

NOKIA CORP  
Form 20-F  
March 19, 2015  
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As filed with the Securities and Exchange Commission on March 19, 2015

**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, 2014

Commission file number 1-13202

**Nokia Corporation**

(Exact name of Registrant as specified in its charter)

**Republic of Finland**

(Jurisdiction of incorporation)

**Karaportti 3, P.O. Box 226, FI-00045 NOKIA GROUP, Finland**

(Address of principal executive offices)

**Riikka Tieaho, Vice President, Corporate Legal, Telephone: +358 (0) 10 44 88 000, Facsimile: +358 (0) 10 44 81 002, Karaportti 3, P.O. Box 226, FI-00045 NOKIA GROUP, 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**

American Depositary Shares  
Shares

**Name of each exchange on which registered**

New York Stock Exchange  
New York Stock Exchange<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: **3 745 044 246.**

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:

International Financial Reporting Standards as issued by the International Accounting Standards Board <input checked="" type="checkbox"/>	U.S. GAAP <input type="checkbox"/>
	Other <input type="checkbox"/>

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

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

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Forward-looking statements

It should be noted that Nokia and its businesses are exposed to various risks and uncertainties and certain statements herein that are not historical facts are forward-looking statements, including, without limitation, those regarding:

- A) expectations, plans or benefits related to Nokia's strategies;
- B) expectations, plans or benefits related to future performance of Nokia's businesses Nokia Networks, HERE and Nokia Technologies;
- C) expectations, plans or benefits related to changes in our management and other leadership, operational structure and operating model;
- D) expectations regarding market developments, general economic conditions and structural changes;
- E) expectations and targets regarding performance, including those related to market share, prices, net sales and margins;
- F) timing of the deliveries of our products and services;
- G) expectations and targets regarding our financial performance, operating expenses, taxes, cost savings and competitiveness, as well as results of operations;
- H) expectations and targets regarding collaboration and partnering arrangements;
- I) outcome of pending and threatened litigation, arbitration, disputes, regulatory proceedings or investigations by authorities;
- J) expectations regarding restructurings, investments, uses of proceeds from transactions, acquisitions and divestments and our ability to achieve the financial and operational targets set in connection with any such restructurings, investments, divestments and acquisitions, including any expectations, plans or benefits related to

or caused by the transaction where Nokia sold substantially all of its Devices & Services business to Microsoft on April 25, 2014;

K) statements preceded by or including believe , expect , anticipate , foresee , sees , target , estimate , design , plans , intends , focus , continue , project , should , will or similar expressions.

These statements are based on the 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. We describe the risks and uncertainties that affect the Nokia Group or are relevant to all Nokia businesses at the beginning of this section and provide towards the end information on additional risks that are primarily related to the individual Nokia businesses: Nokia Networks, HERE and Nokia Technologies. Factors, including risks and uncertainties that could cause such differences include, but are not limited to:

- 1) our ability to identify market trends and business opportunities to select and execute strategies successfully and in a timely manner, and our ability to successfully adjust our operations and operating models;
- 2) our ability to sustain or improve the operational and financial performance of our businesses and correctly identify or successfully pursue new business opportunities;
- 3) our dependence on general economic and market conditions;
- 4) our exposure to regulatory, political or other developments in various countries or regions;
- 5) our ability to invent new relevant technologies, products and services, to develop and maintain our intellectual property portfolio and to maintain the existing sources of intellectual property related revenue and establish new such sources;
- 6) our ability to protect our intellectual property rights and defend claims against third parties, as well as increased licensing costs and restrictions on our ability to use certain technologies;
- 7) the potential complex tax issues, tax disputes and tax obligations we may face, including the obligation to pay additional taxes in various jurisdictions and our actual or anticipated performance, among other factors, which could result in allowances related to deferred tax assets;
- 8) our ability to retain, motivate, develop and recruit appropriately skilled employees;
- 9) the performance of the parties we partner and collaborate with, as well as that of our financial counterparties, and our ability to achieve successful collaboration or partnering arrangements;
- 10) 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;

- 11) the impact of unfavorable outcome of litigation, arbitration, contract-related disputes or allegations of health hazards associated with our business;
- 12) any inefficiency, malfunction or disruption of a system or network that our operations rely on or any impact of a possible cybersecurity breach;
- 13) our ability to achieve targeted benefits from or successfully implement planned transactions, such as acquisitions, divestments, mergers or joint ventures, manage unexpected liabilities related thereto and achieve the targeted benefits;
- 14) our ability to manage our operating expenses and reach targeted results through efforts aimed at improving our financial performance, for instance through cost savings and other efforts aimed at increased competitiveness;
- 15) our ability to optimize our capital structure as planned and re-establish our investment grade credit rating;
- 16) Nokia Networks' ability to execute its strategy or to effectively and profitably adapt its business and operations in a timely manner to the increasingly diverse needs of its customers in the mobile broadband infrastructure and related services market or to such technological developments;
- 17) Nokia Networks' ability to effectively and profitably invest in new competitive high-quality products, services, upgrades and technologies and bring them to market in a timely manner;
- 18) Nokia Networks' dependence on a limited number of customers, further operator consolidation and large multi-year agreements;
- 19) Nokia Networks' ability to manage our manufacturing, service creation and delivery, as well as our logistics efficiently and without interruption;
- 20) Nokia Networks' dependence on a limited number of suppliers, who may fail to deliver sufficient quantities of fully functional products and components or delivery timely services meeting our customers' needs;

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- 21) adverse developments with respect to customer financing or extended payment terms Nokia Networks provides to customers;
- 22) the intense competition HERE faces and its ability to effectively and profitably invest in new competitive high-quality services and data and bring these to market in a timely manner or adjust its operations efficiently;
- 23) HERE's dependence on the overall automotive market developments and customer business conditions;
- 24) HERE's dependence, especially with respect to sales to the automotive industry, on a limited number of customers and large multi-year agreements;
- 25) Nokia Technologies' ability to maintain its existing sources of intellectual property related revenue or establish new sources;
- 26) Nokia Technologies' dependence on a limited number of key licensees that contribute proportionally significant patent licensing income, including the outcome of the binding arbitration with Samsung expected in 2015;
- 27) Nokia Technologies' dependence on adequate regulatory protection for parented or other propriety technologies; and
- 28) Nokia Technologies' ability to execute its plans through business areas such as technology licensing, licensing the Nokia brand and other business ventures including technology innovation and incubation, as well as the risk factors specified on pages 74 to 89 of this annual report on Form 20-F under "Operating and financial review and prospects - Risk factors". Other unknown or unpredictable factors or underlying assumptions subsequently proven 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.

**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 and which refers generally to Nokia's continuing operations, except where we separately specify that the term means Nokia Corporation or a particular subsidiary or business segment only or the discontinued operations, and except that references to our shares, matter 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, and references to dollars, US dollars, USD or \$ are to the currency of the United States. Solely for the convenience of the reader, this annual report on Form 20-F contains conversions of selected euro amounts into US dollars at specified rates, or, if not so specified, at the rate of 1.2101 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 31, 2014. 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.

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 IFRS as adopted by the European Union ( IFRS ). In accordance with the rules and regulations of the 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 ADRs, evidencing ADS, 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 [company.nokia.com/financials](http://company.nokia.com/financials). This annual report on Form 20-F is also available at [company.nokia.com/financials](http://company.nokia.com/financials) 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 43077, Providence, RI 02940-3081, United States. 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.

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Nokia in 2014

At Nokia, we're excited by where technology will lead us. We're reimagining a world where technology blends into our lives. Technology that works for us, discreetly yet magically in the background, enriching our lives.

But for some, this new technology world, where everything and everybody are connected, can be challenging. Fear of intrusion, technology that seems hard to understand or control, and the complexity of choice, can be overwhelming.

That's why our focus is, and has always been, on people. We work together, with our partners, customers, and across our businesses, to create human technology that helps people thrive. Effortless, simple, and intuitive technology, designed to enable new and extraordinary experiences in people's lives each day.

We see the possibilities of technology. The human possibilities.

Read more online: [company.nokia.com](http://company.nokia.com)

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The year 2014 was one of fundamental change for Nokia, a new chapter in our storied history, which stretches back to the founding of a small paper mill in southern Finland in 1865. Following the sale of substantially all of our Devices & Services business to Microsoft (the Sale of the D&S Business ), which was completed on April 25, 2014, Nokia emerged with three businesses – Nokia Networks, HERE and Nokia Technologies – and a significantly improved financial footing.

Nokia Networks provides trusted mobile connectivity infrastructure and services; HERE is our mapping and location intelligence business; and Nokia Technologies is our engine for future innovation and licensing. These three businesses are leaders in their respective fields, key participants in the rapidly

evolving world of technology which is as much about connecting things as about connecting people. We expect to see more than 50 billion connected things – devices, modules and sensors – by year 2025. The opportunity is extraordinary not just for us, but for the world at large.

We have a powerful role to play in this increasingly connected world. We see ourselves as an enabler, opening and creating possibilities for our customers, partners and consumers. Modern-day Nokia’s focus is, and always has been, on connecting people. Thus, we aim to expand the human possibilities of technology.

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Nokia at a glance

Our three businesses are leaders in their respective fields, key participants in the rapidly evolving world of technology which is as much about connecting things as about connecting people.

**Our focus**

We are focused on three businesses: network infrastructure software, hardware and services, which we offer through Nokia Networks; mapping and location intelligence, which we provide through HERE; and advanced technology development and licensing, which we pursue through Nokia Technologies. Each of these businesses is a leader in its respective field.

Through our three businesses, we have a global presence with operations and research and development ( R&D ) facilities in Europe, North America and Asia, sales in approximately 140 countries, and we employ approximately 62 000 people. We are also a major investor in R&D, with expenditure through the three businesses amounting to more than EUR 2.5 billion in 2014.

**Net sales 2014 by business**

**Net sales 2014 by region**

Year-on-year change is in parentheses.

140+

Sales in over 140 countries in 2014

61 656

Employees at December 31, 2014

(2013: 55 244)



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Overview

### **Nokia Networks**

Nokia Networks is the largest of our businesses. As the world's mobile broadband specialist, we help our customers to bring their subscribers unrivalled quality of experience, to maximize the value of their subscriber base and to run extremely efficient mobile networks.

Ranked third in terms of market share in mobile radio networks and telecommunications services, Nokia Networks is a significant player in its chosen markets and, with sales in over 120 countries, served by approximately 54 600 employees, it has the global reach and scale to deliver high-quality solutions to the largest operators.

Nokia Networks has more than 100 years of experience in telecommunications, from 2G to 3G to 4G ( LTE ) and now the emerging 5G, and it has always been and intends to remain at the cutting edge of mobile technology.

### **HERE**

HERE is a global leader in the mapping and location intelligence business. HERE builds high-definition ( HD ) maps and combines them with cloud technology to enable rich, real-time location experiences in a broad range of connected devices from smartphones and tablets to wearables and vehicles.

In the automotive segment HERE is a clear leader, with its maps powering four out of five in-car navigation systems in North

America and Europe, and its location platform is used by leading internet companies.

All in all, more than 13 million cars were sold with HERE maps on board during 2014. HERE offers maps for more than 190 countries, drive navigation for 118 countries and live traffic information for 44 countries.

### **Nokia Technologies**

Nokia Technologies is a leading innovator of the core technologies enabling the Programmable World, where everything and everyone will be connected. Nokia Technologies is expanding Nokia's successful patent licensing program and licensing proprietary technologies to enable its customers to build better products.

Nokia Technologies is also helping customers leverage the value of the Nokia brand in the consumer device space, starting with the Nokia N1 Android™ tablet.<sup>(2)</sup>

Finally, the Nokia Technologies incubation program focuses on developing new ideas and prototypes. All of these activities are supported by its world-class Nokia Labs R&D team, which is continuing more than two decades of Nokia leadership in multimedia, connectivity, sensing and material technologies as well as imaging, audio, web and cloud technologies.

<b>Nokia Networks</b>	<b>HERE</b>	<b>Nokia Technologies</b>
11 198m	970m	578m
<b>Net sales 2014</b> (2013: 11 282m)	<b>Net sales 2014</b> (2013: 914m)	<b>Net sales 2014</b> (2013: 529m)
1 210m	(32)m	343m
<b>Operating profit 2014</b> (2013: 420m)	<b>Operating loss<sup>(1)</sup> 2014</b> (2013: (154)m)	<b>Operating profit 2014</b> (2013: 310m)
1 786m	545m	161m
<b>R&amp;D expenses 2014</b> (2013: 1 822m)	<b>R&amp;D expenses 2014</b> (2013: 648m)	<b>R&amp;D expenses 2014</b> (2013: 147m)

<sup>(1)</sup>Excludes a goodwill impairment charge of 1 209m, which resulted in an operating loss of 1 241m in 2014.

Derived from our financial statements which were prepared in accordance with International Financial Reporting Standards, IFRS.

<sup>(2)</sup> Android is a trademark of Google Inc.

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2014 - A year of reinvention

2014

March

**March 24, 2014**

Nokia Networks completed the acquisition of Mesaplexx, Pty Ltd, including its compact, high-performance radio frequency filter technology which can be used to reduce the size of a radio base station.

April

**April 25, 2014**

Nokia completed the sale of substantially all of its Devices & Services business to Microsoft. The transaction, which also included an agreement to license patents to Microsoft, was originally announced on September 3, 2013.

**April 29, 2014:**

; The Nokia Board of Directors appointed Rajeev Suri as the President and Chief Executive Officer of Nokia Corporation and announced the appointment of the Nokia Group Leadership Team effective as of May 1, 2014.

; Nokia announced its new strategy that builds on

May

**May 12 and May 15, 2014**

Nokia's credit rating was upgraded by both Moody's and Standard & Poor's, respectively, supporting Nokia's long-term target of re-establishing its investment grade credit rating.

**May 28, 2014**

HERE completed the acquisition of Desti, which helps travelers find what they are looking for by using artificial intelligence and natural language processing technology.

June

**June 17, 2014**

Nokia's Annual General Meeting resolved to distribute an ordinary dividend of EUR 0.11 per share for the fiscal year 2013 and a special dividend of EUR 0.26 per share. The Annual General Meeting also selected a new Board of Directors for a term ending at the close of the Annual General Meeting in 2015. Risto Siilasmaa continued to serve as the Chairman of the Board of Directors.

its three businesses: Nokia Networks, HERE and Nokia Technologies.

; Nokia announced plans for a EUR 5 billion capital structure optimization program focused on recommencing dividend payments, distributing excess capital to shareholders, and reducing interest-bearing debt.

**April 25, 2014**

Nokia completed the sale of substantially all of its Devices & Services business to Microsoft. The transaction, which also included an agreement to license patents to Microsoft, was originally announced on September 3, 2013.

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## Overview

July	August	September	October	November
<b>July 2, 2014</b>	<b>August 22, 2014</b>	<b>September 22, 2014</b>	<b>October 23, 2014</b>	<b>November 14, 2014</b>
HERE completed the acquisition of Medio Systems Inc., a pioneer in the emerging field of real-time predictive analytics. Through the acquisition, HERE will be able to more quickly deliver on its vision to create maps and location services across screens and operating systems that change according to the situation.	Nokia Networks completed the acquisition of SAC Wireless, a premier self-performing provider of infrastructure and network deployment solutions. The acquisition builds upon Nokia Networks' existing network implementation service capabilities and is expected to increase its market share in this space.	Nokia returned to the Euro STOXX 50 Index.	Nokia announced the appointment of Sean Fernback as President of HERE, Nokia's mapping and location intelligence business, and as a member of the Nokia Group Leadership Team.	Nokia held its Capital Markets Day event in London, the United Kingdom, where the company shared its updated vision, strategic priorities and long-term financial targets.
<b>July 3, 2014</b>				<b>November 18, 2014</b>
Nokia Networks acquired a broad solution for advanced geolocation capabilities from NICE Systems to enhance the planning and optimization of mobile networks.				Nokia announced the launch of the Nokia N1, the first Nokia-branded Android tablet and its first brand-licensed consumer device following the sale of substantially all of the Devices & Services business. Nokia's original equipment manufacturer partner started sales in Q1 2015 in China, with other markets to follow.
<b>July 24, 2014</b>				
Nokia announced the appointment of Ramzi Haidamus as President of Nokia Technologies and as a member of the Nokia Group Leadership Team.				



**July 31, 2014**

Nokia Networks announced its intention to acquire part of the wireless networks business of Panasonic System Networks Company Limited, enhancing Nokia Networks existing mobile broadband capabilities. The transaction was completed on January 1, 2015.

**April 29, 2014**

Rajeev Suri was appointed the President and CEO of Nokia Corporation, the Nokia Group Leadership Team was appointed, and Nokia's new strategy and a EUR 5bn capital structure optimization program were announced.

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## Key data

The following table sets forth the summary key financial and non-financial information for the years ended December 31, 2014 and 2013 for Nokia's Continuing operations. This data has been derived from our consolidated financial statements, which are included in this Annual Report on Form 20-F.

	<b>2014</b>	2013	
	<b>EURm</b>	EURm	<b>Change</b>
<i>Net sales constant currency</i>			3%
<b>Net sales</b>	<b>12 732</b>	12 709	0%
Nokia Networks	<b>11 198</b>	11 282	(1)%
HERE	<b>970</b>	914	6%
Nokia Technologies	<b>578</b>	529	9%
<b>Gross margin</b>	<b>44.3%</b>	42.1%	220bps
Impairment of goodwill	<b>(1 209)</b>		
<b>Operating profit</b>	<b>170</b>	519	(67)%
Nokia Networks	<b>1 210</b>	420	188%
HERE	<b>(1 241)</b>	(154)	
Nokia Technologies	<b>343</b>	310	11%
Group Common Functions	<b>(142)</b>	(57)	149%
<b>Operating margin</b>	<b>1.3%</b>	4.1%	(280)bps
Financial income/(expenses), net	<b>(395)</b>	(280)	41%
Income tax benefit/(expense)	<b>1 408</b>	(202)	
Profit	<b>1 171</b>	41	
Earnings per share ( EPS ), EUR diluted	<b>0.30</b>	0.05	
<b>Average number of employees</b>			
Nokia Networks	<b>50 680</b>	52 564	(4)%
HERE	<b>6 067</b>	5 897	3%
Nokia Technologies and Group Common Functions	<b>819</b>	872	(6)%
<b>Total</b>	<b>57 566</b>	59 333	(3)%
<b>Net sales by region</b>			
Europe	<b>3 886</b>	3 940	(1)%
Middle East & Africa	<b>1 100</b>	1 169	(6)%

Greater China	<b>1 410</b>	1 201	17%
Asia-Pacific	<b>3 364</b>	3 428	(2)%
North America	<b>1 919</b>	1 656	16%
Latin America	<b>1 053</b>	1 315	(20)%

### **Organizational structure and reportable segments**

We have three businesses and four operating and reportable segments for financial reporting purposes. These operating and reportable segments are Mobile Broadband and Global Services within Nokia Networks, HERE, and Nokia Technologies.

Group Common Functions consist of Group level functions that support our three businesses.

As a result of the Sale of the D&S Business, we report certain separate information for Discontinued operations.

Beginning in the third quarter 2013, Nokia has reported financial information for the two operating and reportable segments within Nokia Networks: Mobile Broadband and Global Services. As of the fourth quarter

2013, the Devices & Services business has been reported under Discontinued operations. To reflect these changes historical results for past periods have been regrouped for comparative purposes.

For the breakdown of our net sales and other operating results by category of activity and geographical location, refer to Operating and financial review and prospects Results of operations and Note 2, Segment information, of our consolidated financial statements included in this annual report on Form 20-F.

### **Continuing operations**

Our three businesses: Nokia Networks, HERE, and Nokia Technologies (jointly, Continuing operations ) are presented from page 16 onwards.

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Overview

**Net sales ( m)**

**Net cash ( m)**

**Net sales 2014**

12.7bn

**Operating profit 2014**

170m

**Diluted EPS 2014**

0.30

**Net cash at December 31, 2014**

5bn

**Diluted EPS ( )**

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Letter from the President and CEO

The year 2014 was a remarkable turning point for Nokia – käännekohta, as the Finns would say, in the fullest sense of the term.

We moved from a position of weakness to one of strength; from losses to profits; from cash burn to cash generation; from rapidly narrowing options to a world where our future is bright and our challenge is not the lack of exciting opportunities, but rather choosing from among them.

In the first half of 2014, completing the sale of substantially all of our Devices & Services business to Microsoft was the primary focus, and this was done in April. In an ideal world, the Devices & Services business would have had a different fate, but we lost ground to other players who disrupted the sector. Given this, we chose to sell the Devices & Services business to Microsoft, a transaction that made particular sense in light of our earlier acquisition of Siemens share of what was then Nokia Siemens Networks.

These two transactions were central to the creation of the strong Nokia of today, a company with three powerful businesses, each a leader in their respective segments. Nokia Networks holds leading positions in most segments where it competes, including 4G; HERE is by far the strongest player in mapping services for the automotive industry; and Nokia Technologies continues to build and license one of the strongest and broadest patent portfolios in our industries.

Our full-year financial results are a testament to the potential of the new Nokia. For 2014, our diluted EPS grew sixfold versus 2013 to 0.30 euro cents; net sales of EUR 12.7 billion were roughly flat and our net cash position of EUR 5.0 billion remained very healthy despite returning some EUR 1.8 billion to shareholders. Momentum gathered in the second half of the year in particular, with all three businesses returning to growth.

Profitability was strong at Nokia Networks despite the heavy R&D investments necessary to build a product and services portfolio that now may very well be the most competitive in the history of the company. The power of that portfolio is reflected in the deals we won in 2014 with customers such as Bharti Airtel, China Mobile, T-Mobile and Vodafone. Our relentless focus on efficiency delivered hundreds of millions of euros in savings, some of which we reinvested in future-oriented innovation as we move to capture opportunities in LTE, our unique small cells offering and the transition to virtualization and the Telco Cloud.

0.30

Diluted EPS for Continuing operations in 2014

1.8bn

Returned to shareholders in 2014

5bn

Net cash on December 31, 2014

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### Business overview

HERE returned to growth in the second half of the year. In October, we announced we would refocus the business strategy on automotive, where momentum is excellent; on enterprise, which is small but growing fast; and on location content for mobile device vendors and internet players. As part of that shift, we deprioritized monetizing our direct-to-consumer business, but will still deploy apps and other consumer offerings to support our priority areas. In fact, HERE's Android app has been downloaded extensively and reviews have been very positive. We are also improving HERE's operational efficiency, drawing on best practices from across the company.

Nokia Technologies took steps to monetize its remarkable patent portfolio, closing new licensing deals in 2014 with both existing and new customers, many of which are from outside the mobile industry. These deals included a settlement with HTC in February 2014 and the closing of a license agreement with Microsoft in April 2014. We also launched our first brand-licensed product, the Nokia N1 Android tablet. In 2014, we accelerated investments in Nokia Technologies to ensure we have the pipeline of innovation and business infrastructure needed for future success.

Just as important as what we delivered in the year is how we are positioned for the future. We refreshed the strategies for each of our three businesses; put in place the Nokia Business System to help optimize our investments, manage performance and develop our talent and future leaders; and honed our portfolio management approach to allocate resources based on their value creation potential. With these actions, I believe that we are well positioned for future value creation.

While I am pleased with the above achievements, what I am most proud of is our work to redefine the company's values and outline the position to which we aspire.

Let me start with our values: respect, achievement, renewal and challenge. These four simple words feel natural to who we are at Nokia, and can inspire us for the future. They can provide a foundation for making decisions in the absence of perfect information, and as a guide for behavior, for decision-making, for action. Employees have responded to the values with enthusiasm, and already they are part of the "glue" that brings the new Nokia together.

Then, our position in the world. As we look to the future, our three businesses are focused on a technological shift that we believe will be as profound as the creation of the internet itself. We are entering a hyper-connected world where almost all people and tens of billions of devices are all linked together in extraordinary ways; ways that can unleash human potential and well-being like never before. That is why, at Nokia, we are focused on the human possibilities of technology; on technology grounded in real human needs that is truly in the service of people.

In 2015, Nokia will celebrate its 150-year anniversary, a longevity that few other companies can match. It is also the 150th anniversary of the birth of Finland's national composer, Jean Sibelius, who once said: "Never write an unnecessary note. Every note must live." That fits well with our belief at Nokia. Our ambitions are big and we are committed to building on the warmth and passion that continue to live on for our brand and our company. But we are tempered by pragmatism and a belief in getting the maximum benefit for our shareholders from every euro that we spend.

That is our challenge as a company, and my challenge as its President and Chief Executive Officer. It was a great honor to be appointed Nokia President and CEO in 2014 after an almost 20-year career with the company. My commitment to all of you is to do everything that I can to lead Nokia to future success in the right way: with humility, a commitment to high ethical standards, and a deep belief in the power of our values and the diversity of the world in

which we live.

**Rajeev Suri**

President and CEO

**Nokia's 150-year anniversary**

As we celebrate Nokia's 150th anniversary, our path has been one of adapting to shifts in markets and technologies. It has taken us from one paper mill, through participation in many sectors, to our strategic decision to focus on telecommunications. This heritage of change and innovation will continue to shape our future.

