shelf registration statement on file with the US Securities and Exchange Commission for general corporate purposes.

At December 31, 2011, we had a USD 4 000 million US Commercial Paper program, USD 4 000 million Euro Commercial Paper program, domestic Finnish commercial paper program totaling EUR 750 million, EUR 5 000 million Euro Medium-Term Note program, and a Shelf registration statement for an indeterminate amount of debt securities on file with the US Securities and Exchange Commission. At December 31, 2011, we also had committed credit facilities of EUR 1 500 million maturing in 2016, and a number of short-term uncommitted facilities.

At December 31, 2011, Nokia Siemens Networks had a domestic Finnish commercial paper program totaling EUR 500 million. Nokia Siemens Networks also had a committed revolving credit facility of EUR 2 000 million maturing in 2012, which was refinanced by a forward starting term and multicurrency revolving facilities valued at EUR 1 255 million, starting at the expiration of the existing revolving credit facility in June 2012, and comprised in equal parts of a revolving credit facility maturing in June 2015 and a term loan facility that matures in June 2013. Both the EUR 1 255 million forward starting term and multicurrency revolving facilities and the existing EUR 2 000 million revolving credit facility are used for general corporate purposes and include financial covenants related to leverage test and interest coverage test of Nokia Siemens Networks. Since the end of 2011, the commitments available under the EUR 1 255 million forward starting term and multicurrency revolving facilities have been increased by EUR 150 million to EUR 1 405 million. As of December 31, 2011, all financial covenants were satisfied.

In 2011, Nokia Siemens Networks had EUR 176 million in Finnish Pension loans outstanding that will mature in 2015 of which EUR 44 million is repayable in 2012. In June 2009, Nokia Siemens Networks signed and fully drew a EUR 250 million loan from the European Investment Bank, which was amortized for EUR 50 million in January 2012. The proceeds of the loan are being used to finance the investments in research and development in radio access network technology for mobile communication systems. In 2010, Nokia Siemens Networks signed and fully drew a total of EUR 80 million in loans from the Nordic Investment Bank. The proceeds of the loan are being used to finance the investments in research and development in radio access network technology for mobile communication systems. The loans from both the European Investment Bank and the Nordic Investment Bank include similar financial covenants as the EUR 2 000 million revolving credit facility. As of December 31, 2011, all financial covenants were satisfied.

At February 29, 2012, the total amount available to us under our committed credit facilities was EUR 3 550 million. See Note 34(c) to our consolidated financial statements included in Item 18 of this annual report for further information relating to our funding programs and committed credit facilities.

We have historically maintained a high level of liquid assets. Management estimates that the cash and other liquid assets level of EUR 10 902 million at the end of 2011, together with our available credit facilities, cash flow from operations, funds available from long-term and short-term debt financings, as well as the proceeds of future equity or convertible bond offerings, will be sufficient to satisfy our future working capital needs, capital expenditure, research and development, acquisitions and debt service requirements at least through 2012.

**Table of Contents**

We believe that we will continue to be able to access the capital markets on terms and in amounts that will be satisfactory to us, and that we will be able to obtain bid and performance bonds, to arrange or provide customer financing as necessary to support our business and to engage in hedging transactions on commercially acceptable terms.

We primarily invest in research and development, marketing and building the Nokia brand. However, over the past few years we have increased our investment in services and software by acquiring companies with specific technology assets and expertise. In 2011, capital expenditures totaled EUR 597 million, compared with EUR 679 million in 2010 and EUR 531 million in 2009. The decrease in 2011 resulted primarily from site consolidation and increased efficiency. Principal capital expenditures during the three years included production lines, test equipment and computer hardware used primarily in research and development, office and manufacturing facilities as well as services and software related intangible assets. In accordance with our current estimate, we expect the amount of capital expenditures (excluding acquisitions) during 2012 to be approximately EUR 650 million, and to be funded from cash flow from operating activities.

**Structured Finance**

Structured finance includes customer financing and other third-party financing. Network operators in some markets sometimes require their suppliers, including us, to arrange, facilitate or provide long-term financing as a condition to obtain or bid on infrastructure projects.

In response to the tightened credit markets, requests for customer financing and extended payment terms have increased in volume and scope since 2009. Recent turmoil in the financial markets may result in more customer financing requests. During 2011, the amount of financing provided directly to our customers remained at approximately the same level as in 2010. However, we do not currently intend to significantly increase financing directly to our customers, which may have an adverse effect on our ability to compete successfully for their business. Rather, as a strategic market requirement, we plan to continue to arrange and facilitate financing, typically supported by export credit or guarantee agencies, and provide extended payment terms to a number of customers. Extended payment terms may continue to result in a material aggregate amount of trade credits, but the associated risk is mitigated by the fact that the portfolio relates to a variety of customers.

The following table sets forth our total structured finance, outstanding and committed, for the years indicated.

**Structured Finance**

	At December 31,		
	2011	2010	2009
	(EUR millions)		
Financing commitments	86	85	99
Outstanding long-term loans (net of allowances and write-offs)	60	64	46
Current portion of outstanding long-term loans (net of allowances and write-offs)	54	39	14
Outstanding financial guarantees and securities pledged			
<b>Total</b>	<b>200</b>	<b>188</b>	<b>159</b>

In 2011, our total structured financing, outstanding and committed, increased to EUR 200 million from EUR 188 million in 2010 and primarily consisted of outstanding long-term loans to network operators.

**Table of Contents**

In 2010, our total structured financing, outstanding and committed, increased to EUR 188 million from EUR 159 million in 2009 and primarily consisted of outstanding long-term loans to network operators.

See Note 34(b) to our consolidated financial statements included in Item 18 of this annual report for further information relating to our committed and outstanding customer financing.

We continue to make arrangements with financial institutions and investors to sell credit risk we have incurred from the commitments and outstanding loans we have made as well as from the financial guarantees we may have given. Should the demand for customer finance increase in the future, we intend to further mitigate our total structured financing exposure, market conditions permitting.

We expect our structured financing commitments to be financed mainly through the capital markets as well as through cash flow from operations.

The structured financing commitments are available under loan facilities mainly negotiated with customers of Nokia Siemens Networks. Availability of the amounts is dependent upon the borrowers' continuing compliance with stated financial and operational covenants and compliance with other administrative terms of the facilities. The customer loans are available to fund capital expenditure relating to the purchase of network infrastructure equipment and services from Nokia Siemens Networks.

The following table sets forth the amounts of our contingent commitments for the periods indicated as at December 31, 2011. The amounts represent the maximum principal amount of commitments.

**Contingent Commitments Expiration Per Period**

	2012	2013-2014	2015-2016 (EUR millions)	Thereafter	Total
Guarantees of Nokia's performance	663	152	48	134	997

Guarantees of Nokia's performance consist of EUR 997 million of guarantees that are provided to certain Nokia Siemens Networks customers in the form of bank guarantees, or corporate guarantees issued by Nokia Siemens Networks' Group entity. These instruments entitle the customer to claim payment as compensation for non-performance by Nokia Siemens Networks of its obligations under network infrastructure supply agreements. Depending on the nature of the instrument, compensation is payable either on demand, or subject to verification of non-performance.

Financial guarantees and securities pledged we may give on behalf of customers represent guarantees relating to payment by certain Nokia Siemens Networks' customers and other third parties under specified loan facilities between such a customer or other third parties and their creditors. Nokia's obligations under such guarantees are released upon the earlier of expiration of the guarantee or early payment by the customer or other third party.

See Note 29 to our consolidated financial statements included in Item 18 of this annual report for further information regarding commitments and contingencies.

**5C. Research and Development, Patents and Licenses**

Success in the mobile communications industry requires continuous introduction of new products and services and their combinations based on the latest available technology. Consequently, we have made substantial research and development ( R&D ) investments in each of the last three years. Our

**Table of Contents**

consolidated R&D expenses for 2011 were EUR 5 612 million, a decrease of 4.3% from EUR 5 863 million in 2010. The decrease in R&D expenses was primarily due to decreased R&D expenses in Devices & Services and Location & Commerce partially offset by an increase in Nokia Siemens Networks. R&D expenses in 2009 were EUR 5 909 million. These expenses represented 14.5%, 13.8% and 14.4% of Nokia net sales in 2011, 2010 and 2009, respectively. In 2011, Devices & Services R&D expenses included EUR 8 million of purchase price accounting related items compared to EUR 10 million in 2010. In 2009, Devices & Services R&D expenses included EUR 8 million of purchase price accounting related items. In 2011, Nokia Siemens Networks R&D expenses included a restructuring charge of EUR 28 million and EUR 61 million of purchase price accounting related items compared to EUR 19 million and EUR 180 million in 2010, respectively. In 2009, Nokia Siemens Networks R&D expenses included a restructuring charge of EUR 30 million and EUR 180 million of purchase price accounting related items. In 2011, Location & Commerce R&D expenses included EUR 343 million of purchase price accounting related items compared to EUR 366 million in 2010. In 2009, R&D expenses in Location & Commerce included EUR 346 million of purchase price accounting related items.

At December 31, 2011, we employed 34 876 people in R&D, representing approximately 27% of our total workforce, and had a strong research and development presence in 16 countries. R&D expenses of Devices & Services as a percentage of its net sales were 10.2% in 2011 compared with 9.2% in 2010 and 9.8% in 2009. Location & Commerce R&D expenses represented 87.8% of its net sales in 2011, compared with 116.3% of its net sales in 2010 and 119.3% in 2009. In the case of Nokia Siemens Networks, R&D expenses represented 15.8%, 17.0% and 18.1% of its net sales in 2011, 2010 and 2009, respectively.

We will continue to invest in R&D in an appropriate manner to support our new strategic objectives. At the same time, the Microsoft partnership allows us to eliminate certain R&D investments in operating systems and services. This is expected to result in lower overall R&D expenses over the longer-term in our Devices & Services business.

**5D. Trends Information**

See Item 5A. Operating Results Principal Factors and Trends Affecting our Results of Operations for information on material trends affecting our business and results of operations.

**5E. Off-Balance Sheet Arrangements**

There are no material off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

**5F. Tabular Disclosure of Contractual Obligations**

The following table sets forth our contractual obligations for the periods indicated as at December 31, 2011.

**Contractual Obligations Payments Due by Period**

	2012	2013-2014	2015-2016 (EUR millions)	Thereafter	Total
Long-term liabilities	363	1 817	292	1 930	4 402
Operating leases	292	360	179	196	1 027
Purchase obligations	2 259	44	2		2 305
Total	2 914	2 221	473	2 126	7 734

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**Table of Contents**

Benefit payments related to the underfunded defined benefit plans are not expected to be material in any given period in the future. Therefore, these amounts have not been included in the table above for any of the years presented.

**ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES**

**6A. Directors and Senior Management**

Pursuant to the provisions of the Finnish Companies Act and our Articles of Association, the control and management of Nokia is divided among the shareholders at a general meeting, the Board of Directors (or the Board), the President, and the Nokia Leadership Team chaired by the Chief Executive Officer.

**Board of Directors**

The current members of the Board of Directors were elected at the Annual General Meeting on May 3, 2011, based on the proposal of the Board's Corporate Governance and Nomination Committee. On the same date, the Chairman and Vice Chairman, as well as the Chairmen and members of the committees of the Board, were elected among the Board members and among the independent directors of the Board, respectively.

The members of the Board of Directors are elected on an annual basis for a one-year term ending at the close of the next Annual General Meeting. The election is made by a simple majority of the shareholders' votes represented at the Annual General Meeting.

The current members of the Board of Directors and its committees are set forth below.

Chairman Jorma Ollila, b. 1950

*Chairman of the Board of Directors of Nokia Corporation. Chairman of the Board of Directors of Royal Dutch Shell Plc. Board member since 1995. Chairman since 1999.*

Master of Political Science (University of Helsinki). Master of Science (Econ.) (London School of Economics). Master of Science (Eng.) (Helsinki University of Technology).

Chairman and CEO, Chairman of the Group Executive Board of Nokia Corporation 1999-2006. President and CEO, Chairman of the Group Executive Board of Nokia Corporation 1992-1999. President of Nokia Mobile Phones 1990-1992. Senior Vice President, Finance of Nokia 1986-1989. Holder of various managerial positions at Citibank within corporate banking 1978-1985.

Vice Chairman of the Board of Directors of Otava Ltd. Member of the Board of Directors of the University of Helsinki. Chairman of the Boards of Directors and the Supervisory Boards of The Research Institute of the Finnish Economy ETLA and Finnish Business and Policy Forum EVA. Member of the Executive Committee of the World Business Council for Sustainable Development (WBCSD). Member of the Board of Directors of Ford Motor Company 2000-2008. Vice Chairman of UPM-Kymmene Corporation 2004-2008.

**Table of Contents**

Vice Chairman Dame Marjorie

Scardino, b. 1947

*Chief Executive and member of the Board of Directors of Pearson plc. Board member since 2001. Vice Chairman since 2007. Chairman of the Corporate Governance and Nomination Committee. Member of the Personnel Committee.*

Bachelor of Arts (Baylor University). Juris Doctor (University of San Francisco).  
Chief Executive of The Economist Group 1993-1997. President of the North American Operations of The Economist Group 1985-1993. Lawyer 1976-1985 and publisher of The Georgia Gazette newspaper 1978-1985.

Stephen Elop, b. 1963

*President and CEO of Nokia Corporation. Chairman of the Nokia Leadership Team. Board member since May 3, 2011.*

Bachelor of Computer Engineering and Management (McMaster University, Hamilton, Canada). Doctor of Laws, honorary (McMaster University, Hamilton, Canada).

President of Microsoft Business Division and member of senior membership team of Microsoft Corporation 2008-2010. COO, Juniper Networks, Inc. 2007-2008. President, Worldwide Field Operations, Adobe Systems Inc. 2005-2006. President and CEO (last position), Macromedia Inc. 1998-2005.

Bengt Holmström, b. 1949

*Paul A. Samuelson Professor of Economics at MIT, joint appointment at the MIT Sloan School of Management. Board member since 1999.*

Bachelor of Science (Helsinki University). Master of Science (Stanford University). Doctor of Philosophy (Stanford University).

Edwin J. Beinecke Professor of Management Studies at Yale University 1985-1994.

Member of the American Academy of Arts and Sciences and Foreign Member of The Royal Swedish Academy of Sciences. Member of the Boards of Directors of The Research Institute of the Finnish Economy ETLA and Finnish Business and Policy Forum EVA. Member of Aalto University Foundation Board.

Henning Kagermann, b. 1947

*Board member since 2007. Chairman of the Personnel Committee. Member of the Corporate Governance and Nomination Committee.*

Ph.D. (Theoretical Physics) (Technical University of Brunswick).

Co-CEO and Chairman of the Executive Board of SAP AG 2008-2009. CEO of SAP 2003-2008. Co-chairman of the Executive Board of SAP AG 1998-2003. A number of leadership positions in SAP AG since 1982. Member of SAP Executive Board 1991-2009. Taught physics and computer science at the Technical University of Brunswick and the University of Mannheim 1980-1992, became professor in 1985.