Read more on page 120.

...what I am most proud of is our work to redefine the company's values and outline the position to which we aspire.



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Our place in a changing world

We invest in technologies important in a world where billions of devices are connected, with the vision to expand the human possibilities of technology.

The world is on the edge of a tipping point in technology; a tipping point that will have an impact as profound as the creation of the internet itself.

Today, most humans are connected. Now, we are quickly entering a totally new phase; a phase that is all about connecting things in addition to people.

By 2025, we believe there will be more than 50 billion connected things in the form of devices, modules and sensors. In time, all these connected things will come together in extraordinary ways. Software will be the glue, analytics and intelligence will bring meaning, and automated action will bring simplicity and efficiency.

The human benefits have the potential to be extraordinary:

- significantly fewer fatalities and injuries as well as sharply reduced emissions through intelligent cars and, ultimately, fully autonomous driving;
- better use of scarce resources through precision agriculture and improved water management;
- more effective health-care as technology enables increased, flexible opportunities for patients to engage with clinicians, take steps to prevent conditions from becoming acute, and better self-manage their care;
- new levels of business efficiency from pharmaceuticals, power distribution, fleet management and beyond; and
- more leisure time as technology automates the many little things which consume time and effort in our daily lives.

### **Long-term leadership targeted in three key areas**

We believe that over the next ten years, billions of connected devices will converge into intelligent and programmable systems that will have the potential to improve lives in a vast number of areas including transportation and resource consumption, learning and work, health and wellness, and many more.

We believe we have a powerful role to play in this increasingly connected world. We see ourselves as a technology leader, opening and creating possibilities for our customers, partners and consumers. Modern-day Nokia's focus is, and always has been, on connecting people. Thus, we aim to expand the human possibilities of technology. The opportunities are significant not just for us, but for the world at large.

This new world of technology will require:

• connectivity capable of handling massive numbers of devices and exponential increases in data traffic;

• location services that seamlessly bridge between the real and virtual worlds; and

• innovation across a number of technology areas including sensing, radio and low-power operation. Nokia's vision is to be a leader over the long term in these three areas.

We believe that over the next ten years, billions of connected devices will converge into intelligent and programmable systems that will have the potential to improve lives in a vast number of areas.

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Business overview

**This new world of technology will require:**

Connectivity

capable of handling massive numbers of devices and exponential increases in data traffic;

Location services

that seamlessly bridge between the real and virtual worlds; and

Innovation

across a number of technology areas including sensing, radio and low-power operation.

We believe that we have a strong financial position and the capacity to continue to make the necessary investments to remain an innovation leader in the industries in which our three businesses operate.

The Sale of the D&S Business in 2014 has provided us with a solid basis for future investment as it also significantly strengthened our financial position, thus supporting our target of re-establishing our investment grade credit rating.

In this annual report on Form 20-F, we describe the Nokia business as it is today, including our three continuing businesses, but also provide, under Business overview discontinued operations, information about the Devices & Services business, which was part of the Nokia Group until its sale on April 25, 2014.

**The human benefits of connecting things**

More leisure time as technology automates the many little things which consume time and effort in our daily lives.

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Nokia's strategy

Our strategy is to develop our three businesses, Nokia Networks, HERE and Nokia Technologies, in order to realize our vision of becoming a technology leader in the Programmable World and, in turn, to create long-term shareholder value.

Our aim, which builds on our three businesses, is to optimize our business structure to enable each one to efficiently meet its strategic goals. Where financially prudent, we will pursue shared opportunities between our businesses, but not at the expense of focus and discipline in each.

We target long-term shareholder value creation by focusing on our three business areas:

**Nokia Networks**

Our Nokia Networks business will continue to invest in innovative products and services needed by our customers to manage the increase in wireless data traffic, which we expect will grow by approximately 40% annually through to 2025. Our future investments are focused on further strengthening our position in mobile broadband radio networks through investments in 5G, small cells and radio cloud; becoming the leading network implementation vendor and growing professional services; becoming a domain aggregator in Telco Cloud and expanding our business through Software Defined Networking ( SDN ) and security solutions; and targeting new opportunities in Internet of Things and data analytics.

90+

Of the world's 100 largest operators are served by Nokia Networks

13 million

Cars sold with HERE maps on board in 2014

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Business overview

### **HERE**

Our HERE business will continue to invest in our location cloud with the aim of making it the leading source of location intelligence and the best experience across many different operating systems, platforms and screens. We aim to increase our focus on our leading automotive technology business and our small, but fast-growing, enterprise operations. We will remain connected to the innovation of the consumer ecosystem through work with mobile device vendors such as Samsung and internet players such as Microsoft.

Given our focus in these areas, we have de-prioritized our efforts in the direct-to-consumer field. We also aim to strengthen the operational effectiveness of HERE to ensure we obtain maximum return on our significant R&D investments and improve long-term profitability.

### **Nokia Technologies**

Our Nokia Technologies business aims to bolster the further development of our industry-leading innovation portfolio by:

- expanding our successful patent licensing program;
- helping other companies and organizations benefit from our innovations through technology licensing;
- leveraging the power of the Nokia brand and the interest of companies in licensing it, beginning with the launch of the Nokia N1 Android tablet; and
- product and service incubation, where we will prudently invest in new technologies for use in potential future products and services.

### **Nokia Security Center**

Nokia Networks opened the Nokia Security Center in Berlin, Germany in December 2014 a hub of expertise focused on strengthening telecommunications security. The center provides a platform for co-operating with mobile network operators, partners, governments and academic institutes to develop and share security know-how and expertise.

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### Operational governance and leadership

Nokia has a simple and clear operational governance model, designed to facilitate innovation and growth.

#### **Strong leadership team**

Nokia has a strong and experienced leadership team that brings diverse experience from telecommunications and technology, finance, sales and operations and many other areas. Most have been essential to the recent transformation of Nokia and turnaround of Nokia Networks business, and all have been proven at Nokia or in prior leadership roles.

The Group Leadership Team is responsible for the operative management of the company. Other key executives include those responsible for Nokia Networks sales organization and reportable segments as well as other Group executives.

#### **Members of the Nokia Group Leadership Team**

##### **Rajeev Suri**

**b.1967**

President and Chief Executive Officer of Nokia Corporation

With more than 25 years of international experience, Rajeev is a leader with a passion for creating value, generating growth, and delivering technologies that have a positive impact on people's lives. He joined Nokia in 1995 and has held numerous executive roles in the company. As CEO of what is now Nokia's Networks business, Rajeev led a complete turnaround of the company's performance, resulting in a significant increase in shareholder value. Rajeev lives in Helsinki, Finland.

##### **Timo Ihamuotila**

**b.1966**

Executive Vice President and Group Chief Financial Officer

Timo has deep roots in Nokia, holding various international roles in the company since 1993, and he also had a three year banking stint outside the company during the late 1990s. Timo's responsibilities in Nokia have ranged from sales to business unit leadership, and from risk management to treasury and corporate finance. He is firm believer in a corporate culture based on strong values and vision.

##### **Samih Elhage**

**b.1961**

Executive Vice President and Chief Financial and Operating Officer of Nokia Networks

Samih has 25 years of experience in the telecommunications industry, with a successful track record in transforming complex businesses by creating new operating models, translating into stronger financial performance and sustainable value creation. He joined NSN in 2012 as Chief Operating Officer, in 2013 adding the role of Chief Financial Officer to his responsibilities. Samih serves on both the Nokia Group Leadership Team and the Nokia Networks Leadership Team.

**Sean Fernback**

**b.1963**

President, HERE

Since training as an engineer 25 years ago, Sean has combined his entrepreneurial spirit with his passion for technology. He joined HERE in early 2014, leading the team responsible for smartphone app development and providing location services to the likes of Amazon, Microsoft and Samsung. He became President in November 2014. Before joining HERE, Sean held senior positions at TomTom, TV Compass, Boardbug and Pogo, among others.

**Ramzi Haidamus**

**b. 1964**

President, Nokia Technologies

Ramzi is a technology-licensing expert with proven business skills and a strong innovation background. As president of Nokia Technologies, he is continuing Nokia's decades-long track record of R&D leadership and pioneering spirit. Before joining Nokia, he spent 17 years helping Dolby Laboratories grow into a world-class licensing company.

For the full biographies of the Group Leadership Team, see pages 102 and 103.

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Business overview

### **Nokia Networks Business Leaders**

#### **Ashish Chowdhary**

**b.1965**

Executive Vice President and Chief Business Officer, Nokia Networks

Ashish has nearly 25 years of international experience in the enterprise and telecom sectors and has a track record of delivering consistently strong results. Ashish has led various regional and global organizations before starting his present assignment in January 2011 as Head of Customer Operations in Asia, Middle East and Africa market. He has been a member of the Nokia Networks leadership team since 2009.

#### **Igor Leprince**

**b.1971**

Executive Vice President, Global Services, Nokia Networks

Igor has over 18 years of experience in the telecommunications industry. He stepped to Global Services in 2014 after turning the Middle East & Africa region to profitable growth and heading the Care and Network Planning & Optimization business lines. Prior to joining the company in 2007, Igor held various management roles for telecom operators and services companies in several countries.

#### **Marc Rouanne**

**b.1963**

Executive Vice President, Mobile Broadband, Nokia Networks

Marc has over 20 years of international management experience in the telecommunications industry. Since joining Nokia in 2008, he has turned the company into a leader in LTE and a significant global software developer. Marc has extensive experience in executive leadership bringing advanced mobile technologies to mass market.

### **Other Group Executives**

#### **Hans-Jürgen Bill**

**b.1960**

Executive Vice President, Human Resources

Hans-Jürgen has 20 years of experience in the telecommunications industry. Prior to NSN, he held a range of diverse roles at Siemens, which he joined in 1983. When NSN was formed in 2007, Hans-Jürgen became Head of West South



Europe region. He assumed the role of Head of Human Resources for NSN in 2009.

## **Barry French**

### **b.1963**

Executive Vice President, Marketing and Corporate Affairs

Barry joined Nokia in 2006 and was instrumental in the creation and later turnaround of Nokia's Networks business. Previous experience includes leadership positions in technology, restructuring and politics. He is a resident of London but is present regularly at the company's headquarters in Finland.

## **Maria Varsellona**

### **b.1970**

Executive Vice President and Chief Legal Officer Maria joined NSN in 2013 from Tetra Pak, where she was the Group General Counsel. Previously, Maria held senior legal positions in GE Oil & Gas for many years. As an admitted lawyer in Italy and England, Maria started her career in private practice, and she also lectured international contract law at the University of Florence, Italy.

## **Our values**

At Nokia, we want to be proud of what we achieve, but also how we achieve it.

Our values guide the way we do business:

### **Respect**

means how we treat each other; it is something we work hard to earn from those around us.

### **Achievement**

is about working together to deliver superior results, to bring great products and services to our customers, and to win in the marketplace.

### **Renewal**

covers how we develop ourselves, how we grow our business, and how we strive to create the compelling new products and services that disrupt the market.

### **Challenge**

Means we will never be complacent, always pushing for better performance, and perpetually questioning the status quo inside the company and out.

With the right behaviors, these four simple values can push us to do the right things in the right way. We can challenge and do so with respect; we can drive for near-term achievement and renew at the same time. Doing so is not always easy, but it can be done—and those people who do so become great leaders, those companies that do so become great companies.



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**Technology that thinks ahead**

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Business overview

**Nokia Centralized RAN**

Major sporting events and concerts attract thousands of fans, many of them using smartphones to record and share their experiences over social networks. At the packed Hartwall Arena in Helsinki, Nokia's Centralized RAN solution delivered data uploads significantly faster than using traditional radio solutions available in the market, while cutting smartphone power consumption by one third.

2.5 times faster

Data uploads

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Nokia Networks

The development of ways for machines to communicate, interpret data and act all without human intervention enables people to address some of our biggest global challenges.

From caring for aging populations to providing clean water and safe energy to reducing greenhouse gas, the opportunities opened by the Programmable World are seemingly endless.

Nokia Networks will play a leading part in developing that world. It will provide the networks that carry data traffic from machine to machine to people and it will provide companies and individuals with the intelligence to interpret and use that data.

Through its two segments Mobile Broadband and Global Services it is the trusted partner of operators that, between them, have close to five billion subscribers. Nokia Networks is at the leading edge of technology. At the end of 2014 it had 162 LTE customers and an installed base of 200 WCDMA/HSPA customers and 300 GSM customers. Serving 170 customers, Nokia Networks Customer Experience Management (CEM) offerings are well established and it provides Operations Support Systems to the world's top ten operators.

Its Global Services teams have so far delivered 400 multi-vendor projects; they put a new site on air every 100 seconds and manage networks serving 550 million subscribers. Nokia Networks takes its customers' investments seriously and its highly efficient Global Delivery Centers now manage close to one billion network elements.

A world of opportunities also contains threats. Nokia Networks' focus on security aims to protect the connected world from security breaches and, as a company, it pays great attention to keeping its employees, suppliers and partners safe.

For the future, Nokia Networks will expand its reach, while defending its strong position in its existing markets. As the realms of telecommunications and IT converge, it will continue to support, consult and serve its customers and to help them develop the human possibilities of technology.

• Over 90 of the world's largest 100 mobile operators served

• Nokia Networks' customers have almost five billion subscriptions

• Supplier to 15 of the world's top 20 LTE operators

• An early leader in virtualization and cloud technologies' trials and pre-commercial live projects with over 60 customers by the end of 2014

• 550 million subscribers in over 100 operator networks and close to one billion network elements managed by its Global Delivery Centers

54 586 employees at December 31, 2014  
**Nokia Networks**

**Mobile Broadband**

**Global Services**

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Business overview

### **Market overview**

Through its broad portfolio of products and services, Nokia Networks addresses a market described as mobile infrastructure and related services. Demand for Nokia Networks portfolio is driven by the rapidly growing requirement for greater bandwidth and capacity in mobile networks globally. Bandwidth requirements are rapidly expanding as data-rich websites, applications and video usage become more common. In addition, the use of devices optimized for rich content, including smartphones and tablets, is on the increase.

### **Business overview**

Nokia Networks portfolio ranges from the hardware components of networks used by mobile operators, such as base stations, to software solutions that support mobile networks, such as the core software that underpins the operations of an operator. Additionally, Nokia Networks provides the services to plan, implement, run and upgrade operators networks.

Nokia Networks is estimated to be the third-largest company in its target market of mobile infrastructure and related services. Nokia Networks has a strong position in all generations of radio network technologies (2G, 3G and 4G) and the underlying core networks software. In 3G, Nokia Networks serves more operators than any of its rivals, with more than one billion subscribers connected through its 3G networks. In LTE, Nokia Networks had 162 commercial contracts at the end of 2014, and it is a key LTE radio supplier to 15 of the world's top 20 operators. Nokia Networks is also estimated to be the world's third largest telecommunications services vendor by revenue, managing 550 million subscribers in more than 100 operator networks and close to one billion network elements through its Global Delivery Centers.

Mobile consumers and businesses expect an increase in technological capability with little (if any) increase in price. As a result, Nokia Networks overall market for mobile broadband and related services is expected to be flattish in the next few years. Nokia Networks is investing in new market opportunities such as small cells, Telco Cloud, data analytics, security and Internet of Things. These will support Nokia Networks current and new customers as they themselves look for new sources of revenue from the so-called quad-play (fixed and mobile access, internet and television) and seek efficiency improvements from the ongoing transition to cloud computing.

More than 600 customers globally with a total of almost five billion subscriptions use Nokia Networks equipment and services, among them most of the world's largest mobile operators, including Bharti Airtel, China Mobile, Deutsche Telekom, NTT DoCoMo, SoftBank, Sprint, Telefónica, Verizon and Vodafone.

Nokia Networks was formerly known as the NSN business, which began operations as Nokia Siemens Networks on April 1, 2007, following a merger of the networks business of Nokia and the carrier-related operations of Siemens AG for fixed and mobile networks. Since August 7, 2013, the business has been wholly owned by the Nokia Corporation and is now operating under the Nokia brand.

Nokia Networks net sales totaled EUR 11.2 billion, and total assets equaled EUR 12.8 billion for 2014.

### **Internet of Things will impact networks**

Nokia is demonstrating two emerging mobile technologies, 5G and LTE-M, that will help to make networks not only faster but more reliable, resilient and energy efficient.

Demand for Nokia Network's portfolio is driven by the rapidly growing requirement for greater bandwidth and capacity in mobile networks globally.



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Nokia Networks continued

### **Strategy**

Nokia Networks industry is characterized by rapid technological development, and we see the following as the key trends within the industry.

- ┆ The number of connected devices is likely to increase significantly by 2025. We forecast that there will be over seven billion connected people and more importantly over 50 billion connected things in the world by 2025. We expect analytics to play a pivotal role in bringing meaning and value to this programmable world.
- ┆ We expect the exponential growth in mobile data traffic to continue. We forecast that global mobile data traffic will grow by 40% annually through 2025. Each mobile broadband user will use multiple gigabytes of data daily. Carrier aggregation technology will be key in enabling the massive traffic in ultra-dense LTE networks.
- ┆ High performance, quality and reliability in networks are likely to become even more important. As networks carry ever more data traffic, their high performance will be critical, in addition to their quality and reliability.
- ┆ The transition of network functionalities to the cloud is likely to enable faster deployment of networks and reduction of costs, and help Nokia Networks customers provide a better experience to their own customers.
- ┆ Automation of services is likely to increase across every stage of network lifecycle for high service quality and efficiency.
- ┆ Partnering in the complex ecosystem is likely to become increasingly important. With the complexity of networks increasing, partnering and cooperation between vendors will be required in the merging telecommunications and IT industries.

Nokia Networks, to respond to these trends and capitalize on its strengths, has four focus areas in its strategy:

#### **1. Accelerating leadership in radio**

Nokia Networks will remain focused on the radio business, aiming to grow its market share further in LTE and LTE-Advanced and to gain leadership in 5G, small cells and radio cloud, while maintaining its overall market position. Nokia Networks is constantly developing its portfolio to offer all the technology elements in a base station site, whether through its own products or partnering, including items such as antennas, backhaul and fronthaul. Nokia Networks will also offer integrated small cells and Wi-Fi technologies to handle the large proportion of mobile data traffic that is generated by users indoors. Another example of how Nokia Networks is developing its portfolio is the use of its LTE capabilities to target new market areas, such as LTE-based public safety solutions.

## **2. Growing professional services**

Nokia Networks aims to grow its services business overall to become the leading network implementation vendor with the highest quality and to become the best in the care business. Nokia Networks is also taking steps to increase its proportion of professional services revenue: by growing areas such as network planning and optimization for heterogeneous networks; leveraging its 3D geo-location capabilities; and growing its systems integration business with carrier-grade services to enable Telco Cloud, Internet of Things, analytics and security. Additionally, Nokia Networks aims to grow its managed services business through a portfolio in predictive operations, smart learning and software as a service. Automation and remote delivery will continue to be emphasized as part of an efficient service delivery model.

## **3. Winning in technology transition to the Telco Cloud**

The third focus area of Nokia Networks' strategy is based on opportunities arising from the technology transition to Telco Cloud. Nokia Networks is in a good position to benefit from its strength in Network Functions Virtualization (NFV), but its ambitions are also to become a domain aggregator in Telco Cloud and expand its business through Software Defined Networking. Nokia Networks also plans to expand into network and service orchestration and management, which will extend its capabilities to allow for automated arrangement, coordination and management of all network elements. To round out its end-to-end Telco Cloud offering, Nokia Networks has started to build a strong security portfolio. We believe that the transition to the cloud will give rise to next-generation security threats and new regulation, and we want to ensure a secure transformation for our customers.

### **Creating a network for the future**

The Telco Cloud proof of concept with Nokia Networks is a significant step forward in Orange's strategy to leverage the power of Telco Cloud and NFV, targeting a more agile service launch as well as self-healing networks and automated operations for networks.

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### **4. Targeting the opportunities in Internet of Things and data analytics**

Nokia Networks is also expanding its analytics capability building on its Customer Experience Management ( CEM ) portfolio and entering the Internet of Things market. Its CEM products address one of the main problems for our customers: how to improve customer satisfaction. We can take advantage of the predictive analytics suite of Medio, which was acquired by HERE in 2014, to help operators generate incremental revenue. This capability will enable Nokia Networks to help operators to perform end-user analytics by combining network insight with location intelligence and other types of consumer data. Additionally, Nokia Networks continues to ensure that operators network products and services, as well as their network infrastructure, are designed to meet the requirements of the Internet of Things.

Underlying these four focus areas, Nokia Networks has four strategic enablers:

#### **1. Quality**

Quality continues to be an extremely important strategic enabler and a competitive differentiator for Nokia Networks, and it is taking steps to further strengthen its quality culture by targeting world-class, end-to-end quality management, flawless service execution and highest software quality. This all contributes towards a better customer experience.

#### **2. Innovation**

Innovation will continue to be central to Nokia Networks strategy as it drives technology disruptions in areas that are essential to operators business, such as Telco Cloud transformation, cognitive networks and 5G. Nokia Networks will also continue to dedicate resources to co-innovation with its customers, aiming to create even more added-value for them.

Nokia Networks invested EUR 1.8 billion in R&D in 2014, making it one of the largest R&D investors in the telecommunications industry. The efforts of its R&D teams have resulted in technology breakthroughs and industry awards.

For example, Nokia Flexi Multiradio base stations which have been shipped to approximately 300 customers since their first deliveries in 2008 undergo continuous development. New versions of the product have been continuously launched, such as the range of award-winning Flexi Zone LTE microcell and picocell base stations, which was introduced in November 2013 and enhanced throughout 2014.

Another example is Nokia Networks cloud-ready Operations Support Systems where during 2014, the number of customers using its virtualized NetAct solution for network management exceeded 200. To support the transition to Telco Cloud, innovations such as Cloud Application Manager and Cloud Network Director are now enabling the management of networks based on Network Functions Virtualization and Software Defined Networking.

## **LTE Broadcast**

Working with a range of partners, Nokia Networks is pioneering LTE Broadcast, new technology that delivers the same signal to many users at the same time over existing mobile networks, instead of streaming video content individually to each user. This will allow subscribers to watch TV on their devices without eating into their data plans.

Innovation will continue to be central to Nokia Networks' strategy as it drives technology disruptions in areas that are essential to operators' business.

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Nokia Networks continued

### **3. Partnering**

Nokia Networks will continue to focus on increasing its partnering activities, and in 2014 founded a new partnering unit, part of Mobile Broadband, devoted to that goal. We believe that this will enable Nokia Networks to extend its addressable market beyond its own portfolio through the market-leading products and services of our partners such as IP routers, data center equipment, software stacks and systems integration solutions. Nokia Networks also aims to enable the plug-in of third-party hardware and software elements, opening up previously closed programming interfaces to trusted partners and adjusting its own portfolio accordingly, which we believe will help Nokia Networks reach new customers and address new markets.

### **4. Automation**

Nokia Networks aims to use automation to further improve its efficiency, using its analytics capabilities to enable fully automated service deployment, maintenance and network optimization. It also aims to use automation in an effort to drive operational efficiencies, covering all its businesses, R&D, financial systems and business forecasting.

### **Organization**

Nokia Networks has two segments: Mobile Broadband and Global Services.

#### **The Mobile Broadband segment**

Mobile Broadband provides its customers with flexible network solutions for mobile voice and data services through its Radio and Core clusters. The Radio cluster covers all technology generations GSM, CDMA, WCDMA, and LTE and is investing in research in LTE-Advanced and 5G.

The Core cluster has a comprehensive mobile switching portfolio as well as voice and packet core solutions. The Core portfolio is based on Nokia Networks' cloud-ready software and can scale for the challenges of data growth and Internet of Things. This provides customers with a high level of capacity, agility and performance to meet the increasing demands that subscribers are placing on networks.

The Core cluster has expertise in Customer Experience Management, virtualization and software-rich solutions. These help Nokia Networks support its customers in dealing with changing technology trends. For example, security is currently a pressing topic for operators and Nokia Networks recently opened its mobile broadband security center in Berlin, Germany. The center is a hub of leading expertise focused on ensuring robust telco security and bringing together network operators, partners, governments and academic institutions to develop and share network security expertise.

Other major trends addressed by the Mobile Broadband segment include cloud computing, analytics, big data and multimedia content. The new partnering unit, which is part of Mobile Broadband, exists to help Nokia Networks achieve its goals through partnering with recognized market leaders—the best of the up-and-coming technology innovators and companies that have established reputations as leaders in their fields. Through these activities, we believe that Nokia Networks will be able to continue to extend its offerings to its customers.

## **The Global Services segment**

Through our Global Services segment, we aim to provide mobile operators with the solutions they need to create and maintain effective networks.

Global Services comprises five business lines. The Network Implementation business line provides customers with the services they need to build, expand or modernize a communications network. The Care business line undertakes software and hardware maintenance and provides training to help our customers maximize their networks. Within the Managed Services business line, Nokia Networks offers services such as network operations and service operations, which help its customers manage service lifecycles efficiently and enhance their subscribers' experience (for example, by using analytics to improve their predictive services).

Within the Network Planning and Optimization business line, we offer solutions to improve the performance, consistency and reliability of our customers' networks and services. Finally, Global Services' Systems Integration capabilities ensure that all the elements of a mobile broadband solution, including new and mature technologies, are brought together seamlessly.

Within Global Services, Nokia Networks has two Global Delivery Centers, complemented by five Global Service Delivery hubs, bringing together global and local services experts as well as centralized tools and architecture. These facilities, which deliver a growing proportion of its services, provide efficiency for customers while at the same time allowing operators to benefit from access to world-class skills, available as part of Nokia Networks' global presence.

## **Sales and marketing**

Nokia Networks' sales and business teams are active in approximately 120 countries. They ensure that Nokia Networks is close to its customers, both physically and in terms of understanding the local markets, and help it to build and maintain its customer relationships.

In 2014, Nokia Networks grouped its customer operations into three geographical markets: Asia, Middle East and Africa; Europe and Latin America; and North America. These were further divided into regions containing sales, business and delivery teams. On April 1, 2015, Nokia Networks aims to implement a new structure in its sales teams, bringing the three markets together into one global sales organization with the seven markets presented below. This new structure is targeted at allowing Nokia Networks to gain additional speed and simplicity in dealing with customer requirements while preserving existing customer relationships.

- i Asia-Pacific Japan spans a varied geographical scope, ranging from advanced telecommunications markets such as Japan and the Republic of Korea to developing markets including Bangladesh, Myanmar and Vietnam. Nokia Networks works with leading operators in the market, including KDDI, KT, NTT DoCoMo, SKT, SoftBank and Telkomsel.

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Business overview

- j In Europe, Nokia Networks is engaged with all the major operators, including Deutsche Telekom, MegaFon, MTS Sistema, Orange, TeliaSonera and Vodafone Group, serving hundreds of millions of customers. Nokia Networks has extensive R&D expertise in Europe, and some of its largest technology centers, which are working on future mobile broadband technologies, are based in this market. One of Nokia Networks Global Delivery Centers is based in Portugal.
  
- j In Greater China, Nokia Networks counts the major operators China Mobile, China Unicom and China Telecom as our customers, among others. The TD-LTE standard has proven particularly important to Chinese operators, resulting in Nokia Networks being honoured with the People’s Republic of China Friendship Award in 2014.
- j In India, Nokia Networks is a strong player, with operator customers such as Bharti Airtel, Idea Cellular and Vodafone. In fact, we count ten Indian telecom operators, both public and private, among our customers in the market, along with the Indian defense administration and Indian railways, including the Kolkata Metro Railway. We have several sites in India, including a Global Delivery Center in Noida.
  
- j In Latin America, Nokia Networks works with all major operators, including América Móvil, Avantel, Nuevatel, Oi, Telefónica and TIM.
  
- j Nokia Networks has built a position of considerable strength in Middle East and Africa, with leading operators such as Mobily, Etisalat, Ooredoo, STC and Zain among its customers in the market.
  
- j In North America, eight of the top ten mobile operators are Nokia Networks’ customers, as well as local operators, major cable companies and government entities. The acquisition of SAC Wireless, a provider of infrastructure and network deployment solutions, in August 2014 further built on our existing network implementation service capabilities. North America is also home to Nokia Networks’ flagship mobile broadband testing and development Innovation Lab, located in Silicon Valley in the United States.

**Nokia Networks’ net sales by geographic area 2014 ( m)**

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Nokia Networks continued

**Production of infrastructure equipment and products**

Nokia Networks Global Operations team handles the supply chain management of all its hardware, software and original equipment manufacturer products. This includes supply planning, manufacturing, distribution, procurement, logistics, supply, network design and delivery capability creation in product programs.

On December 31, 2014, Nokia Networks had six manufacturing facilities globally: four in China (Beijing, Shanghai, Tianjin and Suzhou), one in Finland (Oulu) and one in India (Chennai).

In addition to Nokia Networks strong manufacturing capabilities, it also utilizes third-party suppliers for certain components and sub-assembly for certain products. Examples include company-specific integrated circuits and radio frequency components. Nokia Networks then assembles these components and sub-assemblies into final products and solutions and, for selected products and solutions, its suppliers also deliver goods directly to customers. This system provides Nokia Networks with considerable flexibility in its manufacturing and enables it to meet demands related to cost, availability and customer requirements more easily.

The table below shows the productive capacity per location of major manufacturing facilities for Nokia Networks infrastructure equipment at December 31, 2014.

<b>Country</b>	<b>Location and products<sup>(1)</sup></b>	<b>Productive capacity, Net (m<sup>2</sup>)<sup>(2)</sup></b>
China	Beijing: switching systems and radio controllers	6 749
	Shanghai: base stations, transmission systems	15 954
	Suzhou: base stations	8 968
	Tianjin <sup>(3)</sup> : Wireless base stations, mobile core systems, radio controllers	10 000
Finland	Oulu: base stations	8 364
India	Chennai: base stations, radio controllers and transmission systems	11 962

(1) Nokia Networks considers the production capacity of its manufacturing facilities to be sufficient to meet the requirements of its network infrastructure business. The extent of utilization of its 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.

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

(3) The Tianjin manufacturing facility was sold in January 2015.

**Research and development**



Nokia Networks has 11 Global Technology Centers, each with individual technology and competence specialties. These are located in China, Finland, Germany, Greece, Hungary, India, the Philippines, Poland and the United States.

Nokia Networks organizes its R&D teams in a flat structure, resulting in advantages such as cost effectiveness and speed. Nokia Networks is focused on creating a strong partner ecosystem and makes efforts to ensure the effective management of portfolio for its partners and suppliers and for their products. The Mobile Broadband segment is responsible for most of Nokia Networks' R&D internally.

Nokia Networks has a joint venture company TD Tech Communication Technologies Ltd (TD Tech) for development and manufacturing of TD-SCDMA and LTE technologies and related products in Beijing, Shanghai and Chengdu, China. The company is owned between Nokia Networks (51%) and Huawei Technologies Co. Ltd. (49%), and Nokia has ownership of the system in which the commonly created products are inserted. The joint venture has supported the growth of Nokia's market position in China, and demonstrates that this partnering has been of great mutual benefit for both enterprises. Mutual customization of the most commoditized part of the portfolio allows Nokia Networks to focus on lowering cost while producing a higher value offering.

### **Gaining customer insight**

At the 2014 Nokia Networks CEM Executive Forum, operators learned how implementing CEM results in financial benefits for them. Another lesson was that it is not just about the tools – the right people and processes are also very important. The operators at the forum emphasized that their future CEM requirements are also focused on providing insights into fixed and internet services.

Intellectual property assets are fundamental to Nokia Networks. As an industry leader in the R&D of wireless, broadband and transport technologies, we have a robust patent portfolio.

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### Business overview

As a result of its investments in R&D, Nokia Networks is one of the largest R&D investors in the telecommunications industry, with total R&D expenses amounting to EUR 1.8 billion in 2014. We expect these capabilities to enable Nokia Networks to continue to drive innovation in the dynamic telecommunications sector, where product development constantly needs to improve in speed and efficiency in order to help operators cope with increasing subscriber demands and exponential data traffic growth.

We believe that the geographical diversity of Nokia Networks' R&D network is an important competitive advantage for us. In addition, the ecosystem around each of its R&D sites helps it connect with experts on a global scale, a network that it complements by co-operation with universities and other research facilities.

Nokia Networks further complements its R&D efforts through its Technology & Innovation team, which focuses on developing and prototyping new and futuristic technologies, such as 5G, that are several years from reaching the market. The team is responsible for the technology vision, long-term research, innovation, standardization and intellectual property rights ( IPR ) management of Nokia Networks, and it co-operates with top customers, partners, universities, research institutes and industry bodies globally to drive Nokia Networks' technology and innovation agenda.

### **Patents and licenses**

Intellectual property assets are fundamental to Nokia Networks. As an industry leader in the R&D of wireless, broadband and transport technologies, Nokia Networks has a robust patent portfolio in a broad range of technology areas and we seek to safeguard our investments in technology through appropriate protection. We have generated and maintained an extensive IPR portfolio covering patents, design patents, trade secrets, trademark registrations, and copyrights. Where necessary, we obtain licenses to use standard-essential and other patents in our hardware and software solutions for mobile network infrastructure.

Nokia Networks now owns a large portfolio of almost 4 000 patent families comprising approximately 11 000 individual patents and patent applications across many technologies, some of which were transferred from Nokia and Siemens at the formation of the business as Nokia Siemens Networks in 2007. Its IPR portfolio includes high-quality standard-essential patents ( SEPs ) and patent applications which have been declared to the European Telecommunications Standards Institute and other Standards Developing Organizations as essential to standards including LTE, WCDMA, GSM and other standards. In addition, Nokia Networks holds copyright registrations relating to certain aspects of its products and services.

Nokia Networks receives and pays patent license royalties in the ordinary course of business based on existing agreements with telecommunications vendors. Nokia Networks has a number of patent license agreements in place with other major companies and patent holders, both directly and through Nokia, and these provide it with freedom to operate with limited risk of infringing SEPs owned by others.

### **Competition**

At present, Nokia Networks considers five companies – Alcatel-Lucent, Ericsson, Huawei, Samsung and ZTE – to be its main competitors as major mobile network infrastructure providers. Nokia Networks also competes with IT companies such as Cisco Systems and Oracle.

## **Building a Radio Cloud**

Nokia Radio Cloud is a highly scalable, flexible and efficient architecture for cloud-based networks. It allocates processing capacity from almost anywhere in the network, such as an adjacent cell or a centralized data center, to where it is needed most. By using a network's existing radio access and transport assets more efficiently, extra infrastructure costs can be avoided.

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**Grounded in real life**

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Business overview

**HERE**

**True Cars**

HERE's fleet of True Cars is driving 50 000 km across six continents each week. Why? Using proprietary technology, the cars are collecting information to create an accurate 3D digital representation of the real world. These high-definition maps will be needed to make automated driving a reality.

2 million km

HERE has mapped more than 2 million km in highly-detailed 3D

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HERE

As cartographers, we have long dreamed of creating the perfect map – one that precisely recreates the territory it seeks to represent. But, as many in the field would tell us, at the heart of that endeavor lies a great paradox: the closer to reality a map becomes, the less useful it tends to be.

Maps have been abstractions of reality by necessity: there are limits to how much information the human mind can process. But what if maps are made not just for humans but for machines capable of comprehending vast quantities of information?

As computational cartography continues to advance, maps are taking on new forms. For HERE, the map is becoming a dynamic three-dimensional, highly detailed digital representation of the world, rich in real-time and contextually-relevant information drawn from both real-world and digital sources.

HERE already aggregates data related to parking, gas prices, traffic and weather, among other things, and we see further opportunities in a world where billions of devices, including phones, tablets and cars, are connected. Accordingly, we are investing in technologies and analytics capabilities to ensure HERE’s location cloud can harness the collective power of the data these devices generate to deliver real-time, predictive and relevant information to every individual user. In the future, we also intend to leverage HERE’s location cloud to deliver HD maps and other services to power an entirely new class of driver experiences, starting with highly automated vehicles.

- More than 25 years of experience in cartography
  - 44 countries with live traffic information
  - 2.7 million updates to our maps every day – keeping them fresh, accurate and reliable
  - 80 000 sources of data used to update our map
  - Maps for more than 190 countries
  - Voice guided navigation in more than 50 languages
- 4 out of 5

In-car navigation systems in North America and Europe powered by HERE’s map content

6 257

Employees at December 31, 2014

**HERE**

**Global new embedded navigation licenses**

\*Includes a goodwill impairment charge of EUR 1 209 million in 2014.

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**Market overview**

The market for location services has undergone significant change in recent years. Access to location services has broadened from portable navigation devices ( PNDs ) and those in cars to multiple devices and screens, including smartphones. Location is now a key element of the mobile and web experience, whether to seek live subway departures, check restaurant ratings, share location-tagged images on social networks, or track pending online deliveries.

The industry is also delivering location experiences in a different way. In the past, static maps were often provided on disc or pre-installed on a device, whereas today users are increasingly being delivered content and services over the internet in real time, as a result of cloud-based technologies. Companies in the automotive, enterprise, mobile and broader consumer electronics industries are already making considerable investments in and around location services, and location is and will be a critical element in, for example, the areas of wearable computing, augmented reality, personal activity tracking, connected cars, and automated driving.

**Business overview**

HERE is the leading company in the location intelligence industry, delivering highly precise and up-to-date maps, a location platform, and location experiences across multiple screens and operating systems. Built on more than 25 years of experience in cartography and drawing on more than 80 000 sources of data, HERE offers maps for more than 190 countries, voice guided navigation for 99 countries in more than 50 languages and live traffic information for 44 countries. We believe HERE 's map is the best digital representation of the real world in terms of accuracy, coverage, richness and freshness. HERE 's global team of geographic analysts build and maintain the core map of HERE. HERE also has a fleet of sophisticated data collection vehicles, which help produce maps with centimeter-level precision. Altogether, HERE employs approximately 6 000 people, with its major development sites located in Berlin, Germany and in Chicago, United States.

HERE 's customer base includes many of the world 's leading companies from the automotive, mobile, internet and consumer electronics industries. In the automotive space, HERE is the clear market leader, providing maps for the embedded navigation systems in four out of every five new vehicles sold in North America and Europe. In 2014, this amounted to more than 13 million new vehicle licenses. Our customers can license all or

parts of the HERE offering: map content, HERE 's location platform, or specific location experiences. The platform is device and operating system agnostic and includes functionalities such as routing, traffic and positioning, a digital 3D reference model of the world, the development tools with which customers can create their own experiences on top of our map, and the analytical tools to make sense of location-based data. The flexibility in being able to choose between all or specific parts of HERE 's offering enables HERE to serve a broad range of customers with different business models and needs.

Nokia launched HERE as its brand in 2012, prior to which it was already an established business operating under the Nokia name. The business has developed organically and through acquisitions, the most significant of which were the acquisition of location software provider Gate5 in 2006, digital mapping provider NAVTEQ in 2008, and data capture company earthmine in 2012.



For over 25 years, HERE has been driving fundamental changes to its map. HERE's predecessor NAVTEQ was an early pioneer in digital mapping, and in 2006 Nokia became the first company to launch a mobile phone with in-built GPS. HERE is transforming its map from a static, two-dimensional form akin to a digital version of a paper map and further into a dynamic three-dimensional digital representation of the world, rich in real-time and contextually-relevant information drawn from both real-world and digital sources.

In recent years, amid advances in wireless connectivity and a growing need for ever-more-relevant data, HERE has also been driving a fundamental change to the way it builds and delivers map and location data. Increasingly, HERE's location experiences are powered by its location cloud, which processes and delivers data to smartphones, tablets, in-car navigation systems and other devices over the cloud in real time, reducing the heavy computing needs of the devices.

### **Leading market position**

Many of the world's leading carmakers are including HERE map data in models they are launching in 2015, demonstrating that HERE is well positioned for future developments in motoring.

Location services will be a critical element in, for example, the areas of wearable computing, augmented reality, personal activity tracking, connected cars, and automated driving.

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HERE continued

### **Strategy**

HERE already aggregates data related to parking, gas prices, traffic and weather, among other things, and it sees further opportunities in a world where billions of devices, including phones, tablets and cars, are connected. Accordingly, we are investing in technologies and analytics capabilities to ensure HERE's location cloud can harness the collective power of the data these devices generate to deliver real-time, predictive and relevant information to every individual user. We believe the next generation map has to be fresh, predictive and very rich.

We believe that location is an essential element of the Programmable World, hence HERE is targeting its investments in three areas: 1) Automotive, for location content and technology for smart, connected and automated cars; 2) Enterprise, for location-based analytics for better business decisions; and 3) Consumer, for serving ecosystem players through cloud-based services for personal mobility and location intelligence through seamless experiences across multiple screens.

The automotive and enterprise markets are important growth areas for HERE. In the case of the former, an increasing number of vehicles have connectivity technologies onboard and it is our ambition to connect these vehicles to HERE's location cloud. For example, HERE and BMW are collaborating to develop a suite of location-based services for the connected car and to integrate cars into modern urban transport systems. BMW's Intelligent Drive uses the most sophisticated capabilities of the HERE location cloud to personalize in-vehicle technology, and provide smart recommendations for parking and fuel; enable drivers to share their destination and estimated time of arrival; and enable drivers to get safety alerts for hazards, speed restrictions and traffic.

In the future, we also intend to leverage HERE's location cloud to deliver HD maps and other services that will power an entirely new class of driver experiences, starting with highly automated driving. Industry participants and government bodies are currently seeking to address a range of technological, legislative, regulatory and ethical issues to ensure that highly automated driving can become reality and gain broad market acceptance in the future. Automation on the road requires that vehicles communicate directly with other vehicles as well as indirectly via cloud technologies and roadside infrastructure. Consequently, HERE is advocating for a new international regulatory architecture that would enable companies and organizations to harness these data flows to bring new safety and sustainability benefits to road users. The benefits could be significant considering that the majority of accidents that occur on the road are a result of human error. From an R&D perspective, HERE is focused on addressing key technological requirements of vehicle automation, such as how HD maps can complement a vehicle's on-board sensors to aid with precise vehicle localization. HERE has already participated in a number of automated driving pilots with major automotive companies, including Mercedes-Benz.

With respect to the enterprise market, we aim to leverage HERE's core map, platform and automotive assets to deliver location content and services to a broad range of industries. We believe HERE's precise map data, rich map attribution and deep analytics can be combined to give companies and organizations new insights into their operations.

### **Strengthening with predictive analytics**

In 2014, HERE acquired Medio Systems Inc., a pioneer in the emerging field of real-time predictive analytics, to enable HERE to innovate in contextual mapmaking and deliver on its vision to create maps and location services across screens and operating systems that change according to the situation.

We are investing in technologies to ensure HERE's location cloud can harness the collective power of data from connected devices to deliver real-time, predictive and relevant information to every individual user.

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### Business overview

In addition to opportunities in the automotive and enterprise markets, we invest in and target growth opportunities in the internet and consumer electronic industries. In the latter part of 2014, HERE focused its strategy in this area, de-prioritizing certain direct-to-consumer activities and focused more of resources on its work for customers who are in the consumer markets, such as Microsoft and Samsung. In the direct-to-consumer space, HERE intends to maintain a modest presence through web and mobile applications that showcase its core assets. These applications and the development work behind them are also leveraged to support our work with our automotive and enterprise customers.

### **Sales and marketing**

HERE's core business is licensing content and platform technologies, and today it has agreements with most of the world's leading automotive companies, such as BMW, Continental, Daimler, Nissan, Toyota, Volkswagen and Volvo; leading enterprises such as FedEx, Oracle and SAP; and internet and technology companies including Amazon, Baidu, Microsoft, Samsung and Yahoo.

HERE's map content powers four out of five in-car navigation systems in North America and Europe, and its location platform is used by leading internet companies.

### **Research and development**

HERE's business is R&D-intensive with total R&D expenses amounting to EUR 545 million in 2014. The HERE team is focused on building and enriching its core map, as well as developing the platform and cloud technologies through which HERE can ensure the effective delivery of the map and location services to its customers irrespective of the device they use.

In addition to collecting data with HERE's own fleet of cars, HERE aggregates data from another 80 000 sources, including parking, gas price, traffic, weather and points of interest data. To maintain the freshest maps, HERE compiles, tests and publishes them continuously. From usage, HERE collects billions of data points to update its real-time traffic, routing and search engines.

A primary focus for HERE's longer-term R&D efforts is on the development of software, cloud and data analytical capabilities in preparation for the anticipated emergence of highly automated driving before the end of the decade. HERE's investments are focusing on addressing what it sees as three of the most critical technological challenges: the vehicle's ability to precisely localize itself on the road, what lies ahead of the vehicle, and how can we program vehicles equipped with HERE technology to drive like humans rather than robots, albeit with greater awareness of, and faster responsiveness to, changing road conditions and events.

### **Competition**

HERE, Google Maps and TomTom are the largest suppliers of map data to a broad range of industries. Other participants include Inrix, which, like TomTom and Google, competes with HERE in providing traffic services. In contrast to HERE, which has a licensing model for its map data and platform, Google uses an advertising-based model allowing consumers and businesses to use its map data and related services free of charge. Google, which has leveraged Google Maps as a differentiator for its Android operating system, has ambitions to bring the Android platform into the car through Open Automotive Alliance, a coalition of technology and automotive companies, and is

also exploring automated driving with pilots of self-driving vehicles underway.

To date, in the automotive space, Google has competed with HERE through its brought-in car solutions, offered via smartphones and tablets. HERE competes in the brought-in solution space by offering mapping services via PND vendors such as Garmin, as well as through its own native smartphone and tablet applications. While brought-in solutions have become more pervasive, particularly as smartphone and tablet penetration has grown in recent years, HERE has nevertheless continued to see an increase in the car industry's adoption of embedded navigation solutions, as represented by the proportion of all new cars sold with factory-fitted systems. While content remains important, HERE has been increasing its focus on platform technologies which can power up-to-date and predictive maps that are increasingly tailored towards the individual user, and HERE believes in this regard that the only competitive platform to its own is that of Google.

TomTom, which is today the primary competitor to HERE in embedded navigation solutions for the automotive industry, also licenses map data to other industries, including the consumer markets, and counts Apple as one of its customers. Apple, which offers its own mapping service, has sought to strengthen its location assets and capabilities through targeted acquisitions and organic growth.

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**Making sophisticated technology simple**

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Business overview

Nokia Technologies

**Z Launcher**

Z Launcher from Nokia Technologies learns and adapts to user preferences, and enables one-touch access to apps: faster, easier, more intuitive navigation using scribble letter recognition to find what users want.

500 000+

Activations of Z Launcher s Beta version

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Nokia Technologies

Nokia Technologies manages an IP portfolio of approximately 10 000 patent families comprised of approximately 30 000 individual patents and patent applications. Over the last two decades, Nokia invested more than EUR 50 billion in the development of enabling technologies in virtually all the mobile devices used today.

The experts at the core of Nokia Technologies' business solve problems in project-specific teams in addition to working closely with leading universities and technology partners on a global scale. Nokia Technologies operates its primary technology development centers in Espoo and Tampere, Finland, Cambridge, the United Kingdom, as well as Silicon Valley in the United States.

Z Launcher by Nokia is an intuitive Android launcher that adapts to user inputs, surfacing relevant apps and content at the right moment. Any app can be accessed in one second through an exceedingly simple handwriting feature.

Nokia Technologies is a leading innovator in key cellular standards, as well as wireless LAN, NFC and various audio, speech and video codecs.

The technology standards developed by our core R&D team extend beyond mobile devices to a broad range of sectors. The H.265 video compression standard, for which Nokia led development and the 3rd Generation Partnership Project (3GPP) standards body adopted, delivers outstanding picture quality at roughly double the efficiency of the previous standard. H.265 (HEVC - High Efficiency Video Coding) is integrated into some of the latest consumer displays capable of ultra-high definition ( UHD ) presentation.

• Patent, technology and brand licensing

• Leading innovator in key cellular standards as well as in wireless LAN, NFC and various audio, speech and video codecs

• Primary technology centers located in Espoo and Tampere, Finland, Cambridge, the United Kingdom and Silicon Valley, the United States

60+

Licensees

**Nokia Technologies**





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Business overview

### **Market overview**

Nokia Technologies aims to be a leader in technology development and licensing, building on several of Nokia's former Chief Technology Office (CTO) and IPR licensing activities. Today, as part of our newly formed business, Nokia Technologies, the research agenda of our engineers, scientists and researchers is shifting to address opportunities in a broader market that both encompasses and goes beyond mobile devices. We see a world where billions of devices—large, small and minuscule—will connect to form intelligent systems, and we see significant potential for our own technologies and intellectual property in that world.

### **Business overview**

Nokia Technologies develops and licenses technologies we believe will enable the Programmable World. We seek to create value from our investments by expanding our successful patent licensing program and helping other companies and organizations benefit from our innovations through our established and successful licensing business. Additionally, we are also exploring the possibility of utilizing new technologies in our own future products and services.

Nokia Technologies was formed upon the closing of the Sale of the D&S Business. The Nokia Technologies business combines a leading team from Nokia's former CTO with our world-class IPR activities. The business builds on the foundation established by Nokia through investing cumulatively more than EUR 50 billion in R&D over the last two decades.

The research agenda of our engineers, scientists and researchers is shifting to address opportunities in a broader market that both encompasses and goes beyond mobile devices.

Innovations from our R&D activities created and shaped the fundamental technologies used in all mobile products and in multiple wireless communications technologies today. We are continuing to build on that heritage to drive further innovations, with a focus on multimedia, connectivity, sensing and material technologies, as well as imaging, audio, web and cloud technologies.