**Table of Contents**

Member of the Supervisory Boards of Bayerische Motoren Werke Aktiengesellschaft (BMW AG), Deutsche Bank AG, Deutsche Post AG and Münchener Rückversicherungs-Gesellschaft AG (Munich Re). Member of the Board of Directors of Wipro Ltd. President of Deutsche Akademie der Technikwissenschaften. Member of the Honorary Senate of the Foundation Lindau Nobelprizewinners.

Per Karlsson, b. 1955

*Independent Corporate Advisor. Board member since 2002. Member of the Personnel Committee.*

Degree in Economics and Business Administration (Stockholm School of Economics).

Executive Director, with mergers and acquisitions advisory responsibilities, at Enskilda M&A, Enskilda Securities (London) 1986-1992. Corporate strategy consultant at the Boston Consulting Group (London) 1979-1986.

Member of the Board of Directors of IKANO Group S.A.

Jouko Karvinen, b. 1957

*CEO of Stora Enso Oyj. Board member since May 3, 2011. Member of the Audit Committee.*

Master of Science (Eng.) (Tampere University of Technology).

CEO of Philips Medical Systems Division 2002-2006. Member of Board of Management of Royal Philips Electronics 2006 and Group Management Committee 2002-2006. Holder of executive and managerial positions at ABB Group Limited from 1987, including Executive Vice President, Head of Automation Technology Products Division and Member of Group Executive Committee 2000-2002, Senior Vice President, Business Area Automation Power Products 1998-2000, Vice President, Business Unit Drives Products & Systems 1993-1998, Vice President, Power Electronics Division of ABB Drives Oy, Global AC Drives Feeder Factory and R&D Centre 1990-1993.

Member of the Board of Directors of Aktiebolaget SKF. Member of the Board of Directors of the Finnish Forest Industries Federation and the Confederation of European Paper Industries (CEPI).

Helge Lund, b. 1962

*President and CEO of Statoil ASA. Board member since May 3, 2011. Member of the Personnel Committee.*

MA in Business Economics (School of Economics and Business Administration, Bergen). Master of Business Administration (MBA) (INSEAD).

CEO of StatoilHydro 2007-2009. CEO of Statoil 2004-2007. CEO of Aker Kvaerner ASA until 2004, central managerial positions in the Aker RGI system from 1999. Deputy Managing Director of Nycomed Pharma AS. Political adviser to the Conservative Party of the parliamentary group of Norway. Consultant of McKinsey & Co.

**Table of Contents**

Isabel Marey-Semper, b. 1967

*Director of Advanced Research of L'Oréal Group. Board member since 2009. Member of the Audit Committee.*

Ph.D. (Neuro-Pharmacology) (Université Paris Pierre et Marie Curie Collège de France).  
MBA (Collège des Ingénieurs, Paris).

Director of Shared Services of L'Oréal Group 2010-2011. Chief Financial Officer, Executive Vice President in charge of strategy of PSA Peugeot Citroën 2007-2009. COO, Intellectual Property and Licensing Business Unit of Thomson 2006-2007. Vice President Corporate Planning at Saint-Gobain 2004-2005. Director of Corporate Planning, High Performance Materials of Saint-Gobain 2002-2004. Principal of A.T. Kearney (Telesis, prior to acquisition by A.T. Kearney) 1997-2002.

Member of the Board of Directors of Faurecia S.A. 2007-2009.

Risto Siilasmaa, b. 1966

*Board member since 2008. Chairman of the Audit Committee. Member of the Corporate Governance and Nomination Committee.*

Master of Science (Eng) (Helsinki University of Technology).

President and CEO of F-Secure Corporation 1988-2006.

Chairman of the Boards of Directors of F-Secure Corporation and Elisa Corporation. Chairman of the Board of Directors of Fruugo Inc. Member of the Boards of Directors of Blyk Ltd, Efecte Corporation and Mendor Ltd. Member of the Board of Directors of The Federation of Finnish Technology Industries.

Kari Stadigh, b. 1955

*Group CEO and President of Sampo plc. Board member since May 3, 2011. Member of the Personnel Committee.*

Master of Science (Eng.) (Helsinki University of Technology). Bachelor of Business Administration (Swedish School of Economics and Business Administration, Helsinki).

Deputy CEO of Sampo plc 2001-2009. President of Sampo Life Insurance Company Limited 1999-2000. President of Nova Life Insurance Company Ltd 1996-1998. President and COO of Jaakko Pöyry Group 1991-1996.

Member of the Board of Directors of Nordea Bank AB (publ). Chairman of the Board of Directors of If P&C Insurance Holding Ltd (publ), Kaleva Mutual Insurance Company and Mandatum Life Insurance Company Limited. Member of the Board of Directors of



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Varma Mutual Pension Insurance Company. Chairman of the Board of Directors of The Federation of Finnish Financial Services. Vice Chairman of Confederation of Finnish Industries (EK). Member of the Board of Directors of Central Chamber of Commerce of Finland. Chairman of the Board of Directors of Alma Media Corporation 2005-2011. Member of the Board of Directors of Aspo Plc. 2009. Chairman of the Board of Directors of Aspo Plc. 2000-2008.

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**Table of Contents**

***Proposal of the Corporate Governance and Nomination Committee for Composition of the Board of Directors in 2012***

On January 26, 2012, the Corporate Governance and Nomination Committee announced its proposal to the Annual General Meeting convening on May 3, 2012 regarding the composition of the Board of Directors for a one-year term from the Annual General Meeting 2012 until the close of the Annual General Meeting 2013. The Committee will propose that the number of Board members be 11 and that the following current Nokia Board members be re-elected as members of the Nokia Board of Directors for a term until the close of the Annual General Meeting 2013: Stephen Elop, Henning Kagermann, Jouko Karvinen, Helge Lund, Isabel Marey-Semper, Dame Marjorie Scardino, Risto Siilasmaa and Kari Stadigh.

In addition, the Committee will propose that Bruce Brown, Chief Technology Officer, The Procter & Gamble Company, Mårten Mickos, CEO of Eucalyptus Systems, Inc., and Elizabeth Nelson, independent corporate advisor, be elected as members of the Nokia Board of Directors for the same term until the close of the Annual General Meeting 2013.

The Committee's aim is continually to renew the Board to ensure an efficient Board of international professionals with a diverse mix of skills and experience. The Committee considers potential director candidates based on the short-term and long-term needs of Nokia and the Board and may retain search firms or advisors to identify director candidates. According to Nokia's Articles of Association, the Board consists of a minimum of seven and a maximum of 12 directors. Based on past experience and the current business situation at Nokia, the Committee regards 11 as an appropriate number of directors for the needed diversity in experiences and skills to do the Board's work effectively.

The Chairman and the Vice Chairman are elected by the new Board and confirmed by the independent directors of the Board from among the Board members upon the recommendation of the Corporate Governance and Nomination Committee. The independent directors of the new Board will also confirm the election of the members and Chairmen for the Board's committees from among the Board's independent directors upon the recommendation of the Corporate Governance and Nomination Committee and based on each committee's member qualification standards. These elections will take place at the Board's assembly meeting following the Annual General Meeting.

On January 26, 2012, the Corporate Governance and Nomination Committee announced that it will propose in the assembly meeting of the new Board of Directors after the Annual General Meeting on May 3, 2012 that Risto Siilasmaa be elected as Chairman of the Board and Dame Marjorie Scardino as Vice Chairman of the Board.

**Nokia Leadership Team**

According to our Articles of Association, the Nokia Leadership Team is responsible for the operative management of the company. The Chairman and members of the Nokia Leadership Team are appointed by the Board of Directors. Only the Chairman of the Nokia Leadership Team, the Chief Executive Officer, can be a member of both the Board of Directors and the Nokia Leadership Team.

During 2011 and subsequently, the following appointments to the Nokia Leadership Team were made:

Jerri DeVard was appointed Executive Vice President, Chief Marketing Officer, and member of the Nokia Leadership Team as from January 1, 2011.

Colin Giles was appointed Executive Vice President of Sales and member of the Nokia Leadership Team as from February 11, 2011.

Jo Harlow was appointed Executive Vice President of Smart Devices and member of the Nokia Leadership Team as from February 11, 2011.

**Table of Contents**

Louise Pentland, Chief Legal Officer, was appointed Executive Vice President and member of the Nokia Leadership Team as from February 11, 2011.

Michael Halbherr was appointed Executive Vice President of Location & Commerce and member of the Nokia Leadership Team as from July 1, 2011.

Henry Tirri was appointed Executive Vice President, Chief Technology Officer, and member of the Nokia Leadership Team as from September 22, 2011.

Marko Ahtisaari was appointed Executive Vice President of Design and member of the Nokia Leadership Team as from February 1, 2012. Further, during 2011, the following Nokia Leadership Team members resigned:

Alberto Torres, formerly Executive Vice President of MeeGo Computers, resigned from the Nokia Leadership Team effective as from February 11, 2011 and left Nokia on March 31, 2011.

Richard Green, formerly Executive Vice President and Chief Technology Officer, resigned from the Nokia Leadership Team and left Nokia effective as from September 22, 2011.

Dr. Tero Ojanperä formerly Executive Vice President of Services and Developer Experience resigned from the Nokia Leadership Team and left Nokia effective as from October 1, 2011.

The current members of the Nokia Leadership Team are set forth below.

Stephen Elop, b. 1963

*President and CEO of Nokia Corporation. Member of the Board of Directors of Nokia Corporation. Nokia Leadership Team member and Chairman since 2010. Joined Nokia 2010.*

Bachelor of Computer Engineering and Management (McMaster University, Hamilton, Canada). Doctor of Laws, honorary (McMaster University, Hamilton, Canada).

President of Microsoft Business Division and member of senior membership team of Microsoft Corporation 2008-2010. COO, Juniper Networks, Inc. 2007-2008. President, Worldwide Field Operations, Adobe Systems Inc. 2005-2006. President and CEO (last position), Macromedia Inc. 1998-2005.

Esko Aho, b. 1954

*Executive Vice President, Corporate Relations and Responsibility. Nokia Leadership Team member since 2009. Joined Nokia 2008.*

Master of Social Sciences (University of Helsinki).

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President of the Finnish Innovation Fund, Sitra 2004-2008. Private consultant 2003-2004. Lecturer, Harvard University 2000-2001. Prime Minister of Finland 1991-1995. Chairman of the Centre Party 1990-2002. Member of the Finnish Parliament 1983-2003. Elector in the presidential elections of 1978, 1982 and 1988.

Member of the Board of Directors of Fortum Corporation. Member of the Board of Directors of Terveystalo. Member of the Board of Directors of Technology Academy Finland. Vice Chairman of the Board of Directors of the Federation of Finnish Technology Industries. Member of the Club de Madrid, the InterAction Council, the Science and Technology in Society Forum (STS). Member of the ICC World Council and Vice Chair of ICC Finland.

**Table of Contents**

Marko Ahtisaari, b. 1969

*Executive Vice President, Design. Nokia Leadership Team member since February 1, 2012. With Nokia 2002-2006, rejoined 2009.*

Master of Arts in Philosophy (Graduate School of Arts and Sciences, Columbia University, New York, USA). Bachelor of Arts in Economics and Philosophy (Columbia College, New York, USA).

Senior Vice President, Design, Nokia 2009-2012. CEO and Co-founder, Dopplr 2008-2009. Head of Brand & Design, Blyk 2006-2008. Director, Design Strategy, Nokia 2005-2006. Director, Insight & Innovation, Nokia 2002-2004. Designer, Satama Interactive 1999-2002. Faculty Fellow, Graduate School of Arts and Sciences, Columbia University 1993-1998.

Member of the Board of Directors of Artek oy ab. Member of the Board of Directors of WITNESS.

Jerri DeVard, b. 1958

*Executive Vice President, Chief Marketing Officer. Nokia Leadership Team member since January 1, 2011. Joined Nokia on January 1, 2011.*

B.A. (Economics) (Spelman College, Atlanta, Georgia, USA). M.B.A. (Marketing) (Clark Atlanta University Graduate School of Business, Atlanta, Georgia, USA).

Principal, DeVard Marketing Group 2007-2010. Senior Vice President, Marketing and Brand Management, Verizon Communications Inc. 2005-2007. Senior Vice President, Marketing Communications and Brand Management, Verizon Communications Inc. 2003-2005. Chief Marketing Officer of e-Consumer, Citigroup 2000-2002. Management positions at Citigroup 1998-2000. Vice President, Marketing, Color Cosmetics, Revlon Inc. 1996-1998. Vice President, Sales and Marketing, Harrah's Entertainment 1994-1996. Several brand management positions at the Pillsbury Co. 1983-1993.

Member of the Board of Directors of Belk Inc. Member of the Board of Trustees of Spelman College. Member of the PepsiCo African-American Advisory Board.

Colin Giles, b. 1963

*Executive Vice President, Sales. Nokia Leadership Team member since February 11, 2011. Joined Nokia 1992.*

Bachelor's degree engineering (University of Western Australia). EMBA (London Business School).

Senior Vice President, Sales, Markets, Nokia 2010-2011. President and Senior Vice President for Greater China, Japan and Korea, Nokia 2009-2010. Senior Vice President, Sales, Distribution East, Nokia 2008-2009. Senior Vice President, CMO, Greater China, Nokia 2002-2008. Vice President Sales and Marketing, China, Nokia 2001-2002. General Manager, Taiwan, Nokia 1997-2001. Director, Marketing, Asia Pacific, Nokia

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1994-1997. Management positions in several telecommunications companies in Australia and the United Kingdom.

148

**Table of Contents**

Michael Halbherr, b. 1964

*Executive Vice President, Location & Commerce. Nokia Leadership Team member since July 1, 2011. Joined Nokia 2006.*

PhD. (Electrical Engineering) (ETH, Zurich, Switzerland). Work at MIT Laboratory for Computer Science (Cambridge, MA, USA).

Vice President, Ovi Product Development, Nokia Services 2010-2011. Vice President, Nokia Maps, Nokia Services 2006-2010. CEO, gate5 AG, Berlin, Germany 2001-2006. Managing Director, Europeatweb, Munich, Germany 2000-2001. Manager, The Boston Consulting Group, in the USA and Switzerland 1994-2000.

Jo Harlow, b. 1962

*Executive Vice President, Smart Devices. Nokia Leadership Team member since February 11, 2011. Joined Nokia 2003.*

Bachelor of science (psychology) (Duke University, Durham, North Carolina, USA).

Senior Vice President, Symbian Smartphones, Mobile Solutions, Nokia 2010-2011. Senior Vice President, Smartphones Product Management, Nokia 2009. Vice President, Live Category, Nokia 2008-2009. Senior Vice President, Marketing, Mobile Phones, Nokia 2006-2007. Vice President, Marketing, North America, Mobile Phones, Nokia 2003-2005. Marketing, sales and management roles at Reebok 1992-2003 and Procter & Gamble 1984-1992.