During 2014, Nokia Technologies' revenue was mainly attributable to income from intellectual property. The majority of the revenue was attributable to licensing its SEPs. Nokia Technologies is a leading innovator in key cellular standards, as well as wireless LAN, NFC and various audio, speech and video codecs, and we believe the licensing of SEPs will continue to be a strength for Nokia Technologies in the future.

50bn+

Invested in R&D over the last two decades

10 000

Patent families

30 000

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Individual patents

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Nokia Technologies continued

### **Strategy**

Nokia Technologies' strategy consists of: 1) Patent Licensing, focused on licensing our standard-essential and other patents to companies in the mobile devices market and beyond; 2) Technology Licensing, focused on licensing proprietary technologies to enable our customers to build better products; 3) Brand Licensing, to help our customers leverage the value of the Nokia brand in consumer devices, the first example being the Nokia N1 Android tablet announced in the fourth quarter 2014; and 4) Incubation, focused on developing new ideas and prototypes; all supported by Nokia Labs, its world-class R&D team.

For examples of Nokia Technologies' progress relative to its strategy refer to "Operating and financial review and prospects" Main events in 2014 Nokia Technologies operating highlights .

### **Sales and marketing**

While a new business, Nokia Technologies already has significant ongoing R&D activities and an established patent licensing program. Nokia Technologies manages its intellectual property as a technology asset and seeks a return on its investments by making its innovations available to the markets through licensing activities and transactions. Nokia Technologies currently has more than 60 licensees, mainly for Nokia SEPs.

Nokia Technologies further sees opportunities in licensing its proprietary technologies, intellectual property and brand assets into telecommunications and adjacent industries. Over the past ten years, Nokia has also systematically licensed certain Nokia proprietary technologies, which we have decided not to reserve solely for our internal use. This has enabled numerous companies and businesses to benefit from Nokia's innovations, in areas such as connectivity and imaging.

### **Research and development**

The Nokia Technologies' team consists of a great number of world-class scientists and engineers who have driven more than half of Nokia's recent patent filings and many of whom are recognized as leading experts in fields that are essential for enabling the future Programmable World. These fields include low-power connected smart multi-sensor systems, distributed sensing, and intelligent interplay between various types of radio technologies.

Additionally, Nokia Technologies' team has been particularly strong in 3G and 4G innovation, media codecs and imaging, for example. The applied nature of our R&D in Nokia Technologies has resulted in various relevant and valuable inventions both in and around the technology areas, which we believe are important in the Programmable World, as well as for emerging consumer experiences.

### **Nokia N1**

A simple interface and unique one-piece aluminium design are at the heart of the N1, the first Nokia-branded Android tablet designed by Nokia Technologies. It offers the innovative, predictive Nokia Z Launcher interface, within a thin and light device that is easy to hold.



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### Business overview

Nokia Technologies has advanced R&D activities in countries including Finland, the United Kingdom, and the United States. Nokia Technologies also collaborates in open innovation with universities and research institutes globally.

Nokia Technologies holds several central roles in standardization bodies and contributes to standardization work by filing technical proposals which, when found relevant, are often accepted and embodied in standards. In addition, Nokia Technologies develops reference implementations while defining the standards, which result in significant innovations covering proprietary ways to implement relevant technologies.

For examples of Nokia Technologies' R&D achievements in 2014 refer to [Operating and financial review and prospects](#) [Main events in 2014](#) [Nokia Technologies operating highlights](#) .

Nokia Technologies sees opportunities in licensing its proprietary technologies, intellectual property and brand assets into telecommunications and adjacent industries.

### **Patents and licenses**

We manage an IP portfolio with approximately 10 000 patent families comprised of approximately 30 000 individual patents and patent applications. In industry terms, our portfolio is relatively young: ten years from now, two-thirds of our current patents will continue to be in force. We continue to renew our patent portfolio with innovations produced by our strong R&D team.

### **Competition**

Our current patent portfolio spans a number of technology categories including radio connectivity and networking, multimedia, user interface ( UI ) and software, hardware, product, and mapping and location services. As Nokia Technologies expands its successful licensing program to cover patents which have not been broadly licensed to date, as well as proprietary technologies and other intellectual property, it could face competition from alternate technologies or solutions. However, it is too early to anticipate which of these may be significant in future.

### **Breakdown of Nokia Technologies' IP portfolio**

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Discontinued operations

## **Devices & Services business sold to Microsoft**

### **Segment overview**

With the closing of the Sale of the D&S Business, Nokia exited the business of selling mobile devices. Prior to the Sale, Nokia created products for virtually every demographic, with sales in more than 160 countries. The Devices & Services business was comprised of two business units: Mobile Phones, which focused on the area of mass market entry and feature phones as well as affordable smartphones; and Smart Devices, which focused on advanced products, including smartphones powered by the Windows Phone operating system.

### **Mobile Phones**

The Mobile Phones unit developed ultra-low cost phones, feature phones and affordable smartphones, with most models running the Nokia Asha software platform and the Series 30+ operating system. In early 2014, the unit also introduced its first affordable smartphones based on the Nokia X software platform, which offers access to Android applications. The major Mobile Phones development sites were located in Beijing, China and Oulu, Finland.

The strategy of the Mobile Phones unit focused on leveraging the company's innovation and strength in growth markets to provide people with an affordable internet experience on their mobile device. The most affordable products were targeted at consumers for whom durability, good battery life and price are most important. The Mobile Phones business unit also produced a range of affordable smartphones whose hardware, software and services are optimized for and not compromised by low price points.

As part of the Sale of the D&S Business, Microsoft has licensed, for a limited time, the Nokia brand for use with certain products from the Mobile Phones unit as well as acquired the Asha brand

under which Nokia marketed some of its Mobile Phones products.

### **Smart Devices**

The Smart Devices unit, which was acquired by Microsoft in its entirety, focused on developing smartphones based on Microsoft's Windows Phone operating system.

Nokia brought its first Windows Phone products under the Lumia brand to market in 2011, several months after entering into a strategic partnership with Microsoft. We then expanded the depth and breadth of the Lumia range, contributing to Windows Phone becoming the third-largest ecosystem globally in 2013. As part of the Sale of the D&S Business, Microsoft acquired the Lumia brand under which Microsoft has continued to introduce new smartphone models, following the completion of the transaction.

## **Sales and marketing**

We derived our net sales of mobile devices primarily from sales to mobile network operators and distributors, and to a lesser extent independent retailers, corporate customers and consumers. The marketing efforts were aimed at creating consumer loyalty, enhancing the Nokia brand and increasing sales. In the marketing of mobile devices, we focused on expanding awareness of the key points of differentiation in our products and services, such as the imaging capabilities of our high-end smartphones or the robust quality and long battery life of our most affordable feature phones. We also engaged consumers through our own social media channels, including Nokia Conversations.



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Business overview

**Production of mobile devices**

Until the closing of the Sale of the D&S Business, Nokia operated a total of eight production facilities with the purpose of production and customization of mobile devices. The production facilities were located in Manaus, Brazil; Beijing and Dongguan, China; Komárom, Hungary; Chennai, India; Reynosa, Mexico; Masan, Republic of Korea and Hanoi, Vietnam.

Following the closing of the Sale of the D&S Business, Nokia's manufacturing facilities transferred to Microsoft with the exception of the manufacturing facilities located in Chennai, India and Masan, Republic of Korea. In India, our manufacturing facility is subject to an asset freeze by the Indian tax authorities as a result of ongoing tax proceedings and was not transferred to Microsoft as part of the Sale of the D&S Business. It continued to produce devices under contract for Microsoft following the close of the Sale of the D&S Business, however, production was suspended in November 2014 due to a lack of orders. In the Republic of Korea, Nokia and Microsoft agreed to exclude the Masan facility from the scope of the transaction, resulting in Nokia closing the site in 2014. None of these facilities is subject to a material encumbrance, with the exception of the mobile devices related facility in Chennai as tax authorities in India have placed a lien on this facility prohibiting Nokia to transfer this facility.

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Principal industry trends affecting operations

### **Business specific trends**

#### **Nokia Networks**

Nokia Networks is a leading vendor in the mobile infrastructure market, providing a broad range of different products, from the hardware components of networks used by network operators to software solutions supporting the efficient interaction of networks, as well as services to plan, optimize, implement, run and upgrade mobile operators' networks. Nokia Networks is investing in the innovative products and services needed by telecom operators to manage the increase in wireless data traffic. Nokia Networks plans to focus its future investments in further building on its strong position in mobile broadband and related services, and strengthening its leadership position in next-generation network technologies, which it believes will be important enablers for the future networks by connecting tens of billions of devices. For more information on the Nokia Networks business refer to [Business overview Nokia Networks](#) above.

#### **Industry trends**

In recent years, the most important trends affecting Nokia Networks have been the increase in the use of mobile data services and the resulting exponential increase in data traffic, which has resulted in an increased need for high performance, quality and reliability in networks. The continuing data traffic increase has, however, not been directly reflected in operators' revenue. As a result, there is an increased need for efficiency for both operators and network infrastructure and services vendors. In addition to the attempts to reduce their costs, the operators want to increase their agility through the adoption of the emerging Telco Cloud and network virtualization technologies. Operator consolidation driven by operators' needs to provide a wider spectrum of services, especially fixed-mobile convergence services, is also a key trend that affects Nokia Networks' business. For more information, refer to [Business overview Nokia Networks](#) .

#### **Pricing and price erosion**

The pricing environment was challenging in 2014, with competition remaining intense and the consequent price erosion impacting Nokia Networks' net sales and profitability.

#### **Product mix**

Nokia Networks' profitability is also impacted by product mix including the share of software in the sales mix. Products and services have varying profitability profiles. The Mobile Broadband segment offers a combination of hardware and software. Software products generally have higher gross margins; however, they require significantly higher R&D investments. Global Services' offerings are typically labor-intensive, while carrying low R&D investment, and have relatively low gross margins compared to the hardware and software products of Mobile Broadband.

### **Seasonality and cyclical nature of projects**

Nokia Networks sales are affected by seasonality in the network operators spending cycles, with generally higher sales in the fourth quarter, as compared to the first quarter of the following year. In addition to normal industry seasonality, there are normal peaks and troughs in the deployment of large infrastructure projects. The timing of these projects is dependent on new radio spectrum allocation, network upgrade cycles and the availability of new consumer devices, which in turn affects Nokia Networks sales. Nokia Networks profitability can be affected by changes in the sales volume, as well as the requirement to source large volumes of components on short notice, which can impact the

cost of sales, or in cases where component shortages emerge, the net sales.

### **Continued operational efficiency improvements**

In 2014, the transformation to an efficient operating model brought industry leading margins and increased R&D efficiency to Nokia Networks. Nokia Networks continues to focus on operational improvement across its business. Its Smarter program has a key role in making Nokia Networks a continuously more efficient and high-performing company positioned for long-term success. The program aims at further strengthening its productivity, efficiency and competitive cost structure, and Nokia Networks will bring performance excellence methodologies such as Kaizen, Lean, and Six Sigma to every part of its business. Nokia Networks also pursues further efficiency gains from increased automation in Global Services delivery and in other areas, as well as continued improvements in R&D efficiency and agility.

### **Uninterrupted service even at the biggest events**

The Nokia Smart Scheduler, used to optimize cell capacity and network efficiency, played a key part in delivering seamless LTE services at one of the world's showcase racing events in Shanghai. By managing uplink interference, signalling capacity and load balancing, it delivered uninterrupted service availability throughout the event.

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Operating and financial review and prospects

**Cost of components and raw materials**

There are several factors driving Nokia Networks' profitability: scale, operational efficiency, and pricing and cost discipline have been, and will continue to be, important factors affecting profitability and competitiveness. Nokia Networks product costs comprise, among others, components, manufacturing, labor and overhead, royalties and licensing fees, depreciation of product machinery, logistics and warranty and other quality costs.

**Targets and priorities**

Over the long term, Nokia targets to grow Nokia Networks' net sales slightly faster than the market.

Nokia expects Nokia Networks' operating margin for the full year 2015 to be in-line with Nokia Networks' targeted long-term operating margin range of 8% to 11%, excluding special items and purchase price accounting related items. In addition, Nokia expects Nokia Networks' net sales to grow on a year-on-year basis for the full year 2015. This outlook is based on Nokia's expectations regarding a number of factors, including:

- competitive industry dynamics;
- product and regional mix;
- the timing of major new network deployments; and
- expected continued improvement under Nokia Networks' transformation programs.

**HERE**

Our HERE business is a leading provider of maps and location experiences across multiple screens and operating systems and is focused on producing the most accurate and fresh map content, available across multiple devices and operating systems. HERE continues to invest in its leading location cloud to make it the source of location intelligence and experiences across many different operating systems, platforms and screens. We believe that location is an essential element of the Programmable World, hence HERE is targeting its investments in three areas: 1) Automotive, for location content and technology for smart, connected and automated cars; 2) Enterprise, for location-based analytics for better business decisions; and 3) Consumer, for serving ecosystem players through cloud-based services for personal mobility and location intelligence through seamless experiences across multiple screens. For more information on the HERE business, refer to [Business overview HERE](#).

**Seasonality**

HERE's sales to the automotive industry are affected by seasonality in the automobile market, navigation device market, and mobile device market, with generally higher sales in the fourth quarter compared to the first quarter of the

following year.

### **Vertical and horizontal opportunities in map content, platform and applications**

HERE is a leading provider of map content and is focused on providing the richest, most accurate and most current maps, since these attributes are becoming more important for consumers and providers of location services. HERE's ability to offer independent solutions at various levels of the value chain offers both vertical and horizontal opportunities. HERE sees opportunities in being able to offer solutions across ecosystems and different layers within them, as well as with different types of devices.

HERE's map data provides a strong foundation, and HERE's cloud-based map platform enables it to compete at multiple levels of the location services value chain including partnering with automobile vendors and internet services companies for their own differentiated offerings.

### **Great maps for the world's most popular mobile platform**

In 2014, HERE launched its first application on Android, featuring accurate maps that are always available, even without an internet connection. Using GPS for location finding, the app allows users to browse maps, search for places and navigate even when they don't have access to a network.



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Principal industry trends affecting operations continued

The HERE map platform enables its location intelligence and experiences to be distributed in the cloud and to be used across a number of different operating systems, platforms and screens. This enables the users of the platform to license certain parts of HERE's offering, including content, location services and functionalities, such as routing and positioning. Access to the platform also allows users to build specific applications for location-related services.

### **Automotive and other industries**

We continue to see opportunities within the automotive and other industries that require location-based intelligence. An area of interest is the automotive industry, where HERE's focus goes beyond the traditional turn-by-turn navigation, with HERE's offering planned to evolve towards Smart Guidance - HERE's connected driving solutions for inside and outside of the car - and later towards concepts such as the Intelligent Car for automated driving. As these are new areas, our success in terms of transforming development efforts into sales is dependent on these concepts developing commercially and on HERE's ability to produce products that are appealing to the industry.

In general, we believe there is a trend of more and more connected things. We believe there may be opportunities for location-based intelligence to serve as a key dimension in this development, and we believe HERE is well-positioned to capture those potential growth opportunities with its broad offering, for example through our business with Samsung.

As the automotive industry is a significant contributor to HERE's sales, the broader economy and its influence on new car sales are an important factor in HERE's future success. The adoption rate of in-car navigation products and services is important as well. In general, adoption of these types of products has been increasing and is expected to further increase as connectivity becomes more pervasive in cars. The gradual move towards an increasing number of cars being connected also offers the possibility to provide more value-adding services to the automotive industry.

### **Targets and priorities**

Nokia expects HERE's net sales to grow on a year-on-year basis for the full year 2015, and HERE's operating margin for the full year 2015 to be between 7% and 12%, excluding special items and purchase price accounting related items.

### **Nokia Technologies**

Nokia Technologies pursues new business opportunities built on Nokia's innovations and the Nokia brand. Nokia Technologies develops and licenses cutting-edge innovations that are powering the next revolution in computing and mobility. The Nokia Technologies strategy consists of: 1) Patent Licensing, focused on licensing our standard-essential and other patents to companies in the mobile devices market, consumer electronics and beyond; 2) Technology Licensing, focused on licensing and transferring proprietary technologies to enable our partners to build better products; 3) Brand Licensing, to help our customers leverage the value of the Nokia brand in consumer devices; and 4) Incubation, focused on developing new ideas and prototypes; all supported by Nokia Labs, our world-class R&D team. For more information on the Nokia Technologies business, refer to Business overview Nokia Technologies .

### **Monetization strategies of IPR**

Success in the technology industry requires significant R&D investments, with the resulting patents and other IPR utilized to protect and generate a return on those investments and related inventions. In recent years, we have seen new entrants in the mobile device industry, many of which do not have licenses to our patents. Our aim is to approach these companies by potentially utilizing one or more means of monetization. We believe we are well-positioned to protect, and build on, our existing industry-leading patent portfolio, and consequently increasing shareholder value.

We see three main means for monetizing our innovations: 1) Patent Licensing; 2) Technology Licensing; and 3) Brand Licensing. Additionally, our incubation activities may from time to time lead to concepts that we could consider licensing or bringing to the market as products or services ourselves.

In Patent Licensing, the main opportunities we are pursuing are: 1) renewal of existing license agreements, and negotiating new license agreements with mobile device manufacturers; and 2) expanding the scope of licensing activities to other industries, in particular those that implement mobile communication technologies. We no longer need patent licenses for our former Devices & Services business, enabling possibilities to improve the balance of inbound and outbound patent licensing.

### **Global service delivery**

Nokia Networks successfully delivers Vodafone Australia multi-technology, multi-vendor Managed Services from its Global Delivery Center in India.

We believe there may be opportunities for location-based services support the internet of things.

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Operating and financial review and prospects

In Technology Licensing the opportunities are more long term in our view, but we will look at opportunities to license technologies developed by Nokia Technologies and delivered to partners in consumer electronics as solutions or technology packages that can be integrated into their products and services to help enable the Programmable World.

In Brand Licensing, we will continue to look at further opportunities to bring the Nokia brand into consumer devices, by licensing our brand and other intellectual property, as well as, for example, industrial design.

To grow each of the aforementioned business programs it is necessary to invest in commercial capabilities to support them.

### **General trends in IPR licensing**

In general, there has been increased focus on IPR protection and licensing, and this trend is expected to continue. As such, new agreements are generally a product of lengthy negotiations and potential litigation or arbitration, and therefore the timing and outcome may be difficult to forecast. Due to the structure of the patent license agreements, the payments may be very infrequent, at times retrospective in part, and the lengths of license agreements can vary.

Additionally, there are clear regional differences in the ease of protecting and licensing patented innovations. We have seen some licensees actively avoiding license payments, and some licensors using aggressive methods to collect them, both behaviors attracting regulatory attention. We expect the discussion on the regulation of licensing to continue on both a global and regional level. Some of those regulatory developments may be adverse to the interests of technology developers and patent owners, including Nokia.

### **Research, development and patent portfolio development**

As the creation of new technology assets and patented innovations is heavily focused on R&D activities with long lead-time to incremental revenues, we may from time to time see investment opportunities that have strategic importance. This generally affects the operating expenses before sales reflect a return on those investments.

### **Targets and priorities**

Nokia expects Nokia Technologies net sales to grow on a year-on-year basis for the full year 2015, excluding potential amounts related to the expected resolution of the arbitration with Samsung. Also, Nokia expects Nokia Technologies operating expenses, excluding special items and purchase price accounting related items, to increase meaningfully on a year-on-year basis for the full year 2015. More specifically, Nokia expects Nokia Technologies quarterly operating expenses, excluding special items and purchase price accounting related items, in 2015 to be approximately in-line with the fourth quarter 2014 level. This is related to higher investments in licensing activities, licensable technologies, and business enablers including go-to-market capabilities, which target new and significant long-term growth opportunities.

### **Trends affecting our businesses**

#### **Exchange rates**

Nokia is a company with global operations and net sales derived from various countries and invoiced in various currencies. Therefore, our business and results from operations are exposed to changes in exchange rates between the euro, our reporting currency, and other currencies, such as the US dollar, Japanese yen and the Chinese yuan. The magnitude of foreign exchange exposures changes over time as a function of our net sales and costs in different markets, as

well as the prevalent currencies used for transactions in those markets. Refer also to [General Facts on Nokia](#) [Selected financial data](#) [Exchange rate data](#) below.

To mitigate the impact of changes in exchange rates on our results, we hedge material net foreign exchange exposures (net sales less costs in a currency). We hedge forecasted net cash flows typically with up to 12-month hedging horizon. For the majority of these hedges, hedge accounting is applied to reduce income statement volatility.

In 2014, approximately 30% of Continuing operations net sales and approximately 35% of Nokia's continuing operations costs were denominated in euro. In 2014, approximately 30% of Nokia's continuing operations net sales were denominated in US dollar and approximately 10% each were denominated in Japanese yen, and in Chinese yuan.

During 2014, the US dollar appreciated against the euro and this had a positive impact on our net sales expressed in euros. However, the stronger US dollar also contributed to higher cost of sales and operating expenses, as approximately 30% of our total cost base was in US dollars. In total, before hedging, the appreciation of the US dollar had a small positive effect on our operating profit in 2014.

During 2014, the Japanese yen depreciated against the euro and this had a negative impact on our net sales expressed in euros. However, the weaker Japanese yen also contributed to lower cost of sales and operating expenses, as approximately 5% of Nokia's continuing operations total costs were denominated in Japanese yen. In total, before hedging, the depreciation of the Japanese yen had a small negative effect on our operating profit in 2014.

During 2014, the Chinese yuan appreciated against the euro and this had a positive impact on our net sales expressed in euros. However, the stronger Chinese yuan also contributed to higher cost of sales and operating expenses, as approximately 10% of Nokia's continuing operations total costs were denominated in Chinese yuan. In total, before hedging, the appreciation of the Chinese yuan had a small negative effect on our operating profit in 2014.

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, refer to Note 35, Risk management, of our consolidated financial statements included in this annual report on Form 20-F. Refer also to [Operating and financial review and prospects](#) [Risk Factors](#) [Risks relating to Nokia](#) .

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## Results of operations

The financial data included in this Operating and financial review and prospects section at and for the year ended December 31, 2013 and 2014 and for each of the years in the three-year period ended December 31, 2014 has been derived from our audited consolidated financial statements included in this annual report on Form 20-F. The financial data at December

31, 2013 and 2014 and for each of the years in the three-year period ended December 31, 2014 should be read in conjunction with, and are qualified in their entirety by reference to, our audited consolidated financial statements.

**Continuing operations****For the year ended December 31, 2014 compared to the year ended December 31, 2013**

The following table sets forth selective line items and the percentage of net sales that they represent for the years indicated.

	<b>2014</b>		<b>2013</b>		<b>Year-on-year</b>
	<b>EURm</b>	<b>% of net sales</b>	<b>EURm</b>	<b>% of net sales</b>	<b>change</b>
<b>For the year ended December 31</b>					<b>%</b>
<b>Net sales</b>	<b>12 732</b>	<b>100.0</b>	<b>12 709</b>	<b>100.0</b>	<b>0</b>
Cost of sales	(7 094)	(55.7)	(7 364)	(57.9)	(4)
<b>Gross profit</b>	<b>5 638</b>	<b>44.3</b>	<b>5 345</b>	<b>42.1</b>	<b>6</b>
Research and development expenses	(2 493)	(19.6)	(2 619)	(20.6)	(5)
Selling, general and administrative expenses	(1 634)	(12.8)	(1 671)	(13.1)	(2)
Impairment of goodwill	(1 209)	(9.5)			
Other income and expenses	(132)	(1.0)	(536)	(4.2)	(75)
<b>Operating profit/(loss)</b>	<b>170</b>	<b>1.3</b>	<b>519</b>	<b>4.1</b>	<b>(67)</b>

**Net sales**

Continuing operations net sales in 2014 were EUR 12 732 million, an increase of EUR 23 million compared to EUR 12 709 million in 2013. The increase in Continuing operations net sales was primarily attributable to higher net sales in HERE and Nokia Technologies. The increase was partially offset by a slight decrease in net sales in Nokia Networks.

The increase in net sales in HERE was primarily attributable to higher sales to vehicle customers and Microsoft becoming a more significant licensee of HERE's services. The increase in net sales in Nokia Technologies was primarily attributable to higher intellectual property licensing income from certain licensees, including Microsoft becoming a more significant intellectual property licensee in conjunction with the Sale of the D&S Business. The slight decrease in net sales in Nokia Networks was primarily attributable to a decrease in net sales in Global Services, as well as the absence of sales from businesses that were divested and certain customer contracts and countries that were exited in 2013. The decrease in net sales in Global Services was partially offset by an increase in net sales in Mobile Broadband.

The following table sets forth the distribution by geographical area of net sales for the years indicated.

	2014	2013	Year-on-year change
<b>For the year ended December 31</b>	<b>EURm</b>	<b>EURm</b>	<b>%</b>
Europe <sup>(1)</sup>	3 886	3 940	(1)
Middle East & Africa	1 100	1 169	(6)
Greater China	1 410	1 201	17
Asia-Pacific	3 364	3 428	(2)
North America	1 919	1 656	16
Latin America	1 053	1 315	(20)
<b>Total</b>	<b>12 732</b>	<b>12 709</b>	<b>0</b>

(1) All Nokia Technologies net sales are allocated to Finland.

Refer to Results of segments Nokia Networks for the main changes in the regional net sales.

### Gross margin

Gross margin for Continuing operations in 2014 was 44.3% compared to 42.1% in 2013. The increase in Continuing operations gross margin was primarily attributable to the increase in gross margin in Nokia Networks. The increase was partially offset by a decrease in gross margin in HERE.

The increase in gross margin in Nokia Networks was primarily attributable to a higher proportion of Mobile Broadband in the overall sales mix and an increase in gross margin in Global Services was partially offset by a slight decrease in gross margin in Mobile Broadband. The decrease in gross margin in HERE was primarily due to certain ongoing expenses that had been previously borne by our former Devices & Services business.

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Operating and financial review

**Operating expenses**

Our R&D expenses for Continuing operations in 2014 were EUR 2 493 million, a decrease of EUR 126 million, or 5%, compared to EUR 2 619 million in 2013. R&D expenses represented 19.6% of our net sales in 2014 compared to 20.6% in 2013. The decrease in R&D expenses was primarily attributable to the decrease in R&D expenses in HERE and Nokia Networks, partially offset by higher R&D expenses in Nokia Technologies.

The decrease in R&D expenses in HERE was primarily attributable to significant purchase price accounting related items of EUR 168 million in 2013 arising from the purchase of NAVTEQ, the majority of which were fully amortized in 2013. The decrease in R&D expenses in Nokia Networks was primarily attributable to lower subcontracting costs, partially offset by higher investments in targeted growth areas, most notably LTE, small cells and Telco Cloud. The increase in R&D expenses in Nokia Technologies was primarily attributable to investments in business activities, such as the Technology and Brand licensing opportunities, which target new and significant long-term growth opportunities.

R&D expenses included purchase price accounting related items of EUR 36 million in 2014 compared to EUR 188 million in 2013. In 2014, R&D expenses included EUR 23 million of transaction related personnel costs related to the Sale of the D&S Business compared to EUR 15 million in 2013.

Our selling, general and administrative expenses for Continuing operations in 2014 were EUR 1 634 million, a decrease of EUR 37 million, or 2%, compared to EUR 1 671 million in 2013. Selling, general and administrative expenses represented 12.8% of our net sales in 2014 compared to 13.1% in 2013. The decrease in selling, general and administrative expenses was primarily attributable to the decrease in selling, general and administrative expenses in Nokia Networks. The decrease was partially offset by an increase in selling, general and administrative expenses in Group Common Functions and Nokia Technologies.

The decrease in selling, general and administrative expenses in Nokia Networks was primarily attributable to structural cost savings from Nokia Networks' global restructuring program. The increase in selling, general and administrative expenses in Group Common Functions was primarily attributable to transaction related costs resulting from the Sale of the D&S Business. The increase in selling, general and administrative expenses in Nokia Technologies was primarily attributable to increased activities related to anticipated and ongoing patent licensing cases.

Selling, general and administrative expenses included purchase price accounting items of EUR 40 million in 2014 compared to EUR 93 million in 2013. In 2014, selling, general and administrative expenses included EUR 31 million of transaction related costs related to the Sale of the D&S Business.

A goodwill impairment charge of EUR 1 209 million was recorded in the third quarter 2014. Refer to Note 10, Impairment, of our consolidated financial statements included in this annual report on Form 20-F.

Other income and expenses for Continuing operations in 2014 was a net expense of EUR 132 million, a decrease of EUR 404 million, or 75%, compared to a net expense of EUR 536 million in 2013. The decrease in other income and expenses was primarily attributable to lower restructuring and associated charges at Nokia Networks, partially offset by lower other income in Group Common Functions. In 2014, other income and expenses included restructuring and

associated charges of EUR 57 million at Nokia Networks, charges related to the HERE cost reduction program of EUR 36 million and anticipated contractual remediation costs of EUR 31 million at Nokia Networks. In 2013, other income and expenses included restructuring and associated charges of EUR 602 million, and transaction related costs of EUR 18 million related to the Sale of the D&S Business.

### **Operating profit/loss**

Our operating profit for Continuing operations in 2014 was EUR 170 million, a decrease of EUR 349 million, or 67%, compared to an operating profit of EUR 519 million in 2013. The decrease in operating profit was primarily attributable to the goodwill impairment charge relating to HERE and the higher expenses in Group Common Functions. The decrease was partially offset by an increase in operating profit in Nokia Networks and Nokia Technologies. Our operating profit in 2014 included a EUR 1 209 million goodwill impairment charge relating to HERE. In addition, it included purchase price accounting items, restructuring charges and other special items of EUR 253 million compared to EUR 917 million in 2013. Our operating margin in 2014 was 1.3% compared to 4.1% in 2013.

### **Net financial income and expenses**

Financial income and expenses for Continuing operations was a net expense of EUR 395 million in 2014 compared to a net expense of EUR 280 million in 2013, an increase of EUR 115 million, or 41%. The higher net financial expense in 2014 was primarily attributable to EUR 123 million of one-time expense related to the redemption of materially all of Nokia Networks borrowings, and a non-cash charge of EUR 57 million related to the repayment of EUR 1.5 billion convertible bonds issued to Microsoft in the second quarter 2014. These charges were partially offset by reduced interest expenses during the second half of the year and lower net losses related to foreign exchange.

Refer to [Liquidity and capital resources](#) below.



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Results of operations continued

**Profit/loss before taxes**

Continuing operations loss before tax in 2014 was a loss of EUR 237 million, a decrease of EUR 480 million compared to a profit before tax of EUR 243 million in 2013.

**Income tax**

Income taxes for Continuing operations amounted to a net benefit of EUR 1 408 million in 2014, a change of EUR 1 610 million compared to a net expense of EUR 202 million in 2013. The net income tax benefit was primarily attributable to the recognition of EUR 2 126 million of deferred tax assets from the reassessment of recoverability of tax assets in Finland and Germany in 2014. This resulted in a EUR 2 034 million non-cash tax benefit in the third quarter 2014. Based on recent profitability and forecasts at that time, we were able to re-establish a pattern of sufficient profitability in Finland and Germany to utilize the cumulative losses, foreign tax credits and other temporary differences. A significant portion of our Finnish and German deferred tax assets are indefinite in nature and available against future Finnish and German tax liabilities. The EUR 2 034 million non-cash tax benefit was partially offset by the recognition of a net expense of EUR 341 million in valuation allowances related to HERE's Dutch deferred tax assets in 2014. Refer to Note 13, Income Tax and Note 14, Deferred taxes, of our consolidated financial statements included in this annual report on Form 20-F.

Our current tax for Continuing operations was an income tax expense of EUR 374 million for the year ended December 31, 2014, compared to EUR 354 million for the year ended December 31, 2013. Refer to Note 13, Income taxes, of our consolidated financial statements included in this annual report on Form 20-F.

**Non-controlling interests**

Profit for Continuing operations attributable to non-controlling interests in 2014 was EUR 8 million, an increase of EUR 153 million compared to a loss attributable to non-controlling interests of EUR 145 million for 2013. The change was primarily attributable to our acquisition of Siemens' stake in Nokia Networks (formerly Nokia Siemens Networks) in August 2013, which significantly reduced the non-controlling interests in that business.

**Profit/loss attributable to equity holders of the parent and earnings per share**

Nokia Group's total profit attributable to equity holders of the parent in 2014 was EUR 3 462 million, an increase of EUR 4 077 million, compared to a loss of EUR 615 million in 2013. This included a gain of EUR 3 175 million from the Sale of the D&S Business. Continuing operations generated a profit attributable to equity holders of the parent in 2014, amounting to EUR 1 163 million compared to a profit of EUR 186 million in 2013. Nokia Group's total basic earnings per share in 2014 increased to EUR 0.94 (basic) and EUR 0.85 (diluted) compared to EUR (0.17) (basic) and EUR (0.17) (diluted) in 2013. From Continuing operations, earnings per share in 2014 increased to EUR 0.31 (basic) and EUR 0.30 (diluted) compared to EUR 0.05 (basic) and EUR 0.05 (diluted) in 2013.

**For the year ended December 31, 2013 compared to the year ended December 31, 2012**

The following table sets forth selective line items and the percentage of net sales that they represent for years indicated.

	2013		2012		Year-on-year
	EURm	% of net sales	EURm	% of net sales	change %
<b>For the year ended December 31</b>					
<b>Net sales</b>	<b>12 709</b>	<b>100.0</b>	<b>15 400</b>	<b>100.0</b>	<b>(17)</b>
Cost of sales	(7 364)	(57.9)	(9 841)	(63.9)	(25)
<b>Gross profit</b>	<b>5 345</b>	<b>42.1</b>	<b>5 559</b>	<b>36.1</b>	<b>(4)</b>
Research and development expenses	(2 619)	(20.6)	(3 081)	(20.0)	(15)
Selling and marketing expenses	(974)	(7.7)	(1 372)	(8.9)	(29)
Administrative and general expenses	(697)	(5.5)	(690)	(4.5)	(1)
Other income and expenses	(536)	(4.2)	(1 237)	(8.0)	(57)
<b>Operating profit/(loss)</b>	<b>519</b>	<b>4.1</b>	<b>(821)</b>	<b>(5.3)</b>	<b>163</b>

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Operating and financial review

**Net sales**

Continuing operations net sales declined by 17% to EUR 12 709 million in 2013 compared with EUR 15 400 million in 2012. The decline in Continuing operations net sales in 2013 was primarily due to lower Nokia Networks and HERE net sales. The decline in Nokia Networks net sales was partially due to divestments of businesses not consistent with its strategic focus, as well as the exiting of certain customer contracts and countries. Excluding these two factors, Nokia Networks net sales in 2013 declined by approximately 13% primarily due to reduced wireless infrastructure deployment activity, which affected both Global Services and Mobile Broadband. The decline in HERE net sales was primarily due to a decline in internal\* HERE net sales due to lower recognition of deferred revenue related to our smartphone sales, partially offset by an increase in external HERE net sales due to higher sales to vehicle customers. Additionally, Nokia Networks and HERE net sales were adversely affected by foreign currency fluctuations.

The following table sets forth the distribution by geographical area of our net sales for the fiscal years 2013 and 2012.

	<b>2013</b>	<b>2012</b>	<b>Year-on-year change</b>
<b>For the year ended December 31</b>	<b>EURm</b>	<b>EURm</b>	<b>%</b>
Europe <sup>(1)</sup>	3 940	4 892	(19)
Middle East & Africa	1 169	1 362	(14)
Greater China	1 201	1 341	(10)
Asia-Pacific	3 428	4 429	(23)
North America	1 656	1 628	2
Latin America	1 315	1 748	(25)
<b>Total</b>	<b>12 709</b>	<b>15 400</b>	<b>(17)</b>

(1) All Nokia Technologies net sales are allocated to Finland.

\* HERE internal sales refers to sales that HERE had to our Discontinued operations (formerly Devices & Services business) that used certain HERE services in its mobile devices. After the closing of the Sale of the D&S Business, HERE no longer generates such internal sales, however, it will continue to recognize deferred revenue related to this business for up to 24 months after the closing of the Sale of the D&S Business. As part of the Sale of the D&S Business, Microsoft will become a strategic licensee of the HERE platform, and will separately pay HERE for a four-year license that will be recognized ratably as external net sales.

**Gross margin**

Gross margin for Continuing operations in 2013 was 42.1%, compared to 36.1% in 2012. The increase in 2013 was primarily due to a higher Nokia Networks gross margin. Nokia Networks gross margin increased primarily due to improved efficiency in Global Services, an improved product mix with a greater share of higher margin products, and the divestment of less profitable businesses.

## Operating expenses

Our R&D expenses were EUR 2 619 million in 2013, compared to EUR 3 081 million in 2012. R&D expenses represented 20.6% of our net sales in 2013, compared to 20.0% in 2012. R&D expenses included purchase price accounting items of EUR 188 million in 2013, compared to EUR 375 million in 2012. The decrease was primarily due to lower amortization of acquired intangible assets within HERE. In addition, it included EUR 15 million of transaction related costs, related to the Sale of the D&S Business.

In 2013, our selling and marketing expenses were EUR 974 million, compared to EUR 1 372 million in 2012. Selling and marketing expenses represented 7.7% of our net sales in 2013 compared to 8.9% in 2012. The decrease in selling and marketing expenses was due to lower purchase price accounting items and generally lower expenses in Nokia Networks and HERE. Selling and marketing expenses included purchase price accounting items of EUR 93 million in 2013 compared to EUR 313 million in 2012. The decrease was primarily due to items arising from the formation of Nokia Networks becoming fully amortized at the end of the first quarter of 2013.

Administrative and general expenses were EUR 697 million in 2013, compared to EUR 690 million in 2012. Administrative and general expenses were equal to 5.5% of our net sales in 2013 compared to 4.5% in 2012. The increase in administrative and general expenses as a percentage of net sales reflected a decline in net sales in 2013. Administrative and general expenses did not include purchase price accounting items in either 2013 or 2012.

Other income and expenses was a net expense of EUR 536 million in 2013, compared to a net expense of EUR 1 237 million in 2012. In 2013, other income and expenses included restructuring charges of EUR 602 million, as well as transaction related costs of EUR 18 million related to the Sale of the D&S Business. In 2012, other income and expenses included restructuring charges of EUR 1 265 million, including EUR 42 million related to country and contract exits, impairments of assets of EUR 2 million, a negative adjustment of EUR 4 million to purchase price allocations related to the final payment from Motorola as well as amortization of acquired intangible assets of EUR 23 million and a net gain on sale of real estate of EUR 79 million.

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Results of operations continued

**Operating profit/loss**

Our 2013 operating profit was EUR 519 million, compared with an operating loss of EUR 821 million in 2012. The increased operating profit resulted primarily from lower restructuring charges and purchase price accounting items in general and an increase in the operating performance of our Nokia Networks and HERE businesses. Our operating profit in 2013 included purchase price accounting items, restructuring charges and other special items of net negative EUR 917 million compared to net negative EUR 1 963 million in 2012. Our 2013 operating margin was positive 4.1% compared to negative 5.3% in 2012. The improvement was primarily due to an increase in our gross margin and lower expenses in other income and expenses.

**Net financial income and expenses**

Financial income and expenses, net, was an expense of EUR 280 million in 2013 compared to an expense of EUR 357 million in 2012. The lower net expense in 2013 was primarily driven by lower foreign exchange losses.

Refer Liquidity and capital resources below.

**Profit/loss before taxes**

Continuing operations profit before tax was EUR 243 million in 2013, compared to a loss of EUR 1 179 million in 2012. Taxes amounted to EUR 202 million in 2013 and EUR 304 million in 2012.

**Non-controlling interests**

Loss attributable to non-controlling interests from Continuing operations totaled EUR 145 million in 2013, compared with a loss attributable to non-controlling interests of EUR 712 million in 2012. This change was primarily due to an improvement in Nokia Networks results and our acquisition of Siemens stake in Nokia Networks.

**Profit/loss attributable to equity holders of the parent and earnings per share**

Nokia Group's total loss attributable to equity holders of the parent in 2013 amounted to EUR 615 million, compared with a loss of EUR 3 105 million in 2012. Continuing operations generated a profit attributable to equity holders of the parent in 2013, amounting to EUR 186 million, compared with a loss of EUR 771 million in 2012. Nokia Group's total earnings per share in 2013 increased to EUR (0.17) (basic) and EUR (0.17) (diluted), compared with EUR (0.84) (basic) and EUR (0.84) (diluted) in 2012. From Continuing operations, earnings per share in 2013 increased to EUR 0.05 (basic) and EUR 0.05 (diluted), compared with EUR (0.21) (basic) and EUR (0.21) (diluted) in 2012.

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Operating and financial review

**Discontinued operations****For the year ended December 31, 2014 compared to the year ended December 31, 2013**

As the Sale of the D&S Business closed on April 25, 2014, the financial results of the Discontinued operations in 2014 are not comparable to the financial results of the Discontinued operations in 2013.

The following table sets forth selective line items and the percentage of net sales that they represent for years indicated.

	<b>2014<sup>(1)</sup></b>	<b>% of</b>	<b>2013</b>	<b>% of</b>	<b>Year-on-year</b>
	<b>EURm</b>	<b>net sales</b>	<b>EURm</b>	<b>net sales</b>	<b>change</b>
<b>For the year ended December 31</b>					<b>%</b>
<b>Net sales</b>	<b>2 458</b>	<b>100.0</b>	<b>10 735</b>	<b>100.0</b>	<b>(77)</b>
Cost of sales	(2 086)	(84.9)	(8 526)	(79.4)	(76)
<b>Gross profit</b>	<b>372</b>	<b>15.1</b>	<b>2 209</b>	<b>20.6</b>	<b>(83)</b>
Research and development expenses	(354)	(14.4)	(1 130)	(10.5)	(69)
Selling, general and administrative expenses	(447)	(18.2)	(1 560)	(14.5)	(71)
Gain from the sale of Devices & Services business	3 175	129.2			
Other income and expenses	(107)	(4.4)	(109)	(1.0)	(2)
<b>Operating profit/(loss)</b>	<b>2 639</b>	<b>107.4</b>	<b>(590)</b>	<b>(5.5)</b>	<b>547</b>

(1) Represents the results of the Devices & Services business through to April 25, 2014, the gain on the Sale of the D&S Business and subsequent wind-down activities. Refer to Note 3, Disposals treated as discontinued operations, of our consolidated financial statements included in this annual report on Form 20-F.

**Net sales**

Discontinued operations net sales for the period ended April 25, 2014 were EUR 2 458 million, a decrease of EUR 8 277 million, or 77%, compared to EUR 10 735 million in 2013.

**Gross margin**

Discontinued operations gross margin decreased to 15.1% for the period ended April 25, 2014 compared to a gross margin of 20.6% in 2013. The decrease in gross margin was primarily attributable to a decrease in gross margin in both Smart Devices and Mobile Phones.

**Operating expenses**

Discontinued operations operating expenses were EUR 908 million for the period ended April 25, 2014, a decrease of EUR 1 891 million, or 68%, compared to EUR 2 799 million in 2013.

### **Operating profit/loss**

Discontinued operations operating profit for the period ended April 25, 2014 was EUR 2 639 million, an increase of EUR 3 229 million, compared to an operating loss of EUR 590 million in 2013. The increase in discontinued operations operating profit in 2014 was primarily attributable to the gain of EUR 3 175 million from the Sale of the D&S Business.

### **Profit/(loss) for the period**

Discontinued operations profit for the period ended April 25, 2014 was EUR 2 305 million, an increase of EUR 3 085 million compared to a loss of EUR 780 million in 2013.

The increase in Discontinued operations profit for the period ended April 25, 2014 was primarily attributable to the gain of EUR 3 175 million from the Sale of the D&S Business. The increase was partially offset by a tax expense of EUR 127 million primarily due to non-resident capital gains taxes in certain jurisdictions, as well as tax impacts of legal entity restructuring carried out in connection with the Sale of the D&S Business. Refer to Note 3, Disposals treated as discontinued operations, of our consolidated financial statements included in this annual report on Form 20-F.

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Results of operations continued

**For the year ended December 31, 2013 compared to the year ended December 31, 2012**

The following table sets forth selective line items and the percentage of net sales that they represent for years indicated.

	2013		2012		Year-on-year
	EURm	% of net sales	EURm	% of net sales	change %
<b>For the year ended December 31</b>					
<b>Net sales</b>	<b>10 735</b>	<b>100.0</b>	<b>15 152</b>	<b>100.0</b>	<b>(29)</b>
Cost of sales	(8 526)	(79.4)	(12 320)	(81.3)	(31)
<b>Gross profit</b>	<b>2 209</b>	<b>20.6</b>	<b>2 832</b>	<b>18.7</b>	<b>(22)</b>
Research and development expenses	(1 130)	(10.5)	(1 658)	(10.9)	(32)
Selling and marketing expenses	(1 345)	(12.5)	(1 857)	(12.3)	(28)
Administrative and general expenses	(215)	(2.0)	(286)	(1.9)	(25)
Other income and expenses	(109)	(1.0)	(510)	(3.4)	(79)
<b>Operating profit/(loss)</b>	<b>(590)</b>	<b>(5.5)</b>	<b>(1 479)</b>	<b>(9.8)</b>	<b>(60)</b>

**Net sales**

Discontinued operations net sales decreased by 29% to EUR 10 735 million compared to EUR 15 152 million in 2012. The decline in discontinued operations net sales in 2013 was primarily due to lower Mobile Phones net sales and, to a lesser extent, lower Smart Devices net sales. The decline in Mobile Phones net sales was due to lower volumes and average selling prices, affected by competitive industry dynamics, including intense smartphone competition at increasingly lower price points and intense competition at the low end of our product portfolio. The decline in Smart Devices net sales was primarily due to lower volumes, affected by competitive industry dynamics, including the strong momentum of competing smartphone platforms, as well as our portfolio transition from Symbian products to Lumia products.

The following table sets forth the distribution by geographical area of our net sales for the fiscal years 2013 and 2012.

<b>For the year ended December 31</b>	2013		2012	Year-on-year
	EURm	EURm	EURm	change %
Europe	3 266	4 498		(27)
Middle East & Africa	1 689	2 712		(38)
Greater China	816	1 519		(46)
Asia-Pacific	2 691	3 655		(26)
North America	623	532		17
Latin America	1 650	2 236		(26)



<b>Total</b>	<b>10 735</b>	<b>15 152</b>	<b>(29)</b>
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### **Gross margin**

Discontinued operations gross margin improved to 20.6% in 2013 compared to 18.7% in 2012. The increase in gross margin in 2013 was primarily due to a higher Smart Devices gross margin, partially offset by slightly lower Mobile Phones gross margin. The increase in Smart Devices gross margin was primarily due to lower inventory related allowances, which adversely affected Smart Devices gross margin in 2012.

### **Operating expenses**

Discontinued operations operating expenses were EUR 2 799 million in 2013, compared to EUR 4 311 million in 2012. The 35% decrease in 2013 was due to lower Mobile Phones and Smart Devices operating expenses, primarily due to structural cost savings, as well as overall cost controls.

### **Operating profit/loss**

Discontinued operations operating margin improved to negative 5.5% in 2013 compared to negative 9.8% in 2012. The improvement was primarily due to structural cost savings, as well as overall cost controls, and a higher gross margin.

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Operating and financial review

Results of segments

**Nokia Networks****For the year ended December 31, 2014 compared to the year ended December 31, 2013**

The following table sets forth selective line items and the percentage of net sales that they represent for the years indicated.

	2014		2013		Year-on-year change
	EURm	% of net sales	EURm	% of net sales	%
<b>For the year ended December 31</b>					
<b>Net sales</b>	<b>11 198</b>	<b>100.0</b>	<b>11 282</b>	<b>100.0</b>	<b>(1)</b>
Cost of Sales	(6 862)	(61.3)	(7 148)	(63.4)	(4)
<b>Gross profit</b>	<b>4 336</b>	<b>38.7</b>	<b>4 134</b>	<b>36.6</b>	<b>5</b>
Research and development expenses	(1 786)	(15.9)	(1 822)	(16.1)	(2)
Selling, general and administrative expenses	(1 236)	(11.0)	(1 310)	(11.6)	(6)
Other income and expenses	(104)	(0.9)	(582)	(5.2)	(82)
<b>Operating profit</b>	<b>1 210</b>	<b>10.8</b>	<b>420</b>	<b>3.7</b>	<b>188</b>
<b>Segment information</b>					

<b>For the year ended December 31</b>	<b>Mobile Broadband</b>	<b>Global Services</b>	<b>Nokia Networks</b>	<b>Other</b>	<b>Nokia Networks Total</b>
<b>EURm</b>					
<b>2014</b>					
<b>Net sales</b>	<b>6 039</b>	<b>5 105</b>		<b>54</b>	<b>11 198</b>
Costs and expenses	(5 346)	(4 442)		(96)	(9 884)
Other income and expenses	(10)	(10)		(84)	(104)
<b>Operating profit/(loss)</b>	<b>683</b>	<b>653</b>		<b>(126)</b>	<b>1 210</b>
% of net sales	11.3	12.8		(233.3)	10.8
<b>2013</b>					
<b>Net sales</b>	<b>5 347</b>	<b>5 753</b>		<b>182</b>	<b>11 282</b>
Costs and expenses	(4 927)	(5 060)		(295)	(10 282)
Other income and expenses				(580)	(580)
<b>Operating profit/(loss)</b>	<b>420</b>	<b>693</b>		<b>(693)</b>	<b>420</b>

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% of net sales	7.9	12.0	(380.8)	3.7
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Nokia Networks Other includes net sales and related cost of sales and operating expenses of non-core businesses, IPR net sales and related costs, as well as Nokia Networks Optical business until May 6, 2013, when its divestment was completed. It also includes restructuring and associated charges for Nokia Networks business.

Refer to Note 2, Segment information, of our consolidated financial statements included in this annual report on Form 20-F.