Timo Ihamuotila, b. 1966

*Executive Vice President, Chief Financial Officer. Nokia Leadership Team member since 2007. With Nokia 1993-1996, rejoined 1999.*

*Master of Science (Economics) (Helsinki School of Economics). Licentiate of Science (Finance) (Helsinki School of Economics).*

Executive Vice President, Sales, Markets, Nokia 2008-2009. Executive Vice President, Sales and Portfolio Management, Mobile Phones, Nokia 2007. Senior Vice President, CDMA Business Unit, Mobile Phones, Nokia 2004-2007. Vice President, Finance, Corporate Treasurer, Nokia 2000-2004. Director, Corporate Finance, Nokia 1999-2000. Vice President of Nordic Derivates Sales, Citibank plc. 1996-1999. Manager, Dealing & Risk Management, Nokia 1993-1996. Analyst, Assets and Liability Management, Kansallis Bank 1990-1993.

Member of the Board of Directors of Nokia Siemens Networks B.V. Member of the Board of Directors of Central Chamber of Commerce of Finland.

Mary T. McDowell, b. 1964

*Executive Vice President, Mobile Phones. Nokia Leadership Team member since 2004. Joined Nokia 2004.*

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Bachelor of Science (Computer Science) (College of Engineering at the University of Illinois).

Executive Vice President and Chief Development Officer, Nokia 2008-2010. Executive Vice President and General Manager of Enterprise Solutions, Nokia 2004-2007. Senior Vice President



**Table of Contents**

& General Manager, Industry-Standard Servers, Hewlett-Packard Company 2002-2003. Senior Vice President & General Manager, Industry-Standard Servers, Compaq Computer Corporation 1998-2002. Vice President, Marketing, Server Products Division of Compaq Computer Corporation 1996-1998. Holder of executive, managerial and other positions at Compaq Computer Corporation 1986-1996.

Member of the Board of Directors of Autodesk, Inc. Member of the Board of Visitors of the College of Engineering at the University of Illinois.

Louise Pentland, b. 1972

*Executive Vice President, Chief Legal Officer. Nokia Leadership Team member since February 11, 2011. Joined Nokia 1998.*

LL.B honors (law degree) (Newcastle upon Tyne). Qualified and active Solicitor (England and Wales). Licensed attorney (Member of the New York Bar).

Senior Vice President and Chief Legal Officer, Nokia 2008-2011. Acting Chief Legal Officer, Nokia 2007-2008. Vice President and Head of Legal, Enterprise Solutions, Nokia 2004-2007. Senior Legal Counsel, Nokia Networks 1998-2004. Before joining Nokia, corporate in-house legal positions at Avon Cosmetics Ltd. and law firm positions prior to that in the United Kingdom.

Member of Association of General Counsel, CLO Roundtable Europe, Global Leaders in Law, Corporate Counsel Forum. Vice chair of the International Bar Association.

Niklas Savander, b. 1962

*Executive Vice President, Markets. Nokia Leadership Team member since 2006. Joined Nokia 1997.*

Master of Science (Eng.) (Helsinki University of Technology). Master of Science (Economics and Business Administration) (Swedish School of Economics and Business Administration, Helsinki).

Executive Vice President, Services, Nokia 2007-2010. Executive Vice President, Technology Platforms, Nokia 2006-2007. Senior Vice President and General Manager of Nokia Enterprise Solutions, Mobile Devices Business Unit 2003-2006. Senior Vice President, Nokia Mobile Software, Market Operations 2002-2003. Vice President, Nokia Mobile Software, Strategy, Marketing & Sales 2001-2002. Vice President and General Manager of Nokia Networks, Mobile Internet Applications 2000-2001. Vice President of Nokia Network Systems, Marketing 1997-1998. Holder of executive and managerial positions at Hewlett-Packard Company 1987-1997.

Member of the Board of Directors of Nokia Siemens Networks B.V. Member of the Board of Directors and secretary of Waldemar von Freneckells Stiftelse.

Henry Tirri, b. 1956

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*Executive Vice President, Chief Technology Officer. Nokia Leadership Team member since September 22, 2011. Joined Nokia 2004.*

**Table of Contents**

Ph.D. (computer science) (University of Helsinki). Dr. h.c. (University of Tampere).

Head of Nokia Research Center (NRC), CTO Office 2008-2011. Head of NRC Systems Research laboratory 2007-2008. Nokia Research Fellow 2004-2007.

Adjunct Professor in computer science (University of Helsinki). Adjunct Professor in computational engineering (Aalto University, Helsinki). Member of the Industry Advisory Board of IEEE Computer Society. Member of the Scientific Advisory Board of Institute for Infocom Research. Member of the international Advisory Committee of Tsinghua National Laboratory for Information Science and Technology.

Juha Äkräs, b. 1965

*Executive Vice President, Human Resources. Nokia Leadership Team member since 2010. Joined Nokia 1993.*

Master of Science (Eng.) (Helsinki University of Technology).

Senior Vice President, Human Resources, Nokia 2006-2010. Vice President, Global Operational Human Resources, Nokia 2005-2006. Senior Vice President and General Manager, Core Networks, Nokia Networks 2003-2005. Vice President and General Manager, IP Networks, Nokia Networks 2002-2003. Vice President, Strategy and Business Development, Nokia Networks 2000-2001. Vice President, Customer Services APAC, Nokia Telecommunications 1997-1999. Head of Marketing and Business Development, Customer Services, Nokia Telecommunications 1995-1996. Business Development Manager and Controller, Customer Services, Nokia Cellular Systems 1994-1995. Project Manager, Nokia Telecom AB (Sweden) 1993-1994.

Member of the Board of Directors of Confederation of Finnish Industries (EK).

Dr. Kai Öistämö, b. 1964

*Executive Vice President, Chief Development Officer. Nokia Leadership Team member since 2005. Joined Nokia 1991.*

Doctor of Technology (Signal Processing). Master of Science (Engineering) (Tampere University of Technology).

Executive Vice President, Devices, Nokia 2007-2010. Executive Vice President and General Manager of Mobile Phones, Nokia 2005-2007. Senior Vice President, Business Line Management, Mobile Phones, Nokia 2004-2005. Senior Vice President, Mobile Phones Business Unit, Nokia Mobile Phones 2002-2003. Vice President, TDMA/GSM 1900 Product Line, Nokia Mobile Phones 1999-2002. Vice President, TDMA Product Line 1997-1999. Various technical and managerial positions in Nokia Consumer Electronics and Nokia Mobile Phones 1991-1997.

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Member of the Board of Directors of Sanoma Corporation. Chairman of the Board of The Funding Agency for Technology and Innovation (TEKES).

**Table of Contents****6B. Compensation**

The following section reports the remuneration of the Board of Directors and of the seven named executive officers and describes our compensation policies and actual compensation for the Nokia Leadership Team as well as our use of equity-based incentives.

**Board of Directors**

The following table sets forth the annual remuneration of the members of the Board of Directors for service on the Board and its committees, as resolved at the respective Annual General Meetings in 2011, 2010 and 2009.

Position	2011 (EUR)	2010 (EUR)	2009 (EUR)
Chairman	440 000	440 000	440 000
Vice Chairman	150 000	150 000	150 000
Member	130 000	130 000	130 000
Chairman of Audit Committee	25 000	25 000	25 000
Member of Audit Committee	10 000	10 000	10 000
Chairman of Personnel Committee	25 000	25 000	25 000
<b>Total</b>	<b>1 700 000<sup>(1)</sup></b>	<b>1 700 000<sup>(1)(2)</sup></b>	<b>1 840 000<sup>(1)(2)</sup></b>

- (1) The changes in the aggregate amount of Board pay from year to year are due to changes in the number of Board members and changes in committee composition. The amount of fees paid to the Board and Committee members for the services rendered remained the same. The President and CEO Stephen Elop did not receive remuneration for his service as a member of the Board in 2011.
- (2) The aggregate amount of Board pay also includes the remuneration paid to the former President and CEO in his capacity as a member of the Board of Directors, but in that capacity only.

It is Nokia's policy that director remuneration consists of an annual fee only and no fees are paid for meeting attendance. Approximately 40% of director compensation is paid in the form of Nokia shares that are purchased from the market. It is also Nokia's policy that the Board members retain all Nokia shares received as director compensation until the end of their board membership (except for those shares needed to offset any costs relating to the acquisition of the shares, including taxes). In addition, it is Nokia's policy that non-executive members of the Board do not participate in any of Nokia's equity programs and do not receive stock options, performance shares, restricted shares or any other equity-based or otherwise variable compensation for their duties as Board members.

The President and CEO did not receive compensation for his duties as a member of the Board of Directors in 2011. The total compensation of the President and CEO is described below in Executive Compensation Actual Executive Compensation for 2011 Summary Compensation Table 2011.

The remuneration of the Board of Directors is set annually by our Annual General Meeting by a resolution of a simple majority of the shareholders' votes represented at the meeting, upon the proposal of the Corporate Governance and Nomination Committee of the Board of Directors. The remuneration is set for the period as from the respective Annual General Meeting until the close of the next Annual General Meeting.

When preparing the proposal for the Board remuneration for the shareholders' approval in the Annual General Meeting, it is the policy of the Corporate Governance and Nomination Committee to review and compare the remuneration levels and their criteria paid in other global companies with net sales and business complexity comparable to that of Nokia. The Committee's aim is to ensure that Nokia has an efficient Board of international professionals representing a diverse mix of skills and experience. A competitive Board remuneration contributes to the achievement of this target.

**Table of Contents****Remuneration of the Board of Directors in 2011**

For the year ended December 31, 2011, the aggregate amount of remuneration paid to the members of the Board of Directors for their services as members of the Board and its committees was EUR 1 700 000.

The following table sets forth the total annual remuneration paid to the members of the Board of Directors in 2011, as resolved by the shareholders at the Annual General Meeting on May 3, 2011. For information with respect to the Nokia shares and equity awards held by the members of the Board of Directors, please see Item 6E. Share Ownership.

	Year	Fees Earned or Paid in		Stock Awards (EUR) <sup>(2)</sup>	Option Awards (EUR) <sup>(2)</sup>	Non-Equity Incentive Plan Compensation (EUR) <sup>(2)</sup>	Change in Pension Value	All Compensation (EUR) <sup>(2)</sup>	Total (EUR)
		Cash (EUR) <sup>(1)</sup>					and Nonqualified Deferred Compensation Earnings (EUR) <sup>(2)</sup>		
Jorma Ollila, Chairman <sup>(3)</sup>	2011	440 000							440 000
Marjorie Scardino, Vice Chairman <sup>(4)</sup>	2011	150 000							150 000
Stephen Elop <sup>(5)</sup>	2011								
Bengt Holmström	2011	130 000							130 000
Henning Kagermann <sup>(6)</sup>	2011	155 000							155 000
Per Karlsson	2011	130 000							130 000
Jouko Karvinen <sup>(7)</sup>	2011	140 000							140 000
Helge Lund	2011	130 000							130 000
Isabel Marey-Semper <sup>(8)</sup>	2011	140 000							140 000
Risto Siilasmaa <sup>(9)</sup>	2011	155 000							155 000
Kari Stadigh	2011	130 000							130 000
Total		1 700 000							1 700 000

- (1) Approximately 40% of each Board member's annual remuneration is paid in Nokia shares purchased from the market and the remaining approximately 60% is paid in cash.
- (2) Not applicable to any non-executive member of the Board of Directors. Not applicable to the President and CEO with respect to his service as a member of the Board of Directors.
- (3) Represents the fee of Jorma Ollila for service as Chairman of the Board.
- (4) Represents the fee of Dame Marjorie Scardino for service as Vice Chairman of the Board.
- (5) Stephen Elop did not receive remuneration for his service as a member of the Board. This table does not include remuneration paid to Mr. Elop for his service as the President and CEO. For the compensation paid for his service as the President and CEO, see Executive Compensation Actual Executive Compensation for 2011 Summary Compensation Table 2011 below.
- (6) Represents the fees paid to Henning Kagermann, consisting of a fee of EUR 130 000 for service as a member of the Board and EUR 25 000 for service as Chairman of the Personnel Committee.
- (7) Represents the fees paid to Jouko Karvinen, consisting of a fee of EUR 130 000 for service as a member of the Board and EUR 10 000 for service as a member of the Audit Committee.
- (8) Represents the fees paid to Isabel Marey-Semper, consisting of a fee of EUR 130 000 for service as a member of the Board and EUR 10 000 for service as a member of the Audit Committee.
- (9) Represents the fees paid to Risto Siilasmaa, consisting of a fee of EUR 130 000 for service as a member of the Board and EUR 25 000 for service as Chairman of the Audit Committee.

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## **Table of Contents**

### ***Proposal by the Corporate Governance and Nomination Committee for remuneration to the Board of Directors in 2012***

On January 26, 2012, the Corporate Governance and Nomination Committee of the Board announced its proposal to the Annual General Meeting convening on May 3, 2012 regarding the remuneration to the Board of Directors in 2012. The Committee will propose that the annual fee payable to the Board members elected at the same meeting for a term until the close of the Annual General Meeting in 2013, remain at the same level as during the past four years and be as follows: EUR 440 000 for the Chairman, EUR 150 000 for the Vice Chairman and EUR 130 000 for each member (excluding the President and CEO of Nokia if elected to the Nokia Board); for the Chairman of the Audit Committee and the Chairman of the Personnel Committee an additional annual fee of EUR 25 000, and for each member of the Audit Committee an additional annual fee of EUR 10 000. Further, the Corporate Governance and Nomination Committee will propose that, as in the past, approximately 40 percent of the remuneration be paid in Nokia shares purchased from the market, which shares shall be retained until the end of the board membership in line with the Nokia policy (except for those shares needed to offset any costs relating to the acquisition of the shares, including taxes).

### **Executive Compensation**

#### ***Executive Compensation Philosophy, Programs and Decision-making Process***

The basic principles of our executive compensation philosophy are to attract, retain and motivate talented executive officers on a global basis with the right mix of skills and capabilities to drive Nokia's success in an extremely complex and rapidly evolving mobile communications industry. As a result, we have developed an overall compensation framework that provides competitive base pay rates combined with short- and long-term incentives that are intended to result in a competitive total compensation package.

Our executive compensation programs have been designed to enable Nokia to effectively execute our new strategy announced in early 2011. Specifically, our programs are designed to:

incorporate specific measures that align directly with the execution of our new strategy over the next year;

deliver an appropriate amount of performance-related variable compensation for the achievement of strategic goals and financial targets in both the short- and long-term;

appropriately balance rewards between both Nokia's and an individual's performance; and

foster an ownership culture that promotes sustainability and long-term value creation and align the interests of the executive officers with those of the shareholders through long-term equity-based incentives.

The competitiveness of Nokia's executive compensation levels and practices is one of several key factors the Personnel Committee of the Board considers in its determination of compensation for Nokia executive officers. The Personnel Committee compares, on an annual basis, Nokia's compensation practices, base salaries and total compensation, including short- and long-term incentives against those of other relevant companies with the same or similar revenue, size, global reach and complexity that we believe we compete against for executive talent. The relevant sample includes companies in high technology, telecommunications and Internet services industries, as well as companies from other industries that are headquartered in Europe and the United States. The peer group is determined by the Personnel Committee and reviewed for appropriateness from time to time as deemed necessary due to such factors as changes in the business environment or industry.

The Personnel Committee retains and uses an external compensation consultant from Mercer Human Resources to obtain benchmark data and information on current market trends. The consultant works

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**Table of Contents**

directly for the Chairman of the Personnel Committee and meets annually with the Personnel Committee, without management present, to provide an assessment of the competitiveness and appropriateness of Nokia's executive pay levels and programs. Management provides the consultant with information regarding Nokia's programs and compensation levels in preparation for meeting with the Committee. The consultant of Mercer Human Resources that works for the Personnel Committee is independent of Nokia and does not have any other business relationships with Nokia.

The Personnel Committee reviews the executive officers' compensation on an annual basis, and from time to time during the year when special needs arise. Without management present, the Personnel Committee reviews and recommends to the Board the corporate goals and objectives relevant to the compensation of the President and CEO, evaluates the performance of the President and CEO in light of those goals and objectives, and proposes to the Board the compensation level of the President and CEO. All compensation for the President and CEO, including long-term equity incentives, is approved by the Board and is confirmed by the independent members of the Board. Management's role is to provide any information requested by the Personnel Committee to assist in their deliberations.

In addition, upon recommendation of the President and CEO, the Personnel Committee approves all compensation for all the members of the Nokia Leadership Team (other than the President and CEO of Nokia) and other executive level direct reports to the President and CEO, including long-term equity incentives and goals and objectives relevant to compensation. The Personnel Committee also reviews the results of the evaluation of the performance of the Nokia Leadership Team members (excluding the President and CEO) and other executive level direct reports to the President and CEO and approves their incentive compensation based on such evaluation.

The Personnel Committee considers the following factors, among others, in its review when determining the compensation of Nokia's executive officers or recommending the compensation of the President and CEO to the Board:

the compensation levels for similar positions (in terms of scope of position, revenues, number of employees, global responsibility and reporting relationships) in relevant comparison companies;

the performance demonstrated by the executive officer during the last year;

the size and impact of the particular officer's role on Nokia's overall performance and strategic direction;

the internal comparison to the compensation levels of the other executive officers of Nokia;

past experience and tenure in role; and

the potential and expected future contributions of the executive.

The above factors are assessed by the Personnel Committee in totality.

Nokia's management performed an internal risk assessment of Nokia's compensation policies and practices for all its employees specifically to understand any potential risk factors that would be associated with the changes made to Nokia's compensation programs in 2011 in alignment to our new strategy. Management assessed such factors as Nokia's proportion of fixed compensation in relation to variable compensation, the caps on incentive compensation that can be earned under our plans, performance metrics tied to the incentive programs and the time horizon over which variable compensation may be earned, as well as Nokia's share ownership, severance and recoupment policies and our overall governance structure and practices. Based on the assessment, management concluded that there are no risks arising from Nokia's compensation programs, policies and practices or the changes implemented that are likely to have a material adverse effect on Nokia. The findings of the analysis were reported to the Personnel Committee.





**Table of Contents*****Components of Executive Compensation***

Our compensation program for executive officers includes annual cash compensation in the form of a base salary and short-term cash incentives as well as long-term equity-based incentive awards in the form of performance shares, stock options and restricted shares.

***Annual Cash Compensation***

Base salaries are targeted at globally competitive market levels. The Personnel Committee evaluates and weighs as a whole the appropriate salary levels based on both our US and European peer companies.

Short-term cash incentives are an important element of our variable pay programs and are tied directly to Nokia's and the individual executives performance. The short-term cash incentive opportunity is expressed as a percentage of each executive officer's annual base salary. These award opportunities and measurement criteria are presented in the table below.

Short-term incentives are determined for each executive based on their performance as measured on an individual scorecard. Measurement criteria for the scorecard include a common set of objectives and targets shared by all Nokia Leadership Team members related to the change in strategy, individual strategic objectives for each executive officer and Business Unit-specific key operative targets which consist of key financial targets, key delivery milestones (products and services) and other key performance indicators such as quality and customer satisfaction. A broad range of sustainability and competitive factors are also taken into consideration when assessing an executive's performance. The measures to be included in the scorecard for each executive and the specific targets require the Personnel Committee's approval with respect to the members of the Nokia Leadership Team, and the Board's approval with respect to the President and CEO.

The following table reflects the measurement criteria that are established for the President and CEO and members of the Nokia Leadership Team and the relative weighting of each component for the year 2011. The short-term incentive payout is based on performance relative to targets set for each measurement criteria listed in the table and includes a comparison of each executive officer's individual performance to his/her predefined scorecard objectives and targets.

**Short-Term Incentive as a % of Annual Base Salary in 2011**

<b>Position</b>	<b>Minimum Performance</b>	<b>Target Performance</b>	<b>Maximum Performance</b>	<b>Measurement Criteria</b>
President and CEO	0%	100%	225%	<p>(a) Shared Strategic Change Goals applicable to all Nokia Leadership Team members (including but not limited to targets for Nokia's product and service portfolio, partnerships and organizational performance)</p> <p>(b) Individual Strategic / Change Goals<sup>(1)</sup></p> <p>(c) Key Operative Targets (including net sales, operating profit and gross margin)</p>
Total	0%	100%	225%	

**Table of Contents**

Position	Minimum Performance	Target Performance	Maximum Performance	Measurement Criteria
Nokia Leadership Team	0%	75%	168.75%	<p>(a) Shared Strategic Change Goals applicable to all Nokia Leadership Team members (including but not limited to targets for Nokia's product and service portfolio, partnerships and organizational performance)</p> <p>(b) Individual Strategic / Change Goals<sup>(1)</sup></p> <p>(c) Key Operative Targets (including net sales, operating profit and gross margin)</p> <p>(d) Total Shareholder Return<sup>(2)(3)</sup> (comparison made with key competitors in the high technology, telecommunications and Internet services industries over one-, three- and five-year periods)</p>
Total	0%	100%	206.25%	

- (1) The individual strategic objectives in the scorecard include key criteria which are the cornerstone for the success of Nokia's long-term strategy. Such strategic objectives may include, but are not limited to, Nokia's product and service portfolio, consumer relationships, developer ecosystem, partnerships and other strategic assets.
- (2) Total shareholder return reflects the change in Nokia's share price during an established time period, including the amount of dividends paid, divided by Nokia's share price at the beginning of the period. The calculation is conducted in the same manner for each company in the peer group.
- (3) Only certain members of the Nokia Leadership Team are eligible for the additional 25% total shareholder return element. For Stephen Elop, Total Shareholder Return is measured in the one-time special CEO incentive program approved by the Board of Directors for the two-year period 2011-2012.

When determining the final incentive payout, the Personnel Committee determines an overall score for each executive based on the evaluation (including both qualitative and quantitative scores) of the individual scorecard. The final incentive payout is determined by multiplying each executive's eligible salary by: (i) his/her incentive target percentage; and (ii) the score resulting from scorecard evaluation above. The resulting score for each executive is then multiplied by an affordability factor, which is determined based on overall net sales, profitability and cash flow management of Nokia and which is applicable in a similar manner to all Nokia employees within the short-term cash incentive program. The Personnel Committee applies discretion when evaluating actual results against targets and the resulting incentive payouts. In certain exceptional situations, the actual short-term cash incentive awarded to the executive officer could be zero. The maximum payout is only possible with maximum performance on all measures.

In 2011, the portion of the short-term cash incentive that is tied to the predefined individual scorecard was paid twice a year based on the performance for Nokia's short-term plans that ended on June 30 and December 31, 2011. The portion of the short-term cash incentive that is tied to Total Shareholder Return is paid annually at the end of the year to eligible Nokia Leadership Team members. The payment is based on the Personnel Committee's assessment of Nokia's total shareholder return compared to key peer group companies that are selected by the Personnel Committee in the high technology, Internet services and telecommunications industries and relevant market indices over one-, three- and five-year periods.

**Table of Contents**

For more information on the actual cash compensation paid in 2011 to our executive officers, see [Actual Executive Compensation for 2011 Summary Compensation Table 2011](#) below.

*Long-Term Equity-Based Incentives*

Long-term equity-based incentive awards in the form of performance shares, stock options and restricted shares are used to align executive officers' interests with shareholders' interests, reward for long-term financial performance and encourage retention, while also considering evolving regulatory requirements and recommendations and changing economic conditions. These awards are determined on the basis of the factors discussed above in [Executive Compensation Philosophy, Programs and Decision-making Process](#), including a comparison of an executive officer's overall compensation with that of other executives in the relevant market and the impact on the competitiveness of the executive's compensation package in that market. Performance shares are Nokia's main vehicle for long-term equity-based incentives and reward the achievement of both Nokia's long-term financial results and an increase in share price. Performance shares vest as shares, if at least one of the pre-determined threshold performance levels, tied to Nokia's financial performance, is achieved by the end of the performance period and the value that the executive receives is dependent on Nokia's share price. Stock options are granted with the purpose of creating value for the executive officer, once vested, only if the Nokia share price at the time of vesting is higher than the exercise price of the stock option established at grant. This is also intended to focus executives on share price appreciation and thus aligning the interests of the executives with those of the shareholders. Restricted shares are used primarily for long-term retention purposes and they vest fully after the close of a pre-determined restriction period. Any shares granted are subject to the share ownership guidelines as explained below. All of these equity-based incentive awards are generally forfeited if the executive leaves Nokia prior to their vesting.

*Recoupment of certain equity gains*

The Board of Directors has approved a policy allowing for the recoupment of equity gains realized by Nokia Leadership Team members under Nokia equity plans in case of a financial restatement caused by an act of fraud or intentional misconduct. This policy applies to equity grants made to Nokia Leadership Team members after January 1, 2010.

Information on the actual equity-based incentives granted to the members of our Nokia Leadership Team in 2011 is included in [Item 6E. Share Ownership](#).

***Actual Executive Compensation for 2011****Service Contracts*

Stephen Elop's service contract covers his position as President and CEO as from September 21, 2010. As at December 31, 2011, Mr. Elop's annual base salary, which is subject to an annual review by the Board of Directors and confirmation by the independent members of the Board, is EUR 1 050 000. His incentive targets under the Nokia short-term cash incentive plan are 100% of annual base salary as at December 31, 2011 (description of a separate plan approved by the Board of Directors for 2011-2012 is below). Mr. Elop is entitled to the customary benefits in line with our policies applicable to the top management, however, some of them are being provided on a tax assisted basis. Mr. Elop is also eligible to participate in Nokia's long-term equity-based compensation programs according to Nokia policies and guidelines and as determined by the Board of Directors.

In case of termination by Nokia for reasons other than cause, Mr. Elop is entitled to a severance payment of up to 18 months of compensation (both annual base salary and target incentive) and his

**Table of Contents**

equity will be forfeited as determined in the applicable equity plan rules, with the exception of the equity out of the Nokia Equity Program 2010 which will vest in an accelerated manner. In case of termination by Mr. Elop, the notice period is six months and he is entitled to a payment for such notice period (both annual base salary and target incentive for six months) and all his equity will be forfeited. In the event of a change of control of Nokia, Mr. Elop may terminate his employment upon a material reduction of his duties and responsibilities, upon which he will be entitled to a compensation of 18 months (both annual base salary and target incentive), and his unvested equity will vest in an accelerated manner. In case of termination by Nokia for cause, Mr. Elop is entitled to no additional compensation and all his equity will be forfeited. In case of termination by Mr. Elop for cause, he is entitled to a severance payment equivalent to 18 months of notice (both annual base salary and target incentive), and his unvested equity will vest in an accelerated manner. Mr. Elop is subject to a 12-month non-competition obligation after termination of the contract. Unless the contract is terminated by Nokia for cause, Mr. Elop may be entitled to compensation during the non-competition period or a part of it. Such compensation amounts to the annual base salary and target incentive for the respective period during which no severance payment is paid.

The Board of Directors decided in March 2011 that in order to align Stephen Elop's compensation to the successful execution of the new strategy announced on February 11, 2011, his compensation structure for 2011 and 2012 would be modified. This one-time special CEO incentive program is designed to align Mr. Elop's compensation to increased shareholder value and links a meaningful portion of his compensation directly to the performance of Nokia's share price over the period of 2011-2012. To participate in this program, Mr. Elop invested a portion of his short-term cash incentive opportunity and a portion of the value of his expected annual equity grants into the program as follows:

His target short-term cash incentive level is reduced from 150% to 100% and

His equity grants are reduced to a level below the competitive market value.

In consideration, Mr. Elop has the opportunity to earn a number of Nokia shares at the end of 2012 based on two independent criteria, with half of the opportunity tied to each criterion:

- (1) Total Shareholder Return (TSR) relative to a peer group of companies over the two-year period from December 31, 2010 until December 31, 2012: Minimum payout will require performance at the 50th percentile of the peer group and the maximum payout will occur if the rank is among the top three of the peer group. The peer group consists of a number of relevant companies in the high technology/mobility, telecommunications and Internet services industries.
- (2) Nokia's absolute share price at the end of 2012: Minimum payout if the Nokia share price is EUR 9, with maximum payout if the Nokia share price is EUR 17.

Nokia share price under both criteria is calculated as a 20-day trade volume weighted average share price on the NASDAQ OMX Helsinki. If the minimum performance for neither of the two performance criterion is reached, no share delivery will take place. If the minimum level for one of the criterion is met, a total of 125 000 Nokia ordinary shares will be delivered to Mr. Elop. At maximum level for both criteria, a total of 750 000 Nokia ordinary shares will be delivered to him. Shares earned under this plan during 2011-2012 will be subject to an additional one-year vesting period until the first quarter 2014, at which point the earned and vested shares will be delivered to Mr. Elop. The number of shares earned and to be settled may be adjusted by the Board of Directors under certain exceptional circumstances. Until the shares are settled, no shareholder rights, such as voting or dividend rights, associated with the shares would be applicable. No shares will be delivered if Mr. Elop resigns without cause or is terminated for cause by Nokia before the settlement.

For information about the compensation and benefits received by Mr. Elop during 2011, see Item 6B. Compensation Executive Compensation Summary Compensation Table 2011 and Compensation Executive Compensation Equity Grants in 2011.

**Table of Contents***Pension Arrangements for the Members of the Nokia Leadership Team*

The members of the Nokia Leadership Team participate in the local retirement programs applicable to employees in the country where they reside. Executives in Finland, including Mr. Elop, participate in the Finnish TyEL pension system, which provides for a retirement benefit based on years of service and earnings according to prescribed statutory rules. Under the Finnish TyEL pension system, base pay, incentives and other taxable fringe benefits are included in the definition of earnings, although gains realized from equity are not. The Finnish TyEL pension scheme provides for early retirement benefits at age 62 with a reduction in the amount of retirement benefits. Standard retirement benefits are available from age 63 to 68, according to an increasing scale.