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Results of segments continued

**Net sales**

Nokia Networks net sales in 2014 were EUR 11 198 million, a decrease of EUR 84 million, or 1%, compared to EUR 11 282 million in 2013. The decrease in Nokia Networks net sales was primarily attributable to a decrease in Global Services net sales, and the absence of sales from businesses that were divested and certain customer contracts and countries that were exited in 2013. The decrease was partly offset by an increase in Mobile Broadband net sales.

Mobile Broadband net sales increased to EUR 6 039 million in 2014, or 13% compared to EUR 5 347 million in 2013. The increase was primarily attributable to an increase in net sales in radio and core networking technologies. The increase in radio technologies net sales was primarily attributable to growth in LTE. The increase was partially offset by a decrease in net sales in mature radio technologies.

Global Services net sales decreased to EUR 5 105 million in 2014, or 11%, compared to EUR 5 753 million in 2013. The decrease was primarily attributable to decreases in net sales in network implementation, managed services including the exiting of certain customer contracts and countries, as well as a decrease in the care business line. The decrease was partially offset by an increase in net sales in the systems integration business line.

The following table sets forth the distribution by geographical area of our net sales for the years indicated.

	<b>2014</b>	<b>2013</b>	<b>Year-on-year change</b>
<b>For the year ended December 31</b>	<b>EURm</b>	<b>EURm</b>	<b>%</b>
Europe	2 929	3 041	(4)
Middle East & Africa	1 053	1 111	(5)
Greater China	1 380	1 185	16
Asia-Pacific	3 289	3 354	(2)
North America	1 538	1 334	15
Latin America	1 009	1 257	(20)
<b>Total</b>	<b>11 198</b>	<b>11 282</b>	<b>(1)</b>

Nokia Networks net sales in Latin America decreased 20% in 2014 compared to 2013 primarily due to the exiting of certain customer contracts and lower network deployments in Brazil, Chile and Mexico. In Europe, net sales decreased 4% primarily due to lower network deployments in Western Europe, partially offset by higher network deployments in Eastern Europe. In Asia-Pacific, net sales decreased 2% primarily due to lower network deployments in Japan, partially offset by higher network deployments in India and Korea. In the Middle East and Africa, net sales decreased 5% primarily due to lower network deployments. In Greater China, net sales increased 16% primarily due to higher LTE network deployments. In North America, net sales increased 15% primarily due to LTE network deployments at major customers.

**Gross margin**

Nokia Networks gross margin in 2014 was 38.7%, compared to 36.6% in 2013. The increase in Nokia Networks gross margin was primarily attributable to a higher proportion of Mobile Broadband in the overall sales mix and an increase

in the gross margin of Global Services, partly offset by a slight decrease in the gross margin of Mobile Broadband.

The decrease in the gross margin of Mobile Broadband was primarily attributable to a lower gross margin in mature radio technologies. The decrease was partially offset by a higher gross margin in LTE and core networking technologies. In addition, Mobile Broadband gross margin in 2014 benefitted from lower costs incurred in anticipation of a technology shift to TD-LTE, which adversely affected the gross margin of Mobile Broadband in 2013.

The increase in the gross margin of Global Services was primarily attributable to a more favorable sales mix including a lower proportion of managed services and a higher proportion of systems integration in the sales mix, as well as margin improvement in systems integration. The increase was partially offset by lower gross margin in care, network implementation and network planning and optimization.

### **Operating expenses**

Nokia Networks R&D expenses were EUR 1 786 million in 2014, a decrease of EUR 36 million, or 2%, compared to EUR 1 822 million in 2013. The decrease was primarily attributable to lower subcontracting costs. The decrease was partially offset by headcount increases mainly related to increased in-house activities. Nokia Networks continues to invest in targeted growth areas, most notably LTE, small cells and Telco Cloud, while reducing investments in mature technologies.

Nokia Networks selling, general and administrative expenses were EUR 1 236 million in 2014, a decrease of EUR 74 million, or 6%, compared to EUR 1 310 million in 2013. The decrease was primarily attributable to structural cost savings from Nokia Networks' global restructuring program. The decrease was partially offset by headcount increases related to an increased focus on growth.

Nokia Networks other income and expenses decreased in 2014 to an expense of EUR 104 million from an expense of EUR 582 million in 2013. In 2014, other income and expenses included restructuring and associated charges of EUR 57 million and anticipated contractual remediation costs of EUR 31 million. In 2013, other income and expenses included restructuring and associated charges of EUR 570 million.

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Operating and financial review

**Operating profit/loss**

Nokia Networks operating profit was EUR 1 210 million in 2014, an increase of EUR 790 million compared to an operating profit of EUR 420 million in 2013. Nokia Networks operating margin in 2014 was 10.8% compared to 3.7% in 2013. The increase in operating profit was primarily attributable to an increase in operating profit in Mobile Broadband. The increase was partially offset by a decrease in operating profit in Global Services.

Mobile Broadband operating profit increased from EUR 420 million in 2013 to EUR 683 million in 2014. The increase in operating profit was attributable to higher gross profit.

Global Services operating profit decreased from EUR 693 million in 2013 to EUR 653 million in 2014. The decrease in operating profit was primarily attributable to lower gross profit. The decrease was partially offset by lower operating expenses.

**Strategy and restructuring program**

In November 2011, Nokia Networks announced its strategy to focus on mobile broadband and related services, and also launched an extensive global restructuring program, targeting a reduction of its annualized operating expenses and production overhead, excluding special items and purchase price accounting related items, by EUR 1 billion by the end of 2013, compared to the end of 2011. In January 2013, this target was raised to EUR 1.5 billion, and in July 2013 this target was further raised to more than EUR 1.5 billion. While these savings were expected to come largely from organizational streamlining, the program also targeted 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 2013, Nokia Networks achieved its target to reduce operating expenses and production overhead, excluding special items and purchase price accounting items, by more than EUR 1.5 billion by the end of 2013, compared to the end of 2011.

In 2014, Nokia Networks recognized restructuring and associated charges of EUR 57 million related to this restructuring program, resulting in cumulative charges of approximately EUR 1 900 million. By the end of 2014, Nokia Networks had cumulative restructuring related cash outflows of approximately EUR 1 550 million relating to this restructuring program. Nokia Networks expects the remaining restructuring related cash outflows relating to this restructuring program to be approximately EUR 200 million, the majority of which will be paid over the next two years.

**For the year ended December 31, 2013 compared to the year ended December 31, 2012**

The following table sets forth selective line items and the percentage of net sales that they represent for years indicated.

	2013		2012		Year-on-year
	EURm	% of net sales	EURm	% of net sales	change %
<b>For the year ended December 31</b>					
<b>Net sales</b>	<b>11 282</b>	<b>100.0</b>	<b>13 779</b>	<b>100.0</b>	<b>(18)</b>
Cost of sales	(7 148)	(63.4)	(9 610)	(69.7)	(26)
<b>Gross profit</b>	<b>4 134</b>	<b>36.6</b>	<b>4 169</b>	<b>30.3</b>	<b>(1)</b>
Research and development expenses	(1 822)	(16.1)	(2 046)	(14.8)	(11)
Selling and marketing expenses	(821)	(7.3)	(1 158)	(8.4)	(29)
Administrative and general expenses	(489)	(4.3)	(470)	(3.4)	4
Other income and expenses	(582)	(5.2)	(1 290)	(9.4)	(55)
<b>Operating profit/(loss)</b>	<b>420</b>	<b>3.7</b>	<b>(795)</b>	<b>(5.8)</b>	<b>153</b>

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Results of segments continued

**Segment information**

<b>For the year ended December 31</b>				<b>Nokia Networks</b>
<b>EURm</b>	<b>Mobile Broadband</b>	<b>Global Services</b>	<b>Nokia Networks Other</b>	<b>Total</b>
<b>2013</b>				
Net sales	5 347	5 753	182	11 282
Contribution	420	693	(693)	
% of net sales	7.9	12.0	(381.9)	
Operating profit				420
% of net sales				3.7
<b>2012</b>				
Net Sales	6 043	6 929	807	13 779
Contribution	490	334	(1 619)	
% of net sales	8.1	4.8	(200.6)	
Operating loss				(795)
% of net sales				(5.8)

Nokia Networks Other includes net sales and related cost of sales and operating expenses of non-core businesses, IPR net sales and related costs, as well as Nokia Networks Optical business until May 6, 2013, when its divestment was completed. It also includes restructuring and associated charges for Nokia Networks business.

**Net sales**

Nokia Networks net sales decreased 18% to EUR 11 282 million in 2013, compared to EUR 13 779 million in 2012. The year-on-year decline in Nokia Networks net sales was primarily due to reduced wireless infrastructure deployment activity affecting both Mobile Broadband and Global Services, as well as the divestments of businesses not consistent with its strategic focus, foreign currency fluctuations and the exiting of certain customer contracts and countries.

Mobile Broadband net sales declined 12% to EUR 5 347 million in 2013, compared to EUR 6 043 million in 2012, as declines in WCDMA, CDMA and GSM were partially offset by growth in both FD-LTE and TD-LTE, reflecting the industry shift to 4G technology. Core network sales declined as a result of the customer focus on radio technologies.

Global Services net sales declined 17% to EUR 5 753 million in 2013, compared to EUR 6 929 million in 2012 primarily due to the exiting of certain customer contracts and countries as part of Nokia Networks strategy to focus on more profitable business as well as a decline in network roll-outs in Japan and Europe.

The following table sets forth the distribution by geographical area of net sales for the years indicated.



	<b>2013</b>	<b>2012</b>	<b>Year-on-year change</b>
<b>For the year ended December 31</b>	<b>EURm</b>	<b>EURm</b>	<b>%</b>
Europe	3 041	3 896	(22)
Middle East & Africa	1 111	1 287	(14)
Greater China	1 185	1 278	(7)
Asia-Pacific	3 354	4 347	(23)
North America	1 334	1 294	3
Latin America	1 257	1 677	(25)
<b>Total</b>	<b>11 282</b>	<b>13 779</b>	<b>(18)</b>
<b>Gross margin</b>			

Nokia Networks gross margin was 36.6% in 2013, compared to 30.3% in 2012, driven by improved efficiency in Global Services, an improved product mix with a greater share of higher margin products, and the divestment of less profitable businesses.

In Mobile Broadband, gross margin improved in 2013 driven by an increased software share in the product mix, offset by costs incurred in anticipation of a technology shift to TD-LTE.

In Global Services, gross margin improved significantly in 2013 due to the increase in efficiencies as part of our restructuring program and the exit of certain customer contracts and countries as part of Nokia Networks strategy to focus on more profitable business.

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Operating and financial review

### **Operating expenses**

Nokia Networks R&D expenses decreased 11% year-on-year in 2013 to EUR 1 822 million from EUR 2 046 million in 2012, primarily due to business divestments and reduced investment in business activities not in line with Nokia Networks focused strategy as well as increased R&D efficiency, partially offset by higher investments in business activities that are in line with Nokia Networks focused strategy, most notably LTE.

Nokia Networks sales and marketing expenses decreased 29% year-on-year in 2013 to EUR 821 million from EUR 1 158 million in 2012, primarily due to structural cost savings from Nokia Networks restructuring program and a decrease in purchase price accounting related items arising from the formation of Nokia Networks, which were fully amortized at the end of the first quarter of 2013.

Nokia Networks administrative and general expenses increased 4% year-on-year in 2013 to EUR 489 million from EUR 470 million in 2012, primarily due to consultancy fees related to finance and information technology related projects, partially offset by structural cost savings.

Nokia Networks other income and expenses decreased in 2013 to an expense of EUR 582 million from an expense of EUR 1 290 million in 2012. In 2013, other income and expenses included restructuring charges of EUR 570 million, including EUR 52 million related to country and contract exits and EUR 157 million related to divestments of businesses, and in 2012 included restructuring charges and associated charges of EUR 1 226 million, including EUR 42 million related to country and contract exits, divestment of businesses EUR 50 million, impairment of assets of EUR 2 million, a negative adjustment of EUR 4 million to purchase price allocations related to the final payment from Motorola, as well as amortization of acquired intangible assets of EUR 23 million.

### **Operating profit/loss**

Nokia Networks operating profit in 2013 was EUR 420 million, compared with an operating loss of EUR 795 million in 2012. Nokia Networks operating margin in 2013 was 3.7%, compared with a negative 5.8% in 2012. The increase in operating profit was primarily a result of an increase in the contribution of Global Services and a reduction in costs associated with Nokia Networks transformation, consisting mainly of restructuring charges. Further, the purchase price accounting related items arising from the formation of Nokia Networks were fully amortized at the end of the first quarter of 2013.

The contribution of Mobile Broadband declined from EUR 490 million in 2012 to EUR 420 million in 2013, primarily as a result of lower net sales, which was partially offset by an improved gross margin and a reduction in operating expenses.

The contribution of Global Services increased from EUR 334 million in 2012 to EUR 693 million in 2013, as the increase in gross margin more than compensated for the decline in net sales, and the contribution in 2013 was further supported by a reduction in operating expenses.

### **Strategy and restructuring program**

In November 2011, Nokia Networks announced its strategy to focus on mobile broadband and related services, and also launched an extensive global restructuring program, targeting a reduction of its annualized operating expenses and production overhead, excluding special items and purchase price accounting related items, by EUR 1 billion by the end of 2013, compared to the end of 2011. In January 2013, this target was raised to EUR 1.5 billion, and in July 2013 this target was further raised to more than EUR 1.5 billion. While these savings were expected to come largely from organizational streamlining, the program also targeted 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 2013, Nokia Networks achieved its target to reduce operating expenses and production overhead, excluding special items and purchase price accounting items, by more than EUR 1.5 billion by the end of 2013, compared to the end of 2011.

During 2013, Nokia Networks recognized restructuring charges and other associated items of EUR 550 million related to this restructuring program, resulting in cumulative charges of approximately EUR 1 850 million. By the end of 2013, Nokia Networks had cumulative restructuring related cash outflows of approximately EUR 1 250 million relating to this restructuring program. Nokia Networks expects restructuring related cash outflows to be approximately EUR 450 million for the full year 2014 relating to this restructuring program.

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Results of segments continued

**HERE****For the year ended December 31, 2014 compared to the year ended December 31, 2013**

The following table sets forth selective line items and the percentage of net sales that they represent for the years indicated.

<b>For the year ended December 31</b>	<b>2014</b>	<b>% of net</b>	<b>2013</b>	<b>% of net</b>	<b>Year-on-year</b>
	<b>EURm</b>	<b>sales</b>	<b>EURm</b>	<b>sales</b>	<b>change %</b>
<b>Net sales</b>	<b>970</b>	<b>100.0</b>	<b>914</b>	<b>100.0</b>	<b>6</b>
Cost of sales	(239)	(24.6)	(208)	(22.8)	15
<b>Gross profit</b>	<b>731</b>	<b>75.4</b>	<b>706</b>	<b>77.2</b>	<b>4</b>
Research and development expenses	(545)	(56.2)	(648)	(70.9)	(16)
Selling, general and administrative expenses	(181)	(18.7)	(188)	(20.6)	(4)
Impairment of goodwill	(1 209)	(124.6)			
Other income and expenses	(37)	(3.8)	(24)	(2.6)	54
<b>Operating loss</b>	<b>(1 241)</b>	<b>(127.9)</b>	<b>(154)</b>	<b>(16.8)</b>	<b>706</b>

**Net sales**

HERE net sales in 2014 increased EUR 56 million, or 6%, to EUR 970 million compared to EUR 914 million in 2013. The increase in HERE net sales was primarily attributable to higher net sales to vehicle customers and Microsoft becoming a more significant licensee of HERE's services. The increase was partially offset by lower recognition of revenue to smartphone net sales by our former Devices & Services business and lower net sales to personal navigation device customers, which was consistent with declines in the personal navigation device market.

In 2014, HERE had sales of new vehicle licenses of 13.1 million units, compared to 10.7 million units in 2013, primarily attributable to higher consumer uptake of in-vehicle navigation and higher vehicle sales.

The following table sets forth the distribution by geographical area of net sales for the years indicated.

<b>For the year ended December 31</b>	<b>2014</b>	<b>2013</b>	<b>Year-on-year</b>
	<b>EURm</b>	<b>EURm</b>	<b>change %</b>
Europe	394	384	3
Middle East & Africa	47	57	(18)
Greater China	29	17	71
Asia-Pacific	75	75	0

North America	382	322	19
Latin America	43	59	(27)
<b>Total</b>	<b>970</b>	<b>914</b>	<b>6</b>

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**Table of Contents****Operating and financial review****Gross margin**

HERE gross margin in 2014 was 75.4% compared to 77.2% in 2013. The decrease in HERE gross margin was primarily attributable to certain ongoing expenses that are now recorded as HERE cost of sales, which were previously recorded as cost of sales by our former Devices & Services business.

**Operating expenses**

HERE R&D expenses in 2014 were EUR 545 million, a decrease of EUR 103 million, or 16%, compared to EUR 648 million in 2013. The decrease was primarily attributable to significant purchase price accounting related items of EUR 168 million in 2013 arising from the purchase of NAVTEQ, the majority of which were fully amortized in 2013. The decrease was partially offset by higher investments in targeted growth areas.

HERE selling, general and administrative expenses were EUR 181 million in 2014, a decrease of EUR 7 million, or 4%, compared to EUR 188 million in 2013. The decrease was primarily attributable to purchase price accounting related items in 2013 arising from the purchase of NAVTEQ, the majority of which were fully amortized in 2013.

A goodwill impairment charge of EUR 1 209 million was recorded in the third quarter 2014. The impairment charge was the result of an evaluation of the projected financial performance and net cash flows resulting in reduced net sales projections. The evaluation incorporated the slower than expected increase in net sales directly to consumers, and our plans to curtail our investment in certain higher-risk and longer-term growth opportunities. It also reflected the current assessment of risks related to the growth opportunities that we plan to continue pursuing. Refer to Note 10, Impairment, of our consolidated financial statements included in this annual report on Form 20-F.

HERE other income and expenses increased in 2014 to a net expense of EUR 37 million from a net expense of EUR 24 million in 2013. The increase was primarily attributable to higher charges related to the cost reduction program.

**Operating profit/loss**

HERE operating loss was EUR 1 241 million in 2014, an increase of EUR 1 087 million compared to an operating loss of EUR 154 million in 2013. HERE operating margin in 2014 was negative 127.9% compared to negative 16.8% in 2013. The increase in operating loss was primarily attributable to EUR 1 209 million goodwill impairment charge recorded in the third quarter 2014. Refer to Note 10, Impairment, of our consolidated financial statements included in this annual report on Form 20-F. The charge was partially offset by the absence of significant purchase price accounting related items arising from the purchase of NAVTEQ, the majority of which were fully amortized in 2013.

**Global cost reduction program**

In 2014, Nokia announced the sharpening of the HERE strategy and an adjustment to the related long-range plan. As part of its decision to curtail investments in certain higher risk longer term growth opportunities, HERE initiated a cost reduction program during the fourth quarter 2014. Related to this program, HERE recorded charges of approximately EUR 36 million and had related cash outflows of approximately EUR 12 million in 2014. In total, we estimate the cumulative charges will amount to approximately EUR 36 million and related cash outflows will amount to

approximately EUR 24 million. Changes in estimates regarding the timing or amount of costs to be incurred and associated cash flows may become necessary as the program is being completed.

### For the year ended December 31, 2013 compared to the year ended December 31, 2012

The following table sets forth selective line items and the percentage of net sales that they represent for years indicated.

	<b>2013</b>	<b>% of net</b>	<b>2012</b>	<b>% of net</b>	<b>Year-on-year</b>
<b>For the year ended December 31</b>	<b>EURm</b>	<b>sales</b>	<b>EURm</b>	<b>sales</b>	<b>change</b>
					<b>%</b>
<b>Net sales</b>	<b>914</b>	<b>100.0</b>	<b>1 103</b>	<b>100.0</b>	<b>(17)</b>
Cost of sales	(208)	(22.8)	(228)	(20.7)	(9)
<b>Gross profit</b>	<b>706</b>	<b>77.2</b>	<b>875</b>	<b>79.3</b>	<b>(19)</b>
Research and development expenses	(648)	(70.9)	(883)	(80.0)	(27)
Selling and marketing expenses	(119)	(13.0)	(186)	(16.9)	(36)
Administrative and general expenses	(69)	(7.5)	(77)	(7.0)	(10)
Other income and expenses	(24)	(2.6)	(30)	(2.7)	(20)
<b>Operating loss</b>	<b>(154)</b>	<b>(16.8)</b>	<b>(301)</b>	<b>(27.3)</b>	<b>(49)</b>

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Results of segments continued

**Net sales**

HERE net sales decreased 17% to EUR 914 million in 2013, compared to EUR 1 103 million in 2012. HERE internal net sales decreased 59% to EUR 154 million in 2013, compared to EUR 374 million in 2012. HERE external net sales increased 4% to EUR 760 million in 2013, compared to EUR 729 million in 2012. The year-on-year decline in HERE internal net sales was due to lower recognition of deferred revenue related to our smartphone sales. The year-on-year increase in HERE external net sales in 2013 was primarily due to higher sales to vehicle customers, partially offset by lower sales to personal navigation devices customers. Additionally, HERE net sales were adversely affected by foreign currency fluctuations.

The following table sets forth HERE net sales and year-on-year growth rate by geographic area for the fiscal years 2013 and 2012.

	<b>2013</b>	<b>2012</b>	<b>Year-on-year change</b>
	<b>EURm</b>	<b>EURm</b>	<b>%</b>
<b>For the year ended December 31</b>			
Europe	384	477	(19)
Middle East & Africa	57	74	(23)
Greater China	17	63	(73)
Asia-Pacific	75	82	(9)
North America	322	335	(4)
Latin America	59	72	(18)
<b>Total</b>	<b>914</b>	<b>1 103</b>	<b>(17)</b>
<b>Gross margin</b>			

On a year-on-year basis, the decrease in HERE gross margin, 77.2% in 2013 compared to 79.3% in 2012, was primarily due to proportionally higher sales of update units to vehicle customers, which generally carry a lower gross margin, partially offset by lower costs related to service delivery.

**Operating expenses**

HERE R&D expenses decreased 27% to EUR 648 million in 2013 compared to EUR 883 million in 2012, primarily due to a decrease in purchase price accounting related items, EUR 168 million in 2013 compared to EUR 355 million in 2012, and cost reduction actions.

HERE sales and marketing expenses decreased 36% to EUR 119 million in 2013 compared to EUR 186 million in 2012, primarily driven by a decrease in purchase price accounting items, EUR 11 million in 2013 compared to EUR 68 million in 2012, cost reduction actions and lower marketing spending.

HERE administrative and general expenses decreased 10% to EUR 69 million in 2013 compared to EUR 77 million in 2012, primarily due to cost reduction actions.



In 2013, HERE other income and expense had a slightly positive year-on-year impact on profitability, decreasing from EUR 30 million in 2012 to EUR 24 million in 2013. In 2013, we recognized restructuring charges of EUR 22 million in HERE, compared to EUR 31 million in 2012.

### **Operating profit/loss**

HERE operating loss decreased to EUR 154 million in 2013, compared with a loss of EUR 301 million in 2012. HERE operating margin in 2013 was negative 16.8%, compared with negative 27.3% in 2012. The year-on-year improvement in operating margin in 2013 was driven primarily by the absence of significant purchase price accounting related items arising from the purchase of NAVTEQ, the vast majority of which had been fully amortized as of the end of the second quarter of 2013.

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Operating and financial review

**Nokia Technologies****For the year ended December 31, 2014 compared to the year ended December 31, 2013**

The following table sets forth selective line items and the percentage of net sales that they represent for the years indicated.

	2014		2013		Year-on-year
	EURm	% of net sales	EURm	% of net sales	change %
<b>For the year ended December 31</b>					
<b>Net sales</b>	<b>578</b>	<b>100.0</b>	<b>529</b>	<b>100.0</b>	<b>9</b>
Cost of sales	(8)	(1.4)	(14)	(2.6)	(43)
<b>Gross profit</b>	<b>570</b>	<b>98.6</b>	<b>515</b>	<b>97.4</b>	<b>11</b>
Research and development expenses	(161)	(27.9)	(147)	(27.8)	10
Selling, general and administrative expenses	(65)	(11.2)	(56)	(10.6)	16
Other income and expenses	(1)	(0.2)	(2)	(0.4)	(50)
<b>Operating profit</b>	<b>343</b>	<b>59.3</b>	<b>310</b>	<b>58.6</b>	<b>11</b>

**Net sales**

Nokia Technologies net sales in 2014 were EUR 578 million, an increase of EUR 49 million, or 9%, compared to EUR 529 million in 2013. The increase in Nokia Technologies net sales was primarily attributable to higher intellectual property licensing income from certain licensees, including Microsoft becoming a more significant intellectual property licensee in conjunction with the Sale of the D&S Business. The increase was partially offset by decreases in licensing income from certain other licensees that experienced lower levels of business activity, as well as the lower levels of non-recurring IPR income compared to 2013.