*Actual Compensation for the Members of the Nokia Leadership Team in 2011*

At December 31, 2011, Nokia had a Nokia Leadership Team consisting of 13 members. Changes in the composition in the Nokia Leadership Team during 2011 and subsequently are explained above in Item 6A. Directors and Senior Management Nokia Leadership Team .

The following tables summarize the aggregate cash compensation paid and the long-term equity-based incentives granted to the members of the Nokia Leadership Team under our equity plans in 2011.

Gains realized upon exercise of stock options and share-based incentive grants vested for the members of the Nokia Leadership Team during 2011 are included in Item 6E. Share Ownership.

**Aggregate Cash Compensation to the Nokia Leadership Team for 2011<sup>(1)</sup>**

Year	Number of Members on December 31	Base Salaries EUR	Cash Incentive Payments <sup>(2)</sup> EUR
2011	13	6 229 909	2 166 514

- (1) Includes base salary and cash incentives paid or payable by Nokia for the 2011 fiscal year. The cash incentives are paid as a percentage of annual base salary based on Nokia's short-term cash incentives. Includes compensation paid to Alberto Torres for the period until February 10, 2011, Richard Green until September 21, 2011, Tero Ojanperä until September 30, 2011 and Colin Giles, Jo Harlow and Louise Pentland as from February 11, 2011, Michael Halbherr as from July 1, 2011 and Henry Tirri as from September 22, 2011.
- (2) Excluding any gains realized upon exercise of stock options, which are described in Item 6E. Share Ownership.

**Long-Term Equity-Based Incentives Granted in 2011<sup>(1)</sup>**

	Nokia Leadership Team <sup>(4)(5)</sup>	Total	Total number of participants
Performance Shares at Threshold <sup>(2)(3)</sup>	716 500	5 410 211	4 350
Stock Options	3 383 000	11 751 907	3 200
Restricted Shares	726 000	8 024 880	1 050

- (1) The equity-based incentive grants are generally forfeited if the employment relationship terminates with Nokia prior to vesting. The settlement is conditional upon performance and/or service conditions, as determined in the relevant plan rules. For a description of our equity plans, see

**Table of Contents**

- Note 24 to our consolidated financial statements included in Item 18 of this annual report.
- (2) Includes also the threshold number of shares under the one-time special CEO incentive program.
- (3) For performance shares granted under Nokia Performance Share Plans, at maximum performance, the settlement amounts to four times the number at threshold. For the one-time special CEO incentive program, at maximum performance, the settlement amounts to three times the number at threshold.
- (4) Includes Alberto Torres for the period until February 10, 2011, Richard Green until September 21, 2011, Tero Ojanperä until September 30, 2011 and Colin Giles, Jo Harlow and Louise Pentland as from February 11, 2011, Michael Halbherr as from July 1, 2011 and Henry Tirri as from September 22, 2011.
- (5) For the Nokia Leadership Team members whose employment terminated during 2011, the Long-Term Equity-Based Incentives were forfeited following termination of employment in accordance with plan rules.

**Summary Compensation Table 2011**

Name and Principal Position <sup>(1)</sup>	Year	Salary EUR	Bonus <sup>(2)</sup> EUR	Stock Awards <sup>(3)</sup> EUR	Option Awards <sup>(3)</sup> EUR	Change in Pension Value and Nonqualified Deferred Compensation Earnings <sup>(5)</sup> EUR	All Other Compensation EUR	Total
Stephen Elop, President and CEO				3 752				
				396 <sup>(4)</sup>			2 085 948 <sup>(6)</sup>	
	2011	1 020 000	473 070	1 682	539 443	73 956		7 944 813
	2010	280 303	440 137	607	800 132	340 471	3 115 276	6 658 926
Timo Ihamuotila, EVP, Chief Financial Officer	2011	550 000	173 924	479 493	185 448	150 311	8 743 <sup>(7)</sup>	1 547 919
				1 341				
	2010	423 524	245 634	568	166 328	31 933	8 893	2 217 880
	2009	396 825	234 286	752 856	135 834	15 575	21 195	1 556 571
Mary T. McDowell, EVP, Mobile Phones <sup>(8)</sup>	2011	559 177	202 294	479 493	185 448		249 517 <sup>(9)(10)</sup>	1 675 929
				1 233				
	2010	559 637	314 782	368	142 567		71 386	2 321 740
	2009	508 338	349 911	800 873	152 283		33 726	1 845 131
Jerri DeVard, EVP, Chief Marketing Officer <sup>(8)</sup>	2011	402 489	98 069	609 789	131 503		284 867 <sup>(9)(11)</sup>	1 526 717
Niklas Savander, EVP, Markets	2011	550 000	134 809	479 493	185 448	103 173	21 905 <sup>(12)</sup>	1 474 828
				1 233				
	2010	441 943	247 086	368	142 567		23 634	2 088 598
Tero Ojanperä, EVP, Services and Developer Experience, until September 30, 2011	2011	341 222	45 339	212 480 <sup>(15)</sup>	30 329 <sup>(15)</sup>	55 550	1 085 713 <sup>(13)</sup>	1 770 634
Richard Green, EVP, Chief Technology Officer, February 11 – September 21, 2011	2011	303 472	69 628	320 942 <sup>(15)</sup>	45 494 <sup>(15)</sup>		684 368 <sup>(9)(14)</sup>	1 423 904

(1)

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The positions set forth in this table are the current positions of the named executives. Mr. Ojanperä served as Executive Vice President, Services and Developer Experience until September 30, 2011 and Mr. Green served as Executive Vice President and Chief Technology Officer from February 11, 2011 until September 21, 2011.



**Table of Contents**

- (2) Bonus payments are part of Nokia's short-term cash incentives. The amount consists of the annual cash bonus earned and paid or payable by Nokia for the respective fiscal year.
- (3) Amounts shown represent the grant date fair value of equity grants awarded for the respective fiscal year. The fair value of stock options equals the estimated fair value on the grant date, calculated using the Black-Scholes model. The fair value of performance shares and restricted shares equals the estimated fair value on grant date. The estimated fair value is based on the grant date market price of a Nokia share, less the present value of dividends expected to be paid during the vesting period. The value of the performance shares is presented on the basis of granted number of shares, which is two times the number of shares at threshold. The value of the stock awards with performance shares valued at maximum (four times the number of shares at threshold), for each of the named executive officers, is as follows: Mr. Elop EUR 4 671 337, Mr. Ihamuotila EUR 736 797, Ms. McDowell EUR 736 797, Ms. DeVard EUR 775 199, Mr. Savander EUR 736 797, Mr. Ojanperä EUR 322 753 and Mr. Green EUR 486 352.
- (4) The value of stock awards for Mr. Elop includes EUR 2 033 572 as the fair value of the one-time special CEO incentive program based on the estimated fair value on the grant date. It was calculated using the Black-Scholes model, taking into consideration the two performance criteria, Nokia's share price on an absolute and relative basis to a peer group, as defined by the incentive program rules. Based on the stock price at December 31, 2011, the actual value of this award would be zero.
- (5) The change in pension value represents the proportionate change in the liability related to the individual executives. These executives are covered by the Finnish State employees' pension act ( TyEL ) that provides for a retirement benefit based on years of service and earnings according to the prescribed statutory system. The TyEL system is a partly funded and a partly pooled "pay as you go" system. Effective March 1, 2008, Nokia transferred its TyEL pension liability and assets to an external Finnish insurance company and no longer carries the liability on its financial statements. The figures shown represent only the change in liability for the funded portion. The method used to derive the actuarial IFRS valuation is based upon available salary information at the respective year end. Actuarial assumptions including salary increases and inflation have been determined to arrive at the valuation at the respective year end.
- (6) All other compensation for Mr. Elop in 2011 includes: final one-time payment of EUR 2 080 444 as compensation for lost income from his prior employer which resulted due to his move to Nokia and EUR 5 504 taxable benefit for premiums paid under supplemental medical and disability insurance and for mobile phone and driver.
- (7) All other compensation for Mr. Ihamuotila in 2011 includes: EUR 7 020 for car allowance and EUR 1 723 taxable benefit for premiums paid under supplemental medical and disability insurance and for mobile phone and driver.
- (8) Salaries, benefits and perquisites for Ms. McDowell and Ms. DeVard were paid and denominated in GBP and USD. Amounts were converted using year-end 2011 USD/EUR exchange rate of 1.35 and GBP/EUR rate of 0.86. For year 2010 disclosure, amounts were converted using year-end 2010 USD/EUR exchange rate of 1.32. For year 2009 disclosure, amounts were converted using year-end 2009 USD/EUR exchange rate of 1.43.
- (9) Ms. McDowell, Ms. DeVard and Mr. Green participated in Nokia's U.S Retirement Savings and Investment Plan. Under this 401(k) plan, participants elect to make voluntary pre-tax contributions that are 100% matched by Nokia up to 8% of eligible earnings. 25% of the employer's match vests for the participants during each of the first four years of their employment. Participants earning in excess of the Internal Revenue Service (IRS) eligible earning limits may participate in the Nokia Restoration and Deferral Plan, which allows employees to defer up to 50% of their salary and 100% of their short-term cash incentive. Contributions to the Restoration and Deferral Plan are matched 100% up to 8% of eligible earnings, less contributions made to the 401(k) plan. The company's contributions to the plan are included under "All Other Compensation" column and noted hereafter.

**Table of Contents**

- (10) All other compensation for Ms. McDowell in 2011 includes: EUR 221 792 provided under Nokia's international assignment policy in the UK, EUR 15 524 for car allowance and EUR 12 201 company contributions to the 401(k) Plan.
- (11) All other compensation for Ms. DeVard in 2011 includes: EUR 251 176 provided under Nokia's international assignment policy in the UK, EUR 12 388 for car allowance, EUR 12 201 company contributions to the 401(k) Plan and EUR 9 100 accrued US-related benefits.
- (12) All other compensation for Mr. Savander in 2011 includes: EUR 20 509 for car allowance and EUR 1 396 taxable benefit for premiums paid under supplemental medical and disability insurance and for mobile phone and driver.
- (13) All other compensation for Mr. Ojanperä in 2011 includes: EUR 1 083 839 for severance compensation, EUR 1 354 taxable benefit for premiums paid under supplemental medical and disability insurance and for mobile phone and driver, EUR 370 for medical-related benefits and EUR 150 for service award.
- (14) All other compensation for Mr. Green in 2011 includes: EUR 652 438 for severance compensation, EUR 26 495 for accrued vacation time and EUR 5 435 for company contributions to the 401(k) Plan.
- (15) Mr. Green's and Mr. Ojanperä's equity grants were forfeited and cancelled upon their respective terminations of employment in accordance with plan rules.

**Equity Grants in 2011<sup>(1)</sup>**

Name and Principal Position	Year	Grant Date	Option Awards			Stock Awards			
			Number of Shares underlying Options	Grant Price (EUR)	Grant Date Fair Value <sup>(2)</sup> (EUR)	Performance Shares at Threshold (Number)	Performance Shares at Maximum (Number)	Restricted Shares (Number)	Grant Date Fair Value <sup>(3)</sup> (EUR)
Stephen Elop, President and CEO	2011	Mar. 11				250 000 <sup>(4)</sup>	750 000 <sup>(4)</sup>		2 033 572 <sup>(5)</sup>
	2011	May 13	250 000	6.02	252 745	125 000	500 000	180 000	1 718 824
	2011	Aug. 5	500 000	3.76	286 698				
Timo Ihamuotila, EVP, Chief Financial Officer	2011	May 13	70 000	6.02	70 769	35 000	140 000	50 000	479 493
	2011	Aug. 5	200 000	3.76	114 679				
Mary T. McDowell, EVP, Mobile Phones	2011	May 13	70 000	6.02	70 769	35 000	140 000	50 000	479 493
	2011	Aug. 5	200 000	3.76	114 679				
Jerri DeVard, EVP, Chief Marketing Officer	2011	May 13	45 000	6.02	45 494	22 500	90 000	100 000	609 789
	2011	Aug. 5	150 000	3.76	86 009				
Niklas Savander, EVP, Markets	2011	May 13	70 000	6.02	70 769	35 000	140 000	50 000	479 493
	2011	Aug. 5	200 000	3.76	114 679				
Tero Ojanperä, EVP, Services and Developer Experience, until September 30, 2011 <sup>(6)</sup>	2011	May 13	30 000	6.02	30 329	15 000	60 000	23 000	212 480
Richard Green, EVP, Chief Technology Officer, until September 21, 2011 <sup>(6)</sup>	2011	May 13	45 000	6.02	45 494	22 500	90 000	35 000	320 942

- (1) Including all equity awards made during 2011. Awards were made under the Nokia Stock Option Plan 2011, the Nokia Performance Share Plan 2011 and the Nokia Restricted Share Plan 2011. The table includes also the award made under the one-time special CEO incentive program.

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**Table of Contents**

- (2) The fair value of stock options equals the estimated fair value on the grant date, calculated using the Black-Scholes model. The stock option exercise price was EUR 6.02 on May 13, 2011 and EUR 3.76 on August 5, 2011. NASDAQ OMX Helsinki closing market price was EUR 6.02 at grant date on May 13, 2011 and EUR 3.56 on August 5, 2011.
- (3) The fair value of performance shares and restricted shares equals the estimated fair value on grant date. The estimated fair value is based on the grant date market price of the Nokia share less the present value of dividends expected to be paid during the vesting period. The value of performance shares is presented on the basis of a number of shares, which is two times the number at threshold.
- (4) Represents the threshold and maximum number of shares under the one-time special CEO incentive program granted on March 11, 2011.
- (5) The fair value of the one-time special CEO incentive program equals the estimated fair value on the grant date, calculated using the Black-Scholes model and taking into consideration the two performance criteria, Nokia's share price both on an absolute basis and relative to a peer group, as defined by the incentive program rules. NASDAQ OMX Helsinki closing market price at grant date on March 11, 2011 was EUR 6.08.
- (6) Mr. Green's and Mr. Ojanperä's equity grants were forfeited and cancelled upon their respective terminations of employment in accordance with plan rules.

For information with respect to the Nokia shares and equity awards held by the members of the Nokia Leadership Team as at December 31, 2011, please see Item 6E. Share Ownership.

**Equity-Based Incentive Programs**

***General***

During the year ended December 31, 2011, we administered three global stock option plans, four global performance share plans and four global restricted share plans. Both executives and employees participate in these plans. Our compensation programs promote long-term value creation and sustainability of the company and ensure that remuneration is based on performance. Performance shares have been the main element of the company's broad-based equity compensation program to further emphasize the performance element in employees' long-term incentives. For managers and employees in higher job levels we employ a portfolio approach designed to build an optimal and balanced combination of long-term equity-based incentives, by granting both performance shares and stock options. We believe using both equity instruments help focus recipients on long term financial performance as well as on share price appreciation, thus aligning recipients' interests with those of shareholders and promoting the long-term financial success of the company. The equity-based compensation programs are intended to align the potential value received by participants directly with the performance of Nokia. We have also granted restricted shares to a small selected number of key employees considered key talent whose retention or recruitment is vital to the future success of Nokia.

The equity-based incentive grants are generally conditioned upon continued employment with Nokia, as well as the fulfillment of performance and other conditions, as determined in the relevant plan rules.

The equity program for 2011, which was approved by the Board of Directors, followed the structure of the program in 2010. The participant group for the 2011 equity-based incentive program continued to be broad, with a wide number of employees in many levels of the organization eligible to participate. As at December 31, 2011, the aggregate number of participants in all of our active equity-based programs was approximately 9 300 compared with approximately 11 500 as at December 31, 2010 reflecting changes in our grant guidelines and reduction in eligible population.

For a more detailed description of all of our equity-based incentive plans, see Note 24 to our consolidated financial statements included in Item 18 of this annual report.

**Table of Contents****Performance Shares**

During 2011, we administered four global performance share plans, the Performance Share Plans of 2008, 2009, 2010 and 2011, each of which, including its terms and conditions, has been approved by the Board of Directors.

The performance shares represent a commitment by Nokia Corporation to deliver Nokia shares to employees at a future point in time, subject to Nokia's fulfillment of pre-defined performance criteria. No performance shares will vest unless the Group's performance reaches at least one of the threshold levels measured by two independent, pre-defined performance criteria: the Group's average annual net sales growth for the performance period of the plan and, in the Performance Share Plans of 2008, 2009 and 2010 earnings per share (EPS) at the end of the performance period and in the Performance Share Plan 2011 average annual EPS.

The 2008, 2009, 2010 and 2011 plans have a three-year performance period with no interim payout. The shares vest after the respective performance period. The shares will be delivered to the participants as soon as practicable after they vest. The below table summarizes the relevant periods and settlements under the plans.

<b>Plan</b>	<b>Performance period</b>	<b>Settlement</b>
2008 <sup>(1)</sup>	2008-2010	2011
2009 <sup>(1)</sup>	2009-2011	2012
2010	2010-2012	2013
2011	2011-2013	2014

(1) No Nokia shares were delivered under Nokia Performance Share Plans 2008 and 2009 as Nokia's performance did not reach the threshold level of either performance criteria under both plans.

Until the Nokia shares are delivered, the participants will not have any shareholder rights, such as voting or dividend rights, associated with the performance shares. The performance share grants are generally forfeited if the employment relationship terminates with Nokia prior to vesting.

Performance share grants to the CEO are made upon recommendation by the Personnel Committee and approved by the Board of Directors and confirmed by the independent directors of the Board. Performance share grants to the other Nokia Leadership Team members and other direct reports of the CEO are approved by the Personnel Committee. Performance share grants to eligible employees are approved by the CEO on a quarterly basis, based on an authorization given by the Board of Directors.

**Stock Options**

During 2011 we administered three global stock option plans, the Stock Option Plan 2005, 2007 and 2011, each of which, including its terms and conditions, has been approved by the Annual General Meeting in the year when the plan was launched.

Each stock option entitles the holder to subscribe for one new Nokia share. The stock options are non-transferable and may be exercised for shares only. All of the stock options granted under the Stock Option Plans 2005 and 2007 have a vesting schedule with 25% of the options vesting one year after grant and 6.25% each quarter thereafter. The stock options granted under the 2005 and 2007 plans have a term of approximately five years. The stock options granted under the Stock Option Plan 2011 have a vesting schedule with 50% of stock options vesting three years after grant date and the remaining 50% vesting four years from grant. The stock options granted under the 2011 plan have a term of approximately six years.

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## **Table of Contents**

The exercise price of the stock options is determined at the time of grant, on a quarterly basis, in accordance with a pre-agreed schedule after the release of Nokia's periodic financial results. The exercise prices are based on the trade volume weighted average price of a Nokia share on NASDAQ OMX Helsinki during the trading days of the first whole week of the second month of the respective calendar quarter (i.e., February, May, August or November). With respect to the 2011 Stock Option Plan, should an ex-dividend date take place during that week, the exercise price shall be determined based on the following week's trade volume weighted average price of the Nokia share on NASDAQ OMX Helsinki. Exercise prices are determined on a one-week weighted average to mitigate any day-specific fluctuations in Nokia's share price. The determination of exercise price is defined in the terms and conditions of the stock option plan, which are approved by the shareholders at the respective Annual General Meeting. The Board of Directors does not have the right to change how the exercise price is determined.

Shares will be eligible for dividend for the financial year in which the share subscription takes place. Other shareholder rights will commence on the date on which the subscribed shares are entered in the Trade Register. The stock option grants are generally forfeited if the employment relationship terminates with Nokia.

Stock option grants to the CEO are made upon recommendation by the Personnel Committee and are approved by the Board of Directors and confirmed by the independent directors of the Board. Stock option grants to the other Nokia Leadership Team members and other direct reports of the CEO are approved by the Personnel Committee. Stock option grants to eligible employees are approved by the CEO on a quarterly basis, based on an authorization given by the Board of Directors.

### ***Restricted Shares***

During 2011, we administered four global restricted share plans, the Restricted Share Plan 2008, 2009, 2010 and 2011, each of which, including its terms and conditions, has been approved by the Board of Directors.

Restricted shares are used to recruit, retain, and motivate selected high potential and critical talent who are vital to the future success of Nokia. Restricted shares are used only for key management positions and other critical talent.

All of our restricted share plans have a restriction period of three years after grant. Until the Nokia shares are delivered, the participants will not have any shareholder rights, such as voting or dividend rights, associated with the restricted shares. The restricted share grants are generally forfeited if the employment relationship terminates with Nokia prior to vesting.

Restricted share grants to the CEO are made upon recommendation by the Personnel Committee and approved by the Board of Directors and confirmed by the independent directors of the Board. Restricted share grants to the other Nokia Leadership Team members and other direct reports of the CEO are approved by the Personnel Committee. Restricted share grants to eligible employees are approved by the CEO on a quarterly basis, based on an authorization given by the Board of Directors.

### ***Nokia Equity-Based Incentive Program 2012***

On January 26, 2012, the Board of Directors approved the scope and design of the Nokia Equity Program 2012. Similarly to the earlier broad-based equity incentive programs, it intends to align the potential value received by the participants directly with the long-term financial performance of the company and increases in the company's share price, thus aligning the participants' interests with Nokia shareholders' interests. Nokia's balanced approach toward the use of equity effectively contributes to long-term value creation and sustainability of the company and ensures compensation is based on performance.

## Table of Contents

The Equity Program 2012 consists of performance shares, stock options and restricted shares. The primary equity instruments for the executive employees are performance shares and stock options. Restricted shares are also used for executives in lesser amounts for retention purposes. For directors below the executive level the primary equity instruments are performance shares and restricted shares. Below the director level, performance shares and restricted shares are used on a selective basis to ensure retention and recruitment of functional mastery and other employees deemed critical to Nokia's future success. These equity-based incentive awards are generally forfeited if the employee leaves Nokia prior to vesting.

### *Performance Shares*

The Performance Share Plan 2012 approved by the Board of Directors has a performance period of two years (2012-2013) and a subsequent one-year restriction period. Therefore, the amount of shares based on the financial performance during 2012-2013 will vest after 2014. No performance shares will vest unless Nokia's performance reaches at least one of the threshold levels measured by two independent, pre-defined performance criteria:

(1) *Average Annual Net Sales (non-IFRS)*: EUR 17,394 million (threshold) and EUR 26,092 million (maximum) during the performance period 2012-2013, and

(2) *Average Annual EPS (diluted, non-IFRS)*: EUR 0.04 (threshold) and EUR 0.35 (maximum) during the performance period 2012-2013. Average Annual Net Sales is calculated as an average of the non-IFRS net sales for Nokia Group (excluding Nokia Siemens Networks B.V. and its subsidiaries) for the years 2012 and 2013. Average Annual EPS is calculated as an average of the diluted, non-IFRS earnings per share for the years 2012 and 2013 for Nokia Group. Both the Average Annual Net Sales and the Average Annual EPS criteria are equally weighted and performance under each of the two performance criteria is calculated independent of each other.

We believe the performance criteria set above are challenging. The awards at the threshold are significantly reduced from grant level and achievement of maximum award would serve as an indication that Nokia's performance significantly exceeded current market expectations of our long-term execution.

Achievement of the maximum performance for both criteria would result in the vesting of a maximum of 36 million Nokia shares. Performance exceeding the maximum criteria does not increase the number of performance shares that will vest. Achievement of the threshold performance for both criteria will result in the vesting of approximately 9 million shares. If only one of the threshold levels of performance is achieved, only approximately 4.5 million of the performance shares will vest. If none of the threshold levels is achieved, then none of the performance shares will vest. If the required performance level is achieved, the vesting will occur after 2014. Until the Nokia shares are delivered, the participants will not have any shareholder rights, such as voting or dividend rights associated with these performance shares.

### *Stock Options*

The stock options to be granted in 2012 are out of the Stock Option Plan 2011 approved by the Annual General Meeting in 2011. For more information about the Stock Option Plan 2011 see [Equity-Based Incentive Programs](#) [Stock Options](#) above.

### *Restricted Shares*

Restricted shares under the Restricted Share Plan 2012 approved by the Board of Directors are used as described above to ensure retention and recruitment of functional mastery and other employees

**Table of Contents**

deemed critical to Nokia's future success. The restricted shares under the Restricted Share Plan 2012 have a three-year restriction period. The restricted shares will vest and the resulting Nokia shares be delivered in 2015 and early 2016, subject to fulfillment of the service period criteria. Until the Nokia shares are delivered, the participants will not have any shareholder rights, such as voting or dividend rights associated with these restricted shares.

*Maximum Planned Grants under the Nokia Equity-Based Incentive Program 2012 in Year 2012*

The approximate maximum number of planned grants under the Nokia Equity Program 2012 (i.e. performance shares, stock options and restricted shares) in 2012 are set forth in the table below.

Plan type	Planned Maximum Number of Shares Available for Grants under the Equity Based Incentive Program in 2012
Stock Options	8.5 million
Restricted Shares	14 million
Performance Shares at Maximum <sup>(1)</sup>	36 million

(1) The number of Nokia shares to be delivered at threshold performance is a quarter of maximum performance, i.e., a total of 9 million Nokia shares.

As at December 31, 2011, the total dilutive effect of all Nokia's stock options, performance shares and restricted shares outstanding, assuming full dilution, was approximately 1.8% in the aggregate. The potential maximum effect of the proposed Equity Based Compensation Program for 2012 would be approximately another 1.6%.

**6C. Board Practices****The Board of Directors**

The operations of Nokia are managed under the direction of the Board of Directors, within the framework set by the Finnish Companies Act and our Articles of Association as well as any complementary rules of procedure as defined by the Board, such as the Corporate Governance Guidelines and related Board Committee charters.

The Board represents and is accountable to the shareholders of Nokia. The Board's responsibilities are active, not passive, and include the responsibility regularly to evaluate the strategic direction of Nokia, management policies and the effectiveness with which management implements them. The Board's responsibilities also include overseeing the structure and composition of Nokia's top management and monitoring legal compliance and the management of risks related to Nokia's operations. In doing so, the Board may set annual ranges and/or individual limits for capital expenditures, investments and divestitures and financial commitments not to be exceeded without Board approval.

Nokia has a Risk Policy which outlines Nokia's risk management policies and processes and is approved by the Audit Committee. The Board's role in risk oversight includes risk analysis and assessment in connection with each financial and business review, update and decision-making proposal and is an integral part of all Board deliberations. The Audit Committee is responsible for, among other matters, risk management relating to the financial reporting process and assisting the Board's oversight of the risk management function. Nokia applies a common and systematic approach to risk management across all business operations and processes based on a strategy approved by the Board. Accordingly, risk management at Nokia is not a separate process but a normal daily business and management practice.

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**Table of Contents**

The Board has the responsibility for appointing and discharging the Chief Executive Officer, the Chief Financial Officer and the other members of the Nokia Leadership Team. The Chief Executive Officer, who is separate from Chairman, also acts as President, and his rights and responsibilities include those allotted to the President under Finnish law. Subject to the requirements of Finnish law, the independent directors of the Board confirm the compensation and the employment conditions of the Chief Executive Officer upon the recommendation of the Personnel Committee. The compensation and employment conditions of the other members of the Nokia Leadership Team are approved by the Personnel Committee upon the recommendation of the Chief Executive Officer.

It is the responsibility of the members of the Board to act in good faith and with due care so as to exercise their business judgment on an informed basis in what they reasonably and honestly believe to be in the best interests of the company and its shareholders. In discharging that obligation, the directors must inform themselves of all relevant information reasonably available to them. The Board and each Board Committee also have the power to hire independent legal, financial or other advisors as they deem necessary.

The Board has three committees: Audit Committee, Corporate Governance and Nomination Committee and Personnel Committee. These assist the Board in its duties pursuant to their respective committee charters. The Board may also establish ad hoc committees for detailed reviews or consideration of particular topics to be proposed for the approval of the Board.

The Board conducts annual performance self-evaluations, which also include evaluations of the Board Committees' work, the results of which are discussed by the Board. In line with past years' practice, in 2011, the self-evaluation process consisted of a questionnaire, a one-to-one discussion between the Chairman and each director and a discussion by the entire Board of the outcome of the evaluation, possible measures to be taken, as well as measures taken based on the Board's self-evaluation of the previous year. In addition, performance of the Board Chairman was evaluated in a process led by the Vice Chairman.

Pursuant to the Articles of Association, Nokia Corporation has a Board of Directors composed of a minimum of seven and a maximum of 12 members. The members of the Board are elected for a one-year term at each Annual General Meeting, i.e., as from the close of that Annual General Meeting until the close of the following Annual General Meeting, which convenes each year by June 30. The Annual General Meeting held on May 3, 2011 elected the following 11 members to the Board of Directors: Stephen Elop, Bengt Holmström, Henning Kagermann, Per Karlsson, Jouko Karvinen, Helge Lund, Isabel Marey-Semper, Jorma Ollila, Dame Marjorie Scardino, Risto Siilasmaa and Kari Stadigh.

Nokia Board's leadership structure consists of a Chairman and Vice Chairman, elected annually by the Board and confirmed by the independent directors of the Board from among the Board members upon the recommendation of the Corporate Governance and Nomination Committee. On May 3, 2011, the independent directors of the Board elected Jorma Ollila to continue as Chairman and Dame Marjorie Scardino to continue as Vice Chairman of the Board. The Chairman has certain specific duties as defined by Finnish standards and the Nokia Corporate Governance Guidelines. The Vice Chairman assumes the duties of the Chairman in case the Chairman is prevented from performing his duties. The Board has determined that Nokia Board Chairman, Jorma Ollila, and the Vice Chairman, Dame Marjorie Scardino, are independent as defined by Finnish standards and relevant stock exchange rules.