**Gross margin**

Nokia Technologies gross margin in 2014 was 98.6%, compared to 97.4% in 2013. The increase in Nokia Technologies gross margin was primarily attributable to the absence of a one-time cost related to a patent divestment transaction which negatively affected gross margin in 2013.

**Operating expenses**

Nokia Technologies R&D expenses in 2014 were EUR 161 million, an increase of EUR 14 million, or 10%, compared to EUR 147 million in 2013. The increase in R&D expenses was primarily

attributable to investments in business activities, such as building the Technology and Brand licensing units, which target new and significant long-term growth opportunities.

Nokia Technologies selling, general and administrative expenses in 2014 were EUR 65 million, an increase of EUR 9 million, or 16%, compared to EUR 56 million in 2013. The increase in selling, general and administrative expenses was primarily attributable to increased activities, such as building the Technology and Brand licensing units, related to anticipated and ongoing patent licensing cases, as well as higher business support costs.

Nokia Technologies other income and expense in 2014 was a net expense of EUR 1 million, a decrease of EUR 1 million, or 50%, compared to a net expense of EUR 2 million in 2013.

### **Operating profit/loss**

Nokia Technologies operating profit in 2014 was EUR 343 million, an increase of EUR 33 million, or 11%, compared to an operating profit of EUR 310 million in 2013. The increase in operating profit was primarily attributable to an increase in gross profit. The increase was partially offset by higher operating expenses. Nokia Technologies operating margin in 2014 was 59.3% compared to 58.6% in 2013.

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Results of segments continued

**For the year ended December 31, 2013 compared to the year ended December 31, 2012**

The following table sets forth selective line items and the percentage of net sales that they represent for years indicated.

	2013		2012		Year-on-year change %
	EURm	% of net sales	EURm	% of net sales	
<b>For the year ended December 31</b>					
<b>Net sales</b>	<b>529</b>	<b>100.0</b>	<b>534</b>	<b>100.0</b>	<b>(1)</b>
Cost of sales	(14)	(2.6)	(7)	(1.3)	100
<b>Gross profit</b>	<b>515</b>	<b>97.4</b>	<b>527</b>	<b>98.7</b>	<b>(2)</b>
Research and development expenses	(147)	(27.8)	(153)	(28.7)	(4)
Selling and marketing expenses	(34)	(6.4)	(24)	(4.5)	42
Administrative and general expenses	(22)	(4.2)	(22)	(4.1)	
Other income and expenses	(2)	(0.4)	(3)	(0.5)	(33)
<b>Operating profit</b>	<b>310</b>	<b>58.6</b>	<b>325</b>	<b>60.9</b>	<b>(5)</b>

**Net sales**

Nokia Technologies net sales was stable on a year-on-year basis, EUR 529 million in 2013 compared to EUR 534 million in 2012, primarily due to a non-recurring license fee of EUR 50 million in the fourth quarter 2012, partially offset by net increases in royalty payments from our licensees.

**Gross margin**

On a year-on-year basis, the Nokia Technologies gross margin decreased to 97.4% in 2013 compared to 98.7% in 2012.

**Operating expenses**

Nokia Technologies R&D expenses decreased 4% to EUR 147 million in 2013 compared to EUR 153 million in 2012, primarily due to lower R&D costs, partially offset by transaction related costs of EUR 15 million related to the Sale of the D&S Business.

Nokia Technologies sales and marketing expenses increased 42% to EUR 34 million in 2013 compared to EUR 24 million in 2012, primarily due to IPR licensing related litigation expenses. In 2013 sales and marketing expenses included transaction related costs of EUR 2 million related to the Sale of the D&S Business.

Nokia Technologies administrative and general expenses were flat year-on-year, amounting to EUR 22 million.

Nokia Technologies other income and expense was approximately flat year-on-year, and included restructuring charges of EUR 2 million in 2013, compared to EUR 3 million in 2012.

### **Operating profit/loss**

Nokia Technologies operating profit decreased to EUR 310 million in 2013, compared to EUR 325 million in 2012. Nokia Technologies operating margin in 2013 was 58.6%, compared with 60.9% in 2012. The year-on-year decline in operating margin was driven primarily by the transaction related costs of EUR 17 million related to the Sale of the D&S Business partially offset by decreased restructuring charges.

### **Group Common Functions**

#### **For the year ended December 31, 2014 compared to the year ended December 31, 2013**

Group Common Functions operating loss in 2014 was EUR 142 million, an increase of EUR 85 million, or 149%, compared to an operating loss of EUR 57 million in 2013. The increase in operating loss was primarily attributable to the absence of a distribution from an unlisted venture fund related to the disposal of the fund's investment in Waze Ltd of EUR 59 million that benefitted Group Common Functions in 2013. In 2014, Group Common Functions included transaction related costs of EUR 21 million related to the Sale of the D&S Business. In 2013, Group Common Functions included restructuring charges and associated impairments of EUR 10 million, as well as transaction related costs of EUR 18 million related to the Sale of the D&S Business.

#### **For the year ended December 31, 2013 compared to the year ended December 31, 2012**

Group Common Functions operating loss totaled EUR 57 million in 2013, compared to EUR 50 million in 2012. In 2013, Group Common Functions included restructuring charges and associated impairments of EUR 10 million, as well as transaction related costs of EUR 18 million related to the Sale of the D&S Business. In 2013, the Group Common Functions benefitted from a distribution from an unlisted venture fund related to the disposal of the fund's investment in Waze Ltd of EUR 59 million. In 2012, Group Common Functions benefitted from a net gain from sale of real estate of EUR 79 million and included restructuring charges of EUR 6 million.

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Operating and financial review

Liquidity and capital resources

**Financial position**

At December 31, 2014 Nokia's total cash and other liquid assets (defined as the aggregate of 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) equaled EUR 7 715 million, a decrease of EUR 1 256 million, compared to EUR 8 971 million at December 31, 2013. The decrease was primarily attributable to cash outflows from financing activities related to the repayment of certain debt facilities totaling EUR 1 750 million in the first quarter 2014, as well as the redemption of approximately EUR 950 million of Nokia Networks debt in the second quarter 2014. Outflows from financing activities were partly offset by the drivers listed below that increased Nokia's net cash and other liquid assets. At December 31, 2012 Nokia's total cash and other liquid assets equaled EUR 9 909 million.

At December 31, 2014 Nokia's net cash and other liquid assets (defined as total cash and other liquid assets less long-term interest bearing liabilities and short-term borrowings) equaled EUR 5 023 million, an increase of EUR 2 714 million, compared to EUR 2 309 million at December 31, 2013. The increase was primarily attributable to cash proceeds from the Sale of the D&S Business, as well as net cash flow from operating activities. This increase was partially offset by the execution of the capital structure optimization program, which included payment of a dividend and a special dividend, as well as the repurchase of shares. Nokia's net cash and other liquid assets was also adversely impacted by cash outflows related to acquisitions and capital expenditures. At December 31, 2012, Nokia's net cash and other liquid assets equaled EUR 4 360 million.

At December 31, 2014 Nokia's cash and cash equivalents (defined as the aggregate of bank and cash and available-for-sale investments, cash equivalents) equaled EUR 5 170 million, a decrease of EUR 2 463 million, compared to EUR 7 633 million at December 31, 2013. Nokia's cash and cash equivalents equaled EUR 8 952 million at December 31, 2012.

**Cash flow**

In 2014, Nokia's net cash from operating activities equaled EUR 1 275 million, an increase of EUR 1 203 million, as compared to EUR 72 million in 2013. The increase was primarily attributable to EUR 1 214 million net profit, adjusted for non-cash items and a EUR 1 153 million cash release from net working capital. The primary driver for the cash release from net working capital was a EUR 1 650 million cash inflow relating to the upfront payment on a ten-year patent license agreement and related option to extend the license into perpetuity with Microsoft, partially offset by approximately EUR 320 million restructuring related cash outflows in Continuing operations and approximately EUR 210 million net working capital related cash outflows in discontinued operations.

In 2014, Nokia had cash outflows of EUR 1 092 million related to net financial income and expenses and income taxes, an increase of EUR 935 million, as compared to EUR 157 million in 2013. The increase was primarily attributable to the early redemption of Nokia Networks' borrowings of approximately EUR 84 million,

foreign exchange hedging of approximately EUR 180 million and income taxes of EUR 636 million, of which approximately EUR 300 million were cash outflows relating to discontinued operations.

In 2013, Nokia's net cash from operating activities equaled EUR 72 million, an increase of EUR 426 million, as compared to EUR 354 million cash used in operating activities in 2012. The increase was primarily attributable to an increase in profitability and other financial income and expenses, net and a decrease in income taxes paid. The increase was partially offset by an increase in net working capital cash outflows.

In 2014, Nokia's cash flow from investing activities equaled EUR 886 million, an increase of EUR 1 577 million, as compared to EUR 691 million cash used in investing activities in 2013. Cash inflows from investing activities was primarily driven by gross proceeds attributable to the Sale of the D&S Business of approximately EUR 4 010 million, which included the proceeds used to repay the convertible bonds issued to Microsoft and the increase in proceeds from maturities and sale of current available-for-sale investments, liquid assets. The increase was offset by an increase in purchases of current available-for-sale investments, liquid assets. Cash inflows from investing activities also benefitted EUR 44 million from the sale of property, plant and equipment. The increase was partially offset by cash outflows related to capital expenditure of EUR 311 million and acquisitions of EUR 175 million.

In 2014, Nokia's capital expenditure equaled EUR 311 million, a decrease of EUR 96 million, as compared to EUR 407 million in 2013. Nokia's capital expenditure in 2012 equaled EUR 461 million. Major items of capital expenditure in 2014 included production lines, test equipment and computer hardware used primarily in R&D, office and manufacturing facilities as well as services and software related intangible assets.

In 2013, Nokia's cash used in investing activities equaled EUR 691 million, a decrease of EUR 1 253 million, as compared to net cash flow from investing activities of EUR 562 million in 2012. The decrease was primarily attributable to significantly lower proceeds from the sale and maturities of current available-for-sale investments, liquid assets partially, offset by a decrease in purchases of current available-for-sale investments, liquid assets.

In 2014, Nokia's cash flow used in financing activities equaled EUR 4 576 million, an increase of EUR 4 099 million, as compared to EUR 477 million in 2013. Cash outflows from financing activities were primarily attributable to the repayment of EUR 2 791 million in interest-bearing debt, payments of EUR 0.11 per share in dividend totaling EUR 408 million and EUR 0.26 per share in special dividend totaling EUR 966 million, as well as EUR 427 million in cash outflows relating to share repurchases. Nokia also acquired subsidiary shares from a non-controlling interest holder and paid dividends to non-controlling interest holders in 2014 totaling approximately EUR 60 million.

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**Table of Contents****Liquidity and capital resources continued**

In 2013, Nokia's cash flow used in financing activities equaled EUR 477 million, an increase of EUR 12 million as compared to EUR 465 million in 2012. Cash outflows in financing activities were primarily attributable to EUR 1 707 million used to purchase the shares in NSN, EUR 862 million repayment of long-term borrowings, EUR 128 million repayment of short-term borrowings and EUR 71 million payment of dividends, offset by EUR 2 291 million in proceeds from long-term borrowings, which included EUR 1 500 million convertible bonds issued to Microsoft and EUR 450 million and EUR 350 million bonds due in 2018 and in 2020, respectively, issued by Nokia Networks.

**Financial assets and debt**

At December 31, 2014 Nokia's net cash equaled EUR 5 023 million and consisted of EUR 7 715 million in total cash and other liquid assets and EUR 2 692 million of long-term interest bearing liabilities and short-term borrowings.

We hold our cash and other liquid assets predominantly in euro. Our liquid assets are mainly invested in high-quality money market and fixed income instruments with strict maturity limits. Nokia also has a EUR 1 500 million undrawn revolving credit facility available for liquidity purposes.

Nokia's interest-bearing debt consisted of a EUR 750 million convertible bond due in 2017, a EUR 500 million bond due in 2019, a USD 1 000 million bond due in 2019, a USD 500 million bond due in 2039 and EUR 206 million of other liabilities. Refer to Note 35, Risk management, of our consolidated financial statements included in this annual report on Form 20-F for further information regarding our interest-bearing liabilities.

In 2014, Nokia repaid a EUR 1 250 million bond, a EUR 500 million loan from the European Investment Bank (the EIB) and EUR 1 500 million in convertible bonds issued to Microsoft, which were netted against proceeds from the Sale of the D&S Business. In addition, Nokia prepaid all material interest-bearing liabilities related to Nokia Networks, including the EUR 450 million and EUR 350 million bonds due in 2018 and in 2020, respectively, a EUR 88 million Finnish pension loan, a EUR 50 million loan from the EIB, a EUR 16 million loan from Nordic Investment Bank and certain other debt. No new debt was issued in 2014. Nokia has no material debt maturing in 2015.

We believe with EUR 7 715 million cash and other liquid assets as well as a EUR 1 500 million revolving credit facility, we have sufficient funds available to satisfy our future working capital needs, capital expenditure, R&D, acquisitions and debt service requirements at least through 2015. We also believe that with our current credit ratings of BB by Standard & Poor's and Ba2 by Moody's, both with positive outlook, we have access to capital markets should any funding needs arise in 2015. Nokia has a target to re-establish its investment grade credit rating.

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.

**Capital structure optimization program**

As a result of our significantly improved financial position and earnings profile after closing of the Sale of the D&S Business, we announced a EUR 5 billion capital structure optimization program to improve the efficiency of Nokia's



capital structure. The program consists of EUR 3 billion of total cash returns to shareholders through dividends and share repurchases and EUR 2 billion of debt reduction by the end of the second quarter 2016.

In accordance with the capital structure optimization program, Nokia paid EUR 1 374 million in dividends (EUR 0.37 per share) consisting of EUR 408 million (EUR 0.11 per share) of ordinary dividends and EUR 966 million (EUR 0.26 per share) of special dividends in 2014.

Under the EUR 1.25 billion share repurchase program, Nokia repurchased 67 million shares for EUR 427 million in 2014.

In 2014, Nokia reduced interest bearing debt by approximately EUR 950 million after the announcement of the capital structure optimization program.

### **Structured finance**

Structured finance includes customer financing and other third-party financing. Network operators occasionally require their suppliers, including us, to arrange, facilitate or provide long-term financing as a condition for obtaining infrastructure projects.

At December 31, 2014 our total customer financing, outstanding and committed equaled EUR 156 million, an increase of EUR 92 million, as compared to EUR 64 million in 2013. At December 31, 2012, our total customer financing, outstanding and committed amounted to EUR 108 million. Customer financing primarily consisted of financing commitments to network operators.

Refer to Note 35, Risk management, of our consolidated financial statements included in this annual report on Form 20-F for further information relating to our committed and outstanding customer financing.

We expect our customer financing commitments to be financed mainly from cash and other liquid assets and through cash flow from operations.

At December 31, 2014 guarantees of Nokia's performance consisted of EUR 465 million of guarantees that are provided to certain Nokia Networks' customers in the form of bank guarantees, or corporate guarantees issued by Nokia Networks. These instruments entitle the customer to claim payments as compensation for non-performance by Nokia Networks of its obligations under network infrastructure supply agreements. Depending on the nature of the instrument, compensation is payable either on demand, or is subject to verification of non-performance.

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Financial guarantees and securities pledged that we may give on behalf of customers, represent guarantees relating to payment by certain Nokia Networks customers and other third parties under specified loan facilities between such customers 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.

Refer to Note 30, Commitments and contingencies, of our consolidated financial statements included in this annual report on Form 20-F for further information regarding commitments and contingencies.

**Venture fund investments and commitments**

We make financing commitments to a number of venture funds that make technology related investments. The majority of the investments are managed by Nokia Growth Partners that specializes in growth-stage investing, seeking companies that are changing the face of mobility and connectivity.

At December 31, 2014 the fair value of our venture fund investments equaled EUR 778 million, as compared to EUR 627 million at December 31, 2013. Refer to note 19, Fair value of financial instruments, of our consolidated financial statements included in this annual report on Form 20-F for further information regarding fair value of our venture fund investments.

At December 31, 2014 our venture fund commitments equaled EUR 274 million, as compared to EUR 215 million at December 31, 2013. As a limited partner in venture funds, Nokia is committed to capital contributions and entitled to cash distributions according to the respective partnership agreements and underlying fund activities. Refer to Note 30, Commitments and contingencies, of our consolidated financial statements included in this annual report on Form 20-F for further information regarding commitments and contingencies.

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Main events in 2014

### **Nokia Corporation and Group highlights**

• In April 2014, Nokia completed the Sale of the D&S Business. The transaction, which also included an agreement to license patents to Microsoft, was originally announced on September 3, 2013. In connection with the completion of the transaction, Nokia repaid the EUR 1.5 billion convertible bonds issued by Nokia to Microsoft.

• Following the completion of the transaction, Nokia made a number of announcements, including the following:

The Board appointed Rajeev Suri as President and CEO of Nokia Corporation and the new Nokia Group Leadership Team, effective May 1, 2014. For more information on the changes in Nokia's leadership during 2014, refer to "Board of Directors and management Changes in Nokia Group Leadership" below.

Nokia announced its new strategy building on Nokia's three businesses: Nokia Networks, HERE and Nokia Technologies.

Nokia announced plans for a EUR 5 billion capital structure optimization program focused on recommencing dividend payments, distributing excess capital to shareholders, and reducing interest-bearing debt. Later in the second quarter 2014, as part of this program and its debt reduction plan, Nokia redeemed approximately EUR 950 million of Nokia Networks debt, which included EUR 800 million of senior notes issued by Nokia Solutions and Networks Finance B.V., the finance company of its Nokia Networks business.

• In May 2014, Nokia's credit rating was upgraded by credit rating agencies Moody's and Standard & Poor's, supporting Nokia's long-term target to re-establish its investment grade credit rating. Standard & Poor's upgraded Nokia's rating to BB from B+, with a positive outlook, and Moody's upgraded Nokia's rating to Ba2 from B1 and added a positive outlook in November 2014.

• In May 2014, Nokia launched a USD 100 million Connected Car Fund managed by Nokia Growth Partners, its venture capital arm. The fund will identify and invest in companies whose innovations are deemed important for a world of connected and intelligent vehicles. The fund, working closely with Nokia's HERE business, will seek to make investments that also support the growth of the ecosystem around HERE's mapping and location products and services.

- ; Nokia's Annual General Meeting, which was held on June 17, 2014, resolved to distribute an ordinary dividend of EUR 0.11 per share for year 2013 and a special dividend of EUR 0.26 per share.
  
- ; In June 2014, Nokia ranked sixth in Interbrand's annual Best Global Green Brands report for 2014, measuring the environmental sustainability performance of leading global brands.
  
- ; In September 2014, Nokia returned to the EURO STOXX 50 Index.
  
- ; In October 2014, Nokia was recognized in the Climate Performance Leadership Index 2014 by the Carbon Disclosure Project (CDP) for corporate action on climate change.
  
- ; In November 2014, Nokia held its Capital Markets Day event in London, United Kingdom, where the company shared its updated vision, strategic priorities and long-term financial targets.
- ; Effective on January 2, 2014, one of Nokia's Finnish subsidiaries, Nokia Asset Management Oy, merged into Nokia Corporation.

#### **Innovations for more efficient networks**

Our next generation technology innovations are designed to help operators carry more data in their networks and dramatically reduce their costs as, after cash they improve network efficiency and make better use of existing capacity.

Nokia announced its new strategy building on Nokia's three businesses: Nokia Networks, HERE and Nokia Technologies.

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Operating and financial review

**Nokia Networks operating highlights**

- Nokia Networks added significant commercial mobile broadband and services contracts during 2014, including: a contract with the world's largest wireless operator, China Mobile, for the build-out of the operator's TD-LTE network; a contract with T-Mobile USA for LTE-Advanced equipment and related services for its nationwide LTE network; a five-year contract with Vodafone in the operator's Project Spring network upgrade; a contract on the expansion of Everything Everywhere's LTE network in the United Kingdom; a three-year contract with Telefónica in Spain for LTE radio access equipment and professional services; and a five-year contract with Elisa in Finland as the sole supplier of the operator's LTE network.
- At the end of 2014, Nokia Networks had 162 commercial LTE contracts and was a key LTE radio network supplier to 15 of the world's top 20 LTE operators.
- Nokia Networks also added a large number of other mobile broadband contracts including two 3G networks and services contracts in India.
- Nokia Networks continued to show leadership in 4G radio technology, demonstrating a throughput speed of almost 4Gbps with SK Telecom in the Republic of Korea and a speed of 2.6Gbps over a single sector in Sprint's TD-LTE network. Nokia Networks was the first in the world to trial LTE for national TV broadcasting in Germany and enhanced its LTE portfolio with a number of product launches, including the world's first 3.5GHz carrier aggregation capable radio and a solution to smoothly migrate WiMAX networks to TD-LTE-Advanced and a LTE-A 3 carrier aggregation solution to support a throughput speed of up to 450Mbps ready by the time commercial devices start to ship.
- Nokia Networks continued to invest in innovation and further evolved the Nokia Smart Scheduler in its LTE base stations which are now able to provide up to 30% faster downlink speeds at the cell edge; announced new Centralized RAN software capable of doubling the uplink capacity of existing LTE networks by linking together multiple base stations and turning the interference into useful traffic; launched new Single RAN Advanced features; and added new software features to its Liquid Radio Software Suite.
- In the area of small cells, Nokia Networks extended its Flexi Zone architecture, making it the small cell solution for all deployment scenarios, including indoor deployments; introduced new innovations to its small cell portfolio such as the double-capacity small cell base station Flexi Zone G2 Pico and an indoor planning service enhanced by 3-D geolocation-based HetNet planning for in-building solutions.

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Nokia Networks renewed managed services contracts with Saudi Telecom Company, Etisalat Nigeria and Mobily (Etihad Etisalat Company) of Saudi Arabia.

- Nokia Networks and NTT DoCoMo Inc. agreed to collaborate on research and standardization of 5G technologies and to jointly work on a 5G proof-of-concept system; and Nokia Networks hosted the first Brooklyn 5G Summit together with the NYU Wireless Research Center.
  
- Nokia Networks and HP announced the intention to extend their existing partnership to provide telco operators with an integrated Telco Cloud solution compliant with ETSI NFV principles. The cooperation extends beyond hardware and software to encompass the technical, services and commercial capabilities needed to deliver, maintain and operate a Telco Cloud. Nokia Networks also announced an expansion of its long-term partnerships with Juniper and RedHat to advance Telco Cloud for mobile broadband. NTT DoCoMo completed proof-of-concept trials that verified the feasibility of NFV using the software and equipment of Nokia Networks, and with MTS in Russia, Nokia carried out the first voice over LTE call on a Telco Cloud infrastructure using the LTE radio network with Telco Cloud based voice core network technology and Nokia's Professional Services.
  
- Nokia Networks created a new partnering unit to focus on growing a robust ecosystem with partners. The unit will ensure that Nokia Networks is able to leverage partner solutions to complement its own portfolio and open up specific interfaces to embed partner products seamlessly into Nokia's mobile broadband portfolio.
  
- Nokia Networks opened its mobile broadband security center in Berlin, Germany. The Center is a hub of leading expertise focused on creating robust telco security. Equipped with its own fully-operational LTE test network, the Center provides a fully-operational LTE test network platform for co-operating with mobile network operators, partners, governments and academic institutes to develop and share network security know-how and expertise and to help operators fight the growing security threats to their networks.

#### **Nokia Networks Global Services**

By the end of 2014 Nokia Networks Global Services had delivered and optimized more than 21 000 new LTE sites and upgraded over 18 000 2G/3G sites for T-Mobile USA. In peak time over 1 000 sites were delivered per month, while keeping the customer experience on existing or improved levels.

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## Main events in 2014 continued

- ; Nokia Networks won a number of industry awards in 2014, including the top prize in the Best Mobile Infrastructure category at the GSMA Global Mobile Awards 2014 where Nokia Networks and O2 (Telefónica UK) were recognized for the deployment of iSON Automation for Operations solution. The solution was also given the Global Telecoms Business Innovation Award 2014. Other industry awards in 2014 included the Leading Lights Award for Centralized RAN solution and the Pipeline 2014 COMET Innovation Award for FlexiZone small cell solution, Telecommunication Development Industry Alliance recognition of Nokia's contribution to time division ( TD ) technology, Global TD-LTE Initiative award for Liquid Applications and the Economic Times Telecom Awards 2014 for innovation in Managed Services with its Predictive Operations Solution.
- ; Nokia Networks completed the acquisition of SAC Wireless, a premier self-performing provider of infrastructure and network deployment solutions; and the acquisition of the Australian company Mesaplexx Pt Ltd and its compact, high-performance radio frequency filter technology that can be used to decrease the size of a radio base station.
- ; Shortly after the end of 2014, Nokia Networks completed the acquisition of Panasonic's wireless network business. The acquisition was first announced in July 2014.