Nokia does not have a policy concerning the combination or separation of the roles of Chairman and Chief Executive Officer, but the Board leadership structure is dependent on the company needs, shareholder value and other relevant factors applicable from time to time, and respecting the highest corporate governance standards. In 2011, the roles were separate and Jorma Ollila was the Chairman of the Board and the Chief Executive Officer was Stephen Elop.



**Table of Contents**

The current members of the Board are all non-executive, except the President and CEO, who is an executive member of the Board. The Board has determined that all ten non-executive Board members are independent as defined by Finnish standards. Also, the Board has determined that nine of the Board's ten non-executive members are independent directors as defined by the rules of the New York Stock Exchange. Bengt Holmström was determined not to be independent under the rules of the New York Stock Exchange due to a family relationship with an executive officer of a Nokia supplier whose consolidated gross revenue from Nokia accounts for an amount that exceeds the limit provided in the New York Stock Exchange corporate governance standards, but that is less than 4%.

The Board has determined that all of the members of the Audit Committee, including its Chairman, Risto Siilasmaa, are audit committee financial experts as defined in Item 16A of this annual report.

The Board held 19 meetings during 2011, the majority of which were regularly scheduled meetings held in person, complemented by meetings through conference call and other means. In addition, in 2011 the non-executive directors held a meeting without management in connection with each regularly scheduled Board meeting. Also, the independent directors held one meeting separately in 2011.

Directors' attendance at the Board meetings, including Committee meetings, but excluding meetings among the non-executive directors or independent directors only, was as follows in 2011:

	<b>Board meetings</b>	<b>Audit Committee meetings</b>	<b>Personnel Committee meetings</b>	<b>Corporate Governance &amp; Nomination Committee meetings</b>
Stephen Elop (as of May 3, 2011)	100%	N/A	N/A	N/A
Lalita Gupte (until May 3, 2011)	100%	100%	N/A	N/A
Bengt Holmström	95%	N/A	N/A	N/A
Henning Kagermann	95%	N/A	100%	100%
Per Karlsson	10% <sup>(1)</sup>	N/A	20% <sup>(1)</sup>	0% (until May 3, 2011) <sup>(1)</sup>
Jouko Karvinen (as of May 3, 2011)	100%	100%	N/A	N/A
Helge Lund (as of May 3, 2011)	100%	N/A	67%	N/A
Isabel Marey-Semper	90%	100%	N/A	N/A
Jorma Ollila	100%	N/A	N/A	N/A
Marjorie Scardino	85%	N/A	80%	100%
Risto Siilasmaa	100%	100%	N/A	100%
Kari Stadigh (as of May 3, 2011)	100%	N/A	100%	N/A
Keijo Suila (until May 3, 2011)	84%	N/A	N/A	N/A

(1) Per Karlsson was absent from the Board and Committee meetings in 2011 due to illness requiring medication and hospitalization. After recovering he was able to rejoin the Board and Committee meetings as from November 2011.

In addition, many of the directors attended as non-voting observers meetings of a committee in which they were not a member.

According to the Nokia Board practices, the non-executive directors meet without management in connection with each regularly scheduled meeting. Such sessions are chaired by the non-executive Chairman of the Board. If the non-executive Chairman of the Board is unable to chair any of the meetings of non-executive directors, the non-executive Vice Chairman of the Board chairs the meeting.

In addition, the independent directors meet separately at least once annually. All the directors who served on the Board for the term until the close of the Annual General Meeting 2011, except for Per Karlsson, attended Nokia's Annual General Meeting held on May 3, 2011. The Finnish Corporate Governance Code recommends attendance by the Board Chairman and a sufficient number of directors in the general meeting of shareholders to allow the shareholders to exercise their right to present questions to the Board and management.

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## **Table of Contents**

The independent directors of the Board confirm the election of the members and Chairmen for the Board's committees from among the Board's independent directors upon the recommendation of the Corporate Governance and Nomination Committee and based on each committee's member qualification standards. For information about the members and the Chairmen for the Board of Directors and its committees, see Item 6A. Directors and Senior Management Board of Directors above and Committees of the Board of Directors below.

The Corporate Governance Guidelines concerning the directors' responsibilities, the composition and selection of the Board, its committees and certain other matters relating to corporate governance are available on our website, [www.nokia.com/global/about-nokia](http://www.nokia.com/global/about-nokia). Also, the Committee Charter of the Audit Committee, Corporate Governance and Nomination Committee and Personnel Committee are available on our website, [www.nokia.com/global/about-nokia](http://www.nokia.com/global/about-nokia). We also have a Code of Conduct which is equally applicable to all of our employees, directors and management and is available on our website, [www.nokia.com/global/about-nokia](http://www.nokia.com/global/about-nokia). In addition, we have a Code of Ethics for the Principal Executive Officers and the Senior Financial Officers. For more information about our Code of Ethics, see Item 16B. Code of Ethics .

At December 31, 2011, Mr. Elop, the President and CEO, was the only Board member who had a service contract with Nokia. For discussion of the service contract of Mr. Elop, see Item 6B. Executive Compensation Actual Executive Compensation for 2011 Service Contracts.

### **Committees of the Board of Directors**

**The Audit Committee** consists of a minimum of three members of the Board who meet all applicable independence, financial literacy and other requirements of Finnish law and the rules of the stock exchanges where Nokia shares are listed, i.e. NASDAQ OMX Helsinki and the New York Stock Exchange. Since May 3, 2011, the Audit Committee consists of the following three members of the Board: Risto Siilasmaa (Chairman), Jouko Karvinen and Isabel Marey-Semper.

The Audit Committee is established by the Board primarily for the purpose of overseeing the accounting and financial reporting processes of the company and audits of the financial statements of the company. The Committee is responsible for assisting the Board's oversight of (1) the quality and integrity of the company's financial statements and related disclosure, (2) the statutory audit of the company's financial statements, (3) the external auditor's qualifications and independence, (4) the performance of the external auditor subject to the requirements of Finnish law, (5) the performance of the company's internal controls and risk management and assurance function, (6) the performance of the internal audit function, and (7) the company's compliance with legal and regulatory requirements, including also the performance of its ethics and compliance program. The Committee also maintains procedures for the receipt, retention and treatment of complaints received by the company regarding accounting, internal controls, or auditing matters and for the confidential, anonymous submission by employees of the company of concerns regarding accounting or auditing matters. Our disclosure controls and procedures, which are reviewed by the Audit Committee and approved by the Chief Executive Officer and the Chief Financial Officer, as well as our internal controls over financial reporting, are designed to provide reasonable assurance regarding the quality and integrity of the company's financial statements and related disclosures. The Disclosure Committee chaired by the Chief Financial Officer is responsible for the preparation of the quarterly and annual results announcements, and the process includes involvement by business managers, business controllers and other functions, like internal audit, as well as a final review and confirmation by the Audit Committee and the Board. For further information on internal control over financial reporting, see Item 15. Controls and Procedures .

Under Finnish law, our external auditor is elected by our shareholders by a simple majority vote at the Annual General Meeting for one fiscal year at a time. The Audit Committee makes a proposal to the

**Table of Contents**

shareholders in respect of the appointment of the external auditor based upon its evaluation of the qualifications and independence of the auditor to be proposed for election or re-election. Under Finnish law, the fees of the external auditor are also approved by our shareholders by a simple majority vote at the Annual General Meeting. The Committee makes a proposal to the shareholders in respect of the fees of the external auditor, and approves the external auditor's annual audit fees under the guidance given by the Annual General Meeting. For information about the fees paid to our external auditor, PricewaterhouseCoopers, during 2011 see Item 16C. Principal Accountant Fees and Services Auditor Fees and Services .

In discharging its oversight role, the Audit Committee has full access to all company books, records, facilities and personnel. The Committee may retain counsel, auditors or other advisors in its sole discretion, and must receive appropriate funding, as determined by the Committee, from the company for the payment of compensation to such outside advisors.

The Audit Committee meets at least four times a year based upon a schedule established at the first meeting following the appointment of the Committee. The Committee meets separately with the representatives of Nokia's management, heads of the internal audit and ethics and compliance functions, and the external auditor in connection with each regularly scheduled meeting. The head of the internal audit function has at all times a direct access to the Audit Committee, without involvement of management.

The Audit Committee had eight meetings in 2011. The attendance at all meetings was 100%. In addition, any directors who wish to may attend Audit Committee meetings as non-voting observers.

**The Personnel Committee** consists of a minimum of three members of the Board who meet all applicable independence requirements of Finnish law and the rules of the stock exchanges where Nokia shares are listed, i.e. NASDAQ OMX Helsinki and the New York Stock Exchange. Since May 3, 2011, the Personnel Committee consists of the following five members of the Board: Henning Kagermann (Chairman), Per Karlsson, Helge Lund, Dame Marjorie Scardino and Kari Stadigh.

The primary purpose of the Personnel Committee is to oversee the personnel policies and practices of the company. It assists the Board in discharging its responsibilities relating to all compensation, including equity compensation, of the company's executives and their terms of employment. The Committee has overall responsibility for evaluating, resolving and making recommendations to the Board regarding (1) compensation of the company's top executives and their employment conditions, (2) all equity-based plans, (3) incentive compensation plans, policies and programs of the company affecting executives and (4) other significant incentive plans. The Committee is responsible for overseeing compensation philosophy and principles and ensuring the above compensation programs are performance-based, designed with an intention to contribute to the long-term value sustainability of the company, properly motivate management, support overall corporate strategies and are aligned with shareholders' interests. The Committee is responsible for the review of senior management development and succession plans.

The Personnel Committee had five meetings in 2011. The average attendance at the meetings was 74%. In addition, any directors who wish to may attend Personnel Committee meetings as non-voting observers.

For further information on the activities of the Personnel Committee, see Item 6B. Compensation Executive Compensation.

**The Corporate Governance and Nomination Committee** consists of three to five members of the Board who meet all applicable independence requirements of Finnish law and the rules of the stock exchanges where Nokia shares are listed, i.e. NASDAQ OMX Helsinki and the New York Stock

**Table of Contents**

Exchange. Since May 3, 2011, the Corporate Governance and Nomination Committee consists of the following three members of the Board: Dame Marjorie Scardino (Chairman), Henning Kagermann and Risto Siilasmaa.

The Corporate Governance and Nomination Committee's purpose is (1) to prepare the proposals for the general meetings in respect of the composition of the Board and the director remuneration to be approved by the shareholders and (2) to monitor issues and practices related to corporate governance and to propose necessary actions in respect thereof.

The Committee fulfills its responsibilities by (i) actively identifying individuals qualified to become members of the Board and considering and evaluating the appropriate level and structure of director remuneration, (ii) proposing to the shareholders the director nominees for election at the Annual General Meetings as well as the director remuneration, (iii) monitoring significant developments in the law and practice of corporate governance and of the duties and responsibilities of directors of public companies, (iv) assisting the Board and each Committee of the Board in its annual performance self-evaluations, including establishing criteria to be used in connection with such evaluations, (v) developing and recommending to the Board and administering our Corporate Governance Guidelines, and (vi) reviewing the company's disclosure in the Corporate Governance Statement published in Nokia's Finnish annual report.

The Committee has the power to retain search firms or advisors to identify candidates. The Committee may also retain counsel or other advisors, as it deems appropriate. The Committee has the sole authority to retain or terminate such search firms or advisors and to review and approve such search firm or advisor's fees and other retention terms. It is the Committee's practice to retain a search firm to identify new director candidates.

The Corporate Governance and Nomination Committee had five meetings in 2011. The average attendance at the meetings was 87%. In addition, any directors who wish to may attend Corporate Governance and Nomination Committee meetings as non-voting observers.

**6D. Employees**

At December 31, 2011, Nokia employed 130 050 people, compared with 132 427 people at December 31, 2010, and 123 553 at December 31, 2009. The average number of personnel for 2011, 2010 and 2009 was 134 171, 129 355 and 123 171, respectively, divided according to their activity and geographical location as follows:

	2011	2010 <sup>(1)</sup>	2009 <sup>(1)</sup>
Devices & Services	54 850	56 896	54 987
Location & Commerce	7 187	6 766	5 757
Nokia Siemens Networks	71 825	65 379	62 129
Corporate Common Functions	309	314	298
<b>Nokia Group</b>	<b>134 171</b>	<b>129 355</b>	<b>123 171</b>
Finland	18 715	20 956	22 823
Other European countries	34 737	35 175	37 045
Middle-East & Africa	5 017	4 628	4 177
China	22 082	18 923	15 026
Asia-Pacific	29 611	26 976	22 748
North America	8 771	8 128	8 236
Latin America	15 238	14 569	13 116
<b>Nokia Group</b>	<b>134 171</b>	<b>129 355</b>	<b>123 171</b>

**Table of Contents**

- (1) Employee numbers for 2010 and 2009 in relation to Devices & Services and Location & Commerce have been recast for comparability purposes due to the formation of our new Location & Commerce business by combining NAVTEQ and our Devices & Services social location services operations during 2011.

Management believes that we have a good relationship with our employees and with the labor unions.

**6E. Share Ownership****General**

The following section describes the ownership or potential ownership interest in the company of the members of our Board of Directors and the Nokia Leadership Team as at December 31, 2011, either through share ownership or, with respect to the Nokia Leadership Team, through holding of equity-based incentives, which may lead to share ownership in the future.

With respect to the Board of Directors, approximately 40% of director compensation is paid in the form of Nokia shares that is purchased from the market. It is also Nokia's policy that the Board members retain all Nokia shares received as director compensation until the end of their board membership (except for those shares needed to offset any costs relating to the acquisition of the shares, including taxes). In addition, it is Nokia's policy that non-executive members of the Board do not participate in any of Nokia's equity programs and do not receive stock options, performance shares, restricted shares or any other equity based or otherwise variable compensation for their duties as Board members.

For a description of our remuneration for our Board of Directors, see Item 6B. Compensation Board of Directors Remuneration of the Board of Directors in 2011.

The Nokia Leadership Team members receive equity based compensation in the form of performance shares, stock options and restricted shares. For a description of our equity-based compensation programs for employees and executives, see Item 6B. Compensation Equity-Based Incentive Programs.

**Share Ownership of the Board of Directors**

At December 31, 2011, the members of our Board of Directors held the aggregate of 1 478 943 shares and ADSs in Nokia, which represented 0.04 % of our outstanding shares and total voting rights excluding shares held by Nokia Group at that date.

The following table sets forth the number of shares and ADSs held by the members of the Board of Directors as at December 31, 2011.

Name <sup>(1)</sup>	Shares <sup>(2)</sup>	ADSs <sup>(2)</sup>
Jorma Ollila <sup>(3)</sup>	791 284	
Marjorie Scardino	43 300	
Stephen Elop		150 000
Bengt Holmström	41 981	
Henning Kagermann	27 057	
Per Karlsson <sup>(4)</sup>	48 113	
Jouko Karvinen	9 419	
Helge Lund	8 746	
Isabel Marey-Semper	21 280	
Risto Siilasmaa	129 017	
Kari Stadigh	208 746	

**Table of Contents**

- (1) Lalita D. Gupte did not stand for re-election in the Annual General Meeting held on May 3, 2011 and she held 17 910 shares at that time. Keijo Suila did not stand for re-election in the Annual General Meeting held on May 3, 2011 and he held 19 632 shares at that time.
- (2) The number of shares or ADSs includes not only shares or ADSs received as director compensation, but also shares or ADSs acquired by any other means. Stock options or other equity awards that are deemed as being beneficially owned under the applicable SEC rules are not included. For the number of shares or ADSs received as director compensation, see Note 31 to our consolidated financial statements included in Item 18 of this annual report.
- (3) For Jorma Ollila, this table includes his share ownership only. Mr. Ollila was entitled to retain all vested and unvested stock options, performance shares and restricted shares granted to him in respect of his service as the CEO of Nokia prior to June 1, 2006 as approved by the Board of Directors. Therefore, in addition to the above-presented share ownership, Mr. Ollila held, as at December 31, 2011, a total of 400 000 stock options, which all expired without exercise on the same date. The information relating to stock options held by Mr. Ollila as at December 31, 2011 is presented in the table below.

Stock Option Category	Expiration Date	Exercise Price per Share (EUR)	Number of Stock Options		Total Intrinsic Value of Stock Options, December 30, 2011 (EUR)	
			Exercisable	Unexercisable	Exercisable	Unexercisable
2006 2Q	December 31, 2011	18.02	0	0	0	0

The number of stock options in the above table equals the number of underlying shares represented by the option entitlement. The intrinsic value of the stock options in the above table is based on the difference between the exercise price of the options and the closing market price of Nokia shares on NASDAQ OMX Helsinki as at December 30, 2011 of EUR 3.77.

- (4) Per Karlsson's holdings include both shares held personally and shares held through a company.

**Share Ownership of the Nokia Leadership Team**

The following table sets forth the share ownership, as well as potential ownership interest through the holding of equity-based incentives, of the members of the Nokia Leadership Team as at December 31, 2011.

	Shares	Shares Receivable Through Stock Options	Shares Receivable Through Performance Shares at Threshold <sup>(4)</sup>	Shares Receivable Through Performance Shares at Maximum <sup>(5)</sup>	Shares Receivable Through Restricted Shares
Number of equity instruments held by Nokia Leadership Team <sup>(1)</sup>	925 509	4 970 949	993 250 <sup>(6)</sup>	3 723 000 <sup>(6)</sup>	1 983 500
% of the outstanding shares <sup>(2)</sup>	0.020	0.134	0.027	0.100	0.053
% of the total outstanding equity incentives (per instrument) <sup>(3)</sup>		21.42	13.10	12.27	11.96

- (1) Includes 13 Nokia Leadership Team members at year end. Figures do not include those former Nokia Leadership Team members who left during 2011.
- (2) The percentage is calculated in relation to the outstanding number of shares and total voting rights of the company, excluding shares held by Nokia Group.
- (3) The percentage is calculated in relation to the total outstanding equity incentives per instrument.



**Table of Contents**

- (4) No Nokia shares were delivered under Nokia Performance Share Plan 2009 which vested in 2011 as Nokia's performance did not reach the threshold level of either performance criteria. Therefore the shares deliverable at threshold equals zero for the Performance Share Plan 2009.
- (5) No Nokia shares were delivered under Nokia Performance Share Plan 2009 which vested in 2011 as Nokia's performance did not reach the threshold level of either performance criteria. Therefore the shares deliverable at maximum equals zero for Nokia Performance Share Plan 2009. At maximum performance under the Performance Share Plan 2010 and 2011, the number of shares deliverable equals four times the number of performance shares at threshold.
- (6) Includes also the shares receivable through the one-time special CEO incentive program. For the one-time special CEO incentive program, at maximum performance, the number of shares deliverable equals three times the number of shares at threshold.

The following table sets forth the number of shares and ADSs in Nokia held by members of the Nokia Leadership Team as of December 31, 2011.

Name <sup>(1)</sup>	Shares <sup>(2)</sup>	ADSs <sup>(2)</sup>	Became Nokia Leadership Team member (Year)
Stephen Elop		150 000	2010
Esko Aho			2009
Jerri DeVard			2011
Colin Giles	64 018		2011
Michael Halbherr	200 000		2011
Jo Harlow	9 913	15 000	2011
Timo Ihamuotila	62 894		2007
Mary T. McDowell	180 830	5 000	2004
Louise Pentland	25 283		2011
Niklas Savander	93 403		2006
Henry Tirri	6 032		2011
Juha Äkräs	17 904		2010
Kai Öistämö	95 232		2005

- (1) Alberto Torres left the Nokia Leadership Team on February 10, 2011 and held 42 832 shares at that time. Richard Green left the Nokia Leadership Team on September 21, 2011 and did not hold any shares at that time. Tero Ojanperä left the Nokia Leadership Team on September 30, 2011 and held 66 872 shares at that time.
- (2) Stock options or other equity awards that are deemed as being beneficially owned under applicable SEC rules are not included.



**Table of Contents****Stock Option Ownership of the Nokia Leadership Team**

The following table provides certain information relating to stock options held by members of the Nokia Leadership Team as of December 31, 2011. These stock options were issued pursuant to Nokia Stock Option Plans 2005, 2007 and 2011. For a description of our stock option plans, please see Note 24 to our consolidated financial statements in Item 18 of this annual report.

Name	Stock Option Category	Expiration Date	Exercise Price per Share (EUR)	Number of Stock Options <sup>(1)</sup>		Total Intrinsic Value of Stock Options, December 30, 2011 (EUR) <sup>(2)</sup>	
				Exercisable	Unexercisable	Exercisable <sup>(3)</sup>	Unexercisable
Stephen Elop	2010 4Q	December 31, 2015	7.59	0	500 000	0	0
	2011 2Q	December 27, 2017	6.02	0	250 000	0	0
	2011 3Q	December 27, 2017	3.76	0	500 000	0	5 000
Esko Aho	2009 2Q	December 31, 2014	11.18	19 685	15 315	0	0
	2010 2Q	December 31, 2015	8.86	9 375	20 625	0	0
	2011 2Q	December 27, 2017	6.02	0	30 000	0	0
	2011 3Q	December 27, 2017	3.76	0	100 000	0	1 000
Jerri DeVard	2011 2Q	December 27, 2017	6.02	0	45 000	0	0
	2011 3Q	December 27, 2017	3.76	0	150 000	0	1 500
Colin Giles	2006 2Q	December 31, 2011	18.02	0	0	0	0
	2007 2Q	December 31, 2012	18.39	18 000	0	0	0
	2008 2Q	December 31, 2013	19.16	8 125	1 875	0	0
	2009 2Q	December 31, 2014	11.18	11 250	8 750	0	0
	2010 2Q	December 31, 2015	8.86	7 812	17 188	0	0
	2011 2Q	December 27, 2017	6.02	0	45 000	0	0
	2011 3Q	December 27, 2017	3.76	0	150 000	0	1 500
Michael Halbherr	2007 2Q	December 31, 2012	18.39	533	0	0	0
	2008 2Q	December 31, 2013	19.16	3 043	707	0	0
	2009 2Q	December 31, 2014	11.18	3 935	3 065	0	0
	2010 2Q	December 31, 2015	8.86	2 031	4 469	0	0
	2011 2Q	December 27, 2017	6.02	0	15 000	0	0
	2011 3Q	December 27, 2017	3.76	0	255 000	0	2 550
Jo Harlow	2006 2Q	December 31, 2011	18.02	0	0	0	0
	2007 2Q	December 31, 2012	18.39	10 000	0	0	0
	2008 2Q	December 31, 2013	19.16	2 837	663	0	0
	2009 2Q	December 31, 2014	11.18	3 090	2 410	0	0
	2010 2Q	December 31, 2015	8.86	7 812	17 188	0	0
	2011 2Q	December 27, 2017	6.02	0	70 000	0	0
	2011 3Q	December 27, 2017	3.76	0	200 000	0	2 000
Timo Ihamuotila	2006 2Q	December 31, 2011	18.02	0	0	0	0
	2007 2Q	December 31, 2012	18.39	32 000	0	0	0
	2008 2Q	December 31, 2013	19.16	16 250	3 750	0	0
	2009 2Q	December 31, 2014	11.18	19 685	15 315	0	0
	2009 4Q	December 31, 2014	8.76	8 750	11 250	0	0
	2010 2Q	December 31, 2015	8.86	21 875	48 125	0	0
	2011 2Q	December 27, 2017	6.02	0	70 000	0	0
	2011 3Q	December 27, 2017	3.76	0	200 000	0	2 000
Mary T. McDowell	2006 2Q	December 31, 2011	18.02	0	0	0	0
	2007 2Q	December 31, 2012	18.39	55 000	0	0	0
	2008 2Q	December 31, 2013	19.16	22 750	5 250	0	0
	2009 2Q	December 31, 2014	11.18	30 935	24 065	0	0
	2010 2Q	December 31, 2015	8.86	18 750	41 250	0	0
	2011 2Q	December 27, 2017	6.02	0	70 000	0	0
	2011 3Q	December 27, 2017	3.76	0	70 000	0	0

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2011 3Q	December 27, 2017	3.76	0	200 000	0	2 000
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177

**Table of Contents**

Name	Stock Option Category	Expiration Date	Exercise Price per Share (EUR)	Number of Stock Options <sup>(1)</sup>		Total Intrinsic Value of Stock Options, December 30, 2011 (EUR) <sup>(2)</sup>	
				Exercisable	Unexercisable	Exercisable	Unexercisable
Louise Pentland	2006 2Q	December 31, 2011	18.02	0	0	0	0
	2007 2Q	December 31, 2012	18.39	3 333	0	0	0
	2008 2Q	December 31, 2013	19.16	3 250	750	0	0
	2009 2Q	December 31, 2014	11.18	6 750	5 250	0	0
	2010 2Q	December 31, 2015	8.86	9 375	20 625	0	0
	2011 2Q	December 27, 2017	6.02	0	45 000	0	0
	2011 3Q	December 27, 2017	3.76	0	150 000	0	1 500
Niklas Savander	2006 2Q	December 31, 2011	18.02	0	0	0	0
	2007 2Q	December 31, 2012	18.39	32 000	0	0	0
	2008 2Q	December 31, 2013	19.16	22 750	5 250	0	0
	2009 2Q	December 31, 2014	11.18	30 935	24 065	0	0
	2010 2Q	December 31, 2015	8.86	18 750	41 250	0	0
	2011 2Q	December 27, 2017	6.02	0	70 000	0	0
	2011 3Q	December 27, 2017	3.76	0	200 000	0	2 000
Henry Tirri	2006 2Q	December 31, 2011	18.02	0	0	0	0
	2007 2Q	December 31, 2012	18.39	1 333	0	0	0
	2008 2Q	December 31, 2013	19.16	2 837	663	0	0
	2009 2Q	December 31, 2014	11.18	6 750	5 250	0	0
	2010 2Q	December 31, 2015	8.86	6 250	13 750	0	0
	2011 2Q	December 27, 2017	6.02	0	27 000	0	0
	2011 4Q	December 27, 2017	4.84	0	118 000	0	0
Juha Äkräs	2006 2Q	December 31, 2011	18.02	0	0	0	0
	2007 2Q	December 31, 2012	18.39	10 000	0	0	0
	2008 2Q	December 31, 2013	19.16	4 875	1 125	0	0
	2009 2Q	December 31, 2014	11.18	6 750	5 250	0	0
	2010 2Q	December 31, 2015	8.86	12 500	27 500	0	0
	2011 2Q	December 27, 2017	6.02	0	45 000	0	0
	2011 3Q	December 27, 2017	3.76	0	150 000	0	1 500
Kai Öistämö	2006 2Q	December 31, 2011	18.02	0	0	0	0
	2007 2Q	December 31, 2012	18.39	55 000	0	0	0
	2008 2Q	December 31, 2013	19.16	26 000	6 000	0	0
	2009 2Q	December 31, 2014	11.18	33 750	26 250	0	0
	2010 2Q	December 31, 2015	8.86	21 875	48 125	0	0
	2011 2Q	December 27, 2017	6.02	0	45 000	0	0
	2011 3Q	December 27, 2017	3.76	0	150 000	0	1 500
Stock options held by the members of the Nokia Leadership Team as at December 31, 2011, Total <sup>(4)</sup>				648 586	4 322 363		24 050
All outstanding stock option plans (global plans), Total				6 767 629	16 435 699		

(1) Number of stock options equals the number of underlying shares represented by the option entitlement. Stock options granted under 2005, 2007 and 2011 Stock Option Plans have different vesting schedules. The Group's global Stock Option Plans 2005 and 2007 have a vesting schedule with a 25% vesting one year after grant, and quarterly vesting thereafter, each of the quarterly lots representing 6.25% of the total grant. The grants vest fully in four years. The Group's global Stock Option Plan 2011 has a vesting schedule with 50% of stock options vesting three years after grant date and the remaining 50% vesting four years from grant.

**Table of Contents**

- (2) The intrinsic value of the stock options is based on the difference between the exercise price of the options and the closing market price of Nokia shares on NASDAQ OMX Helsinki as at December 30, 2011 of EUR 3.77.
- (3) For gains realized upon exercise of stock options for the members of the Nokia Leadership Team, see the table in [Stock Option Exercises and Settlement of Shares](#) below.
- (4) During 2011, the following executives stepped down from the Nokia Leadership Team: Alberto Torres, Richard Green and Tero Ojanperä. The information related to stock options held for each former executive is as of the date of resignation from the Nokia Leadership Team and is presented in the table below.

Name	Stock Option Category	Expiration Date	Exercise Price Share (EUR)	Number of Stock Options <sup>(1)</sup>		Total Intrinsic Value of Stock Options, (EUR) <sup>(7)</sup>	
				Exercisable	Unexercisable	Exercisable <sup>(3)</sup>	Unexercisable
Alberto Torres <sup>(5)</sup> as per February 10, 2011	2006 2Q	December 31, 2011	18.02	7 200	0	0	0
	2007 2Q	December 31, 2012	18.39	15 750	2 250	0	0
	2008 2Q	December 31, 2013	19.16	6 250	3 750	0	0
	2009 2Q	December 31, 2014	11.18	7 500	12 500	0	0
	2010 2Q	December 31, 2015	8.86	0	40 000	0	0
Richard Green <sup>(6)</sup> as per September 21, 2011	2010 3Q	December 31, 2015	7.29	0	25 000	0	0
	2011 2Q	December 27, 2017	6.02	0	45 000	0	0
Tero Ojanperä <sup>(6)</sup> as per September 30, 2011	2006 2Q	December 31, 2011	18.02	60 000	0	0	0