**HERE operating highlights**

- ; During 2014, HERE made agreements with several new and existing customers for the supply of map content and data, including government departments and agencies, leading B2B and consumer-focused enterprises and major automotive companies. In November 2014, HERE announced that most of the leading carmakers have included its map data in their 2015 models, demonstrating that it is well-positioned for the future developments within the automotive segment, which represents the majority of its revenues.
- ; HERE continued to invest in its map-building capabilities to further enhance the quality of its automotive grade maps. These investments included the further expansion of its fleet of advanced data collection vehicles and an increase in the usage of automation tools which complement the work of its extensive network of highly-trained geographic analysts.
- ; HERE continued to grow the usage of its leading location platform during 2014, supported by new customers, such as Honda and Volvo. By the end of 2014, HERE also provided platform services to Amazon, BMW, Daimler, Digicore, Garmin, Microsoft, Oracle, PTV Group, Rand McNally, SAP, Toyota and Yahoo!
- ; HERE Traffic, which is HERE's real-time traffic data offering, was available in 44 countries at the end of 2014.

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HERE continued to bring in new talent, expertise and capabilities to support its strategy. This included the acquisition of Medio Systems Inc, a Seattle-based company that is a pioneer in the emerging field of real-time predictive analytics.

- HERE and Continental Corporation intensified their collaboration in connected driver services. The two companies work focuses on Electronic Horizon, future Automated Driving functionalities and Intelligent Transportation Systems. As part of the partnership, HERE is in the first phase of delivering a lane-specific road model with precision, far beyond any existing digital infotainment map standard, along with highly accurate, precisely located road information, such as speed limit or no passing signs, lane connectivity and other lane markings. In the future, we believe by using this information, all types of vehicles will be able to comfortably and automatically react to shifting circumstances, such as changing speed limits. Continental will also benefit from HERE's unique location cloud assets.
- HERE was recognized by global research and consulting firm Frost & Sullivan as a trailblazer in developing connected vehicle technology.
- HERE formed a licensing agreement with Samsung to bring its maps and location platform services to Tizen powered smart devices by Samsung, including the newly-announced Samsung Gear S. In addition, HERE developed a companion application for the Android-based Samsung Galaxy family of products called HERE (beta), which was made available in Samsung's application store. HERE also later made its Android beta app available for all compatible Android smartphones and made it available for download through Google Play.

6th

In Interbrand's annual Best Global Green Brands report for 2014

\$100m

Connected Car Fund to identify and invest in companies whose innovations are deemed important for a world of connected and intelligent vehicles

44 countries

Have access to HERE Traffic, which is HERE's real-time traffic data offering

Nokia Networks created a new partnering unit to focus on growing a robust ecosystem with partners and leverage partner solutions to complement its own portfolio.



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**Nokia Technologies operating highlights**

- In February 2014, Nokia and HTC settled all pending patent litigations between them, and entered into a patent and technology collaboration agreement. HTC is making payments to Nokia and the collaboration involves HTC's LTE patent portfolio, further strengthening Nokia's licensing offering. The companies also announced that they are exploring future technology collaboration opportunities.
- In June 2014, Nokia Technologies released the Z Launcher application as a limited pre-beta version as part of its continued exploration of innovations for use in potential future services. Z Launcher replaces the existing home screen on Android smartphones and surfaces apps, contacts and websites based on usage and other contextual factors.
- Also in the second quarter, Nokia Technologies developed a proof-of-concept flexible printed grapheme circuit, demonstrating continued progress solving many of the technical challenges related to the practical application of the ultra-thin, transparent, flexible material.
- During the third quarter, the 3rd Generation Partnership Project ( 3GPP ) selected the Enhanced Voice Service ( EVS ) codec. Nokia contributed multi-year R&D of speech codec reference software to the standard specifications, achieving excellent listening results during testing.
- In November 2014, Nokia announced the launch of Nokia N1, the first Nokia-branded Android tablet and the company's first brand-licensed consumer device following the Sale of the D&S Business. Shortly after the end of 2014, Nokia's original equipment manufacturer ( OEM ) partner began selling the Nokia N1 Android tablet in the first quarter 2015 in China, with other markets to follow.
- Later in the fourth quarter, the H.265 (HEVC High Efficiency Video Coding) video coding technology standard Version 2 was finalized in ISO/IEC and ITU-T, including the range, multiview and scalable video codec extensions. 3GPP Release 12 now includes support for H.265, providing a solution for highly efficient delivery of download, streaming and conversational video services. Nokia has contributed significantly to the development of the H.265 standard.

**Spending less time in traffic**

Predictive Traffic, launched in 2014, uses over 100 traffic behavior profiles per road segment combined with real-time road conditions to provide up-to-the-minute traffic forecasts. Drivers using the service saw estimated arrival times up to 20% more accurate for journeys over 30 minutes.

In November 2014, Nokia announced the launch of Nokia N1, the first Nokia-branded Android tablet and the company's first brand-licensed consumer device following the Sale of the D&S Business.

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### Sustainability and corporate responsibility at Nokia

In this section we cover the ethical, socio-economic and environmental areas from 2014, which we defined as most material to our business and our stakeholders.

At Nokia, we want to be proud, not only of what we achieve but also how we achieve it. We are committed to valuing and respecting both people and our planet in everything we do and believe that by engaging others and doing things together we can achieve a significantly larger impact.

The basic principles of our sustainability work are:

- ı respecting people in everything we do;
  
- ı protecting the environment;
  
- ı improving people's lives with technology; and
  
- ı making change happen together.

Within the guidance of these principles, we maintain programs that help us promote environmental and social sustainability. By embedding the actual processes and activities supporting sustainable development in various functions, sustainability ultimately becomes a vital part of everyone's job at Nokia.

#### **Respecting people in everything we do**

Our goal is to create an organization where ethical business practice and workforce diversity are a source of pride and employees have a safe and motivating working environment.

The Nokia Code of Conduct sets out our commitment to upholding high ethical standards wherever we operate. We train our employees on ethical business conduct on an annual basis, and any concerns can and should be reported, anonymously if required, through established reporting channels. The reported ethical concerns are investigated thoroughly by our Ethics and Compliance Office.

We welcome men and women of different cultural or ethnic backgrounds and in 2014 we employed at least 130 different nationalities. At December 31, 2014 the Nokia Group Leadership Team included members from the following countries: Singapore, Canada, United Kingdom, United States and Finland, and 13% of the senior management positions within Nokia were held by women. Employees of non-Finnish nationality held 72% of the senior management positions.

The health, safety and well-being of our employees and our contractors is pivotal to how we conduct business. The Nokia Code of Conduct also sets the standard for labor conditions and we have a comprehensive set of global human resources employment policies in place to ensure fair employment. Our health and safety management system is certified in accordance with the international management standard OHSAS 18001, which ensures that Nokia has a risk-based approach to managing the safety of employees and contractors.

We believe communication networks also have an important role in promoting human rights by enabling freedom of expression, access to information, exchange of ideas and driving economic development. As a provider of technologies and services that fuel our information society, we recognize our responsibility in

helping to further the good that such technologies and services are used to respect, and not infringe, human rights. This commitment is reinforced in our Human Rights Policy, which underpins our commitment to help prevent potential misuse of our products and services in issues related to freedom of expression and privacy. In 2014, we provided training to our employees on human rights through ethical business training programs and we arranged separate training sessions for selected customer teams.

### **Protecting the environment**

Our environmental work focuses on minimizing the potential adverse impact of our businesses and operations, and is based on global principles and standards that we integrate in our activities.

The most important areas of our environmental work, based on the extent of their impact on the environment and our ability to manage them, originate from our Nokia Networks business. Our priority is to design products and services that help telecommunications operators reduce the environmental impact of their networks. In addition, we aim to continuously minimize the environmental impact of our own operations in each of our businesses. Nokia Networks environmental management system ( EMS ) helps us monitor progress and identify ways to further improve in environmental matters and is ISO 14001 certified. As an example of our progress in 2014, by increasing the share of the box on pallets product delivery method (where boxes are loaded directly onto pallets without any additional container), we were able to reduce the usage of packaging material. This change also increased packaging density which in turn decreased the CO<sub>2</sub> emissions and costs in these particular deliveries.

50%

Of the electricity we used in 2014 came from renewable sources

At least 130

different nationalities worked for Nokia in 2014

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### **Improving people's lives with technology**

We believe our technologies are uniquely positioned to drive social and economic progress, while simultaneously helping to reduce the environmental impact of many industries.

In addition to being a global leader in the mapping and location intelligence business, HERE helps create more inclusive, sustainable and efficient cities through technology. By working with diverse stakeholders, from the chemical sector to consultancies and regional governments, the company helps define collaboration opportunities to combine information and communications technology ( ICT ), energy and transport management to create innovative solutions for the major environmental, social and health challenges facing cities. In 2014, HERE continued to power smarter logistics, safer and more efficient journeys and reducing emissions through advanced traffic and navigation products and services.

Billions of people are connected through our networks. Mobile technology plays a fundamental role in giving people a voice and access to knowledge, information and education. In 2014, Nokia started a three-year global partnership with Save the Children to help improve children's access to education and learning through the use of technology in Myanmar. Additionally, Nokia and Save the Children announced an aim of improving children's and their communities' capacity to survive in case of a disaster through disaster risk reduction and social protection in both India and Myanmar.

### **Making change happen together**

We find that cooperation is often the most effective way to approach sustainability issues.

We expect our suppliers to meet the high ethical, labor and environmental standards set out in our Supplier Requirements before we will work with them. We conduct regular and robust assessments to monitor this compliance, and work with suppliers to improve performance where needed. In 2014, we conducted 155 supplier audits or assessments on Corporate Responsibility, and assessed 141 suppliers specifically on their climate change impacts. We also arranged four training workshops for suppliers operating in high-risk countries to raise their awareness of different elements of our Supplier Requirements including labor conditions and due diligence on conflict minerals and to improve their capacity to meet these standards. We also filed our first conflict minerals report, where we have fully disclosed our smelter list and conflict-free sourcing related key performance indicators. The report is available on our website at [company.nokia.com/en/about-us/people-planet](http://company.nokia.com/en/about-us/people-planet).

We work together with various organizations that drive sustainable development and participate in public policy development initiatives on a global scale. In 2014, we participated in the United Nations Global Compact, Global e-Sustainability Initiative, Carbon Disclosure Project, the Telecommunications Industry Dialogue, Climate Leadership Council, Digital Europe as well as several standardization and University cooperation groups. We also worked with non-governmental organizations such as Save the Children, Plan, Oxfam and WWF.

### **Reporting on our performance**

For over a decade, we have provided detailed reports on our progress in sustainability and corporate responsibility. The reports are available on our website at [www.nokia.com/people&planet](http://www.nokia.com/people&planet).

We are also evaluated by a number of external parties. For instance, in 2014, Nokia was ranked sixth in Interbrand's Best Global Green Brands report and received top ratings for its climate performance and disclosure in the CDP Climate Change Report.

## Employees

The average number of employees in Continuing operations in 2014 was 57 566 (59 333 in 2013 and 71 808 in 2012). At December 31, 2014 Continuing operations had a total of 61 656 employees (55 244 employees on December 31, 2013 and 65 547 employees on December 31, 2012). The total amount of wages and salaries paid in Continuing operations in 2014 was EUR 3 215 million (EUR 3 432 million in 2013 and EUR 4 295 million in 2012).

The table below shows the average number of employees in 2014 divided according to their business and geographical location:

<b>Business</b>	<b>Average number of employees</b>
Nokia Networks	50 680
HERE	6 067
Nokia Technologies <sup>(1)</sup>	819
<b>Total</b>	<b>57 566</b>
<b>Region</b>	<b>Average number of employees</b>
Finland	6 855
Other European countries	15 523
Middle East & Africa	2 482
China	8 608
Asia-Pacific	15 838
North America	5 136
Latin America	3 124
<b>Total</b>	<b>57 566</b>

## Co-operation with Save the Children

In 2014, Nokia and Save the Children joined forces to promote children's rights.

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Shares and share capital

Nokia has one class of shares. Each Nokia share entitles the holder to one vote at general meetings of Nokia.

On December 31, 2014 the total number of Nokia shares was 3 745 044 246 and Nokia's share capital equaled EUR 245 896 461.96. On December 31, 2014 Nokia and its subsidiary companies owned a total of 96 900 800 Nokia shares, which represented approximately 2.6% of the total number of the shares and voting rights of the company.

In 2014, Nokia did not cancel any shares.

In 2014, under the authorization held by the Board and in line with the capital structure optimization program, Nokia repurchased a total of 66 903 682 shares, which represented approximately 1.8% of the total number of shares and voting rights on December 31, 2014. The price paid for the shares was based on the current market price of the Nokia share on the securities market at the time of the repurchase. As expected, the repurchased shares were cancelled, effective as of February 4, 2015.

In 2014, Nokia issued 49 904 new shares upon the exercise of stock options issued to personnel. The shares were issued in accordance with the Nokia Stock Option Plan 2011, approved by the Annual General Meeting on May 3, 2011. The issuance of new shares did not impact the amount of share capital of the company. The issuance of shares did not have any significant effect on the relative holdings of the other Nokia shareholders nor on their voting rights.

In 2014, under the authorization held by the Board, Nokia transferred a total of 2 570 499 Nokia shares held by it as settlement under Nokia equity plans to the plan participants and personnel of the Nokia Group, including certain Nokia Group Leadership Team members. The shares were transferred free of charge and the amount of shares represented approximately 0.07% of the total number of shares and voting rights on December 31, 2014. The issuance of shares did not have any significant effect on the relative holdings of the other Nokia shareholders nor on their voting rights.

Information on the authorizations held by the Board in 2014 to issue shares and special rights entitling to shares, transfer shares and repurchase own shares, as well as information on related party transactions, the shareholders, stock options, shareholders' equity per share, dividend yield, price per earnings ratio, share prices, market capitalization, share turnover and average number of shares are available in the Compensation of the Board of Directors and the Nokia Group Leadership Team, Financial Statements and General facts on Nokia Shares and shareholders sections.

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Dividend

The Board proposes a dividend of EUR 0.14 per share for 2014.

The proposed dividend is in line with our capital structure optimization program.

We distribute retained earnings, if any, within the limits set by the Finnish Companies Act (as defined below). 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 conditions.

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 the Board. 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 a certain minimum distribution, the distribution may not exceed the amount proposed by the Board.



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### 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, costs, expenses, liquidity, 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 and refer to Continuing operations. We describe the risks that affect the Nokia Group or are relevant to all Nokia businesses at the beginning of this section and provide information on additional risks that are primarily related to the individual Nokia business: Nokia Networks, HERE and Nokia Technologies, and are detailed separately under their respective headings below. This annual report on Form 20-F also contains forward-looking statements that involve risks and uncertainties presented in Forward-looking statements above.

### **Risks relating to Nokia**

**Nokia's strategy to be a leader in technologies of the Programmable World, which is subject to various risks and uncertainties, including that Nokia may not be able to sustain or improve the operational and financial performance of its businesses or that Nokia may not be able to correctly identify or successfully pursue business opportunities.**

Nokia announced its strategy in April 2014, which is to become a technology leader in the Programmable World and has since then endeavored to implement its strategy. Refer to Business overview Nokia's strategy for more information on our strategy. This strategy, including continued investments into our businesses or new business opportunities that we may pursue, may not yield a return on investment as planned or at all. Our ability to achieve our strategic goals and targets is subject to uncertainties and contingencies, some of which are beyond our control, and there can be no assurance that we will be able to achieve the goals or targets that we set. We also continue to target further improvement in our operations going forward, with a focus on efficiencies through automation and disciplined processes. There can be no assurances that our efforts will generate the expected results or improvements to our operations or that we will achieve any other of our financial objectives.

We operate in fast-paced and innovative industries and the opportunities we target may require significant investments in innovation in order to grow our businesses profitably or to achieve other targeted benefits. Such investments may include R&D, licensing arrangements, acquiring businesses and technologies, recruiting specialized expertise and partnering with third parties. These investments, however, may not result in technologies, products or services that achieve or retain broad or timely market acceptance or are preferred by our customers and consumers or that we may otherwise utilize for value creation. As such, the investments may not be profitable or achieve the targeted rates of return. There can also be no assurance that we will be able to identify and understand the key market trends and user segments that enable us to address customers' and consumers' expanding needs in order to bring new innovative and

competitive products and services to market in a timely manner. If we are unable to anticipate and respond to these key market trends in a timely

manner, or to actively drive future trends, through our product and services development processes, we may not achieve the intended goals of our strategies, which may materially and adversely affect our business, financial condition and results of operations.

We may invest in certain new technologies, including investments in market exploration of connectivity solutions capable of handling very large numbers of devices and exponential increases in data traffic, innovation in the Internet of Things, location services that seamlessly bridge between the real and virtual worlds and innovation, including in sensing, radio and low power technologies. Additionally, we continuously seek new business models. Certain of our competitors have significant resources to invest in market exploration and may seek new monetization models or drive industry development and capture value in areas where we are not equally competitive. Those areas can be, for instance, monetization models linked to the use of advertising, large amounts of consumer data, large connected communities, solutions for the automotive market, home or other entertainment services and alternative payment mechanisms. Additionally, we intend to use our innovation and intellectual property assets through, for instance, the expansion of our patent licensing, technology licensing and licensing of the Nokia brand. We may not have sufficient resources to compete in these areas, which may prove to be a competitive disadvantage for us in the future. If we fail in these aspects of our strategy, we may not be able to realize an expected return on our investments or may incur operating losses and impair our competitiveness for the longer term. We have also in the past made, and may in the future make, such investments through acquisitions. We may, however, fail to successfully complete planned acquisitions or integrate the acquired businesses or assets in order to obtain intended benefits, or retain and motivate acquired key employees, or the acquired businesses may have various liabilities that we assume knowingly or unknowingly, which may have a material adverse effect on our businesses.

In addition to the risks set out above, we may not realize the intended benefits of our strategies due to a number of reasons, including but not limited to:

• the execution of our strategy fails or is slower than anticipated, for example, due to a lack of strategic clarity;

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- we have based our strategic choices on expectations or developments that do not materialize as expected or at all, such as those related to market or technological developments, or regulatory matters, such as those related to technical standards that hinder our ability to complete our planned strategies;
- we fail to effectively invest in the right areas of our businesses or invest in areas that do not deliver intended results or our evaluation of the prospects with respect to our businesses do not materialize as planned;
- our strategy or its implementation causes a disruption in our business operations or results in reduced performance of the businesses;
- failures in cloud or remote delivery-based business models and operations that have certain inherent risks, including those stemming from the potential security breaches and applicable regulatory regimes, may cause limitations to the implementation of cloud or remote delivery-based models or expose us to regulatory or contractual actions or limit our ability to conduct intended business;
- we lose key employees or are unable to recruit, retain or motivate key executives or employees needed to effectively manage or run our businesses, for example, as a result of dissatisfaction with our strategic direction, uncertainty about our businesses or prospects, or failures in implementing successful compensation arrangements;
- our product, service and business portfolio results in an over-reliance on certain industries, which materially exposes our business and results of operations to certain industry-related market trends that are beyond our control, such as the availability of competing services at lower cost or free of charge;
- the deterioration of Nokia's brand or reputation due to Nokia's reduced position in the consumer electronics industry, or for instance through actions of other parties licensing the Nokia brand or issues with our partners including our supply chain. Any such deterioration to the Nokia brand or reputation may have a materially adverse effect on our businesses and our ability to utilize the Nokia brand going forward;
- the focus of our management or other key employees is diverted from their day-to-day business responsibilities due to changes in Nokia's organizational structure and business model or we experience gaps in required competences, especially with respect to new business areas that we may target. In addition, our management or other key employees may focus excessively on certain areas of our businesses, which in turn results in suboptimal performance of our other businesses;

- ⌋ we are unable to implement and maintain an efficient corporate and operational structure for Nokia going forward or our evaluation of the prospects with respect to the shared opportunities between our Continuing operations do not materialize as expected;
- ⌋ we are unable to implement certain required new capabilities, such as data analytics skills required for certain business areas that involve processing large amounts of data;
- ⌋ we or our business partners may fail in successfully marketing our products and services, especially with respect to new product and service areas;
- ⌋ adverse effects on Nokia or its customer relationships due to speculation about Nokia strategy or the future prospects of its businesses; and
- ⌋ by completing the Sale of the D&S Business, our engagement in the manufacturing and sale of mobile phones and smartphones has ceased in accordance with the Devices & Services Purchase Agreement and as such we have a less diversified product and services offering and may lose relevance to customers and consumers that have associated Nokia with the Devices and Services business. Additionally, the Sale of the D&S Business may have resulted in inefficiencies in our corporate or operational structure or gaps in resourcing or capabilities due to the transfer of significant amounts of employees, assets, contracts and legal entities to Microsoft.

**We may be adversely affected by general economic and market conditions.**

As we are a company with global operations and sales in many countries around the world, our sales and profitability are dependent on general economic conditions both globally and regionally, as well as industry and market developments in numerous diverse markets. Adverse developments in, or the general weakness of, the economy, particularly through increasing levels of unemployment in the markets in which our customers operate, may have a direct adverse impact on the spending patterns of end-users. This in turn may affect both the services they subscribe to and usage levels of such services, which may lead to mobile operators and service providers investing in related infrastructure and services less than anticipated, which could have a material adverse effect on our businesses.

Nokia Networks sales and profitability are dependent on the development of the mobile broadband infrastructure industry in numerous diverse markets, particularly the investments made by mobile operators and services providers in network infrastructure and related services. The pace of such investments is in turn dependent on the ability of network providers and mobile operators to increase subscriber numbers, reduce churn, compete with business models eroding the revenue from the traditional voice, messaging and data transport services, stimulate increased use of voice, data and value-adding services with higher margins, as well as the financial condition of the network providers and mobile. Additionally, market developments favoring new technological solutions such as SDN, may reduce spending by Nokia Networks customers or favor Nokia Networks competitors who have a stronger position in such technologies. Difficulties, uncertainty or any deterioration in global economic conditions or the occurrence or escalation of political unrest may result in mobile network operators postponing or reducing their investments in their network infrastructure and related services. Adverse developments in the markets to which Nokia Networks is more significantly exposed to may have a profound adverse effect on Nokia Networks.

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## Risk factors continued

The demand for digital map information and other location-based content by automotive and mobile device manufacturers is subject to developments of the automotive and consumer electronics industries. HERE sales and profitability are dependent on the developments of the automobile market, as well as the sales of the companies licensing data from HERE. Additionally, market developments favoring certain technological solutions where HERE competitors are more prevalent, such as vehicle navigation based on brought-in solutions rather than built-in, may have an adverse effect on HERE. As such, HERE is exposed to developments in the automotive market and general economic conditions globally and regionally. Adverse developments in the markets in which HERE has a strong position have a more profound adverse effect on HERE.

Nokia Technologies sales and profitability are currently derived largely from patent licensing. Patent licensing income may be adversely affected by general economic conditions or adverse market developments as well as regulatory and other developments with respect to protection awarded to technology innovations or compensation trends with respect to licensing. For example, our patent licensing business may be adversely affected if licensees ability to pay is reduced or they become insolvent or bankrupt. Additionally, poor performance of potential or current licensees may limit their motivation to seek new or renew existing licensing arrangements with us. In certain cases, the patent licensing income is dependent on the sales of the licensee, where the reduced sales of the licensee have a direct effect on the patent licensing income received by Nokia Technologies. With respect to fixed fee contracts, potential licensee bankruptcies would have adverse effects on the patent licensing income of Nokia Technologies. In addition, we are entering into new business areas based on our technology assets and may explore new business ventures. Such business or plans may be adversely affected by adverse industry and market developments in the numerous diverse markets in which Nokia Technologies operates, as well as by general economic conditions globally and regionally.

In addition, continued difficulties, uncertainty or deterioration in the global or regional economic conditions may:

- ; limit the availability of credit or raise related interest rates, which may have an adverse effect on the financial condition, and in particular the purchasing ability, of certain of our customers and may also result in requests for extended payment terms, credit losses or insolvencies;
- ; result in financial difficulties for our suppliers and partners, which in turn may result in their failure to perform as planned and, consequently, in delays in the delivery of our products;
- ; impair our ability to address customer requests for extended payment terms through sales of our customer receivables;
- ; result in lowered credit ratings of our short and long-term debt or a lowered outlook from credit rating agencies or limit our ability to improve our credit ratings and, consequently, impairing our ability to raise new financing or refinance our current borrowings and increasing our interest payments associated with any new debt instruments;

- result in failures of derivatives counterparties or other financial institutions, which could have a material adverse impact on our treasury operations;
  - increase the volatility of exchange rates, which in turn may increase the costs of our products which we may not be able to pass on to our customers and result in significant competitive benefit to competitors who incur part of their costs in other currencies; 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 and organize 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; or
  - result in tax-related disputes or increased and/or more volatile taxes that could adversely impact our effective tax rate, including possible new tax regulation, stricter interpretations of such regulation or increased efforts by government bodies seeking to more aggressively collect taxes as well as costly or disruptive tax-related disputes.
- We have significant presence in emerging markets and the economic conditions in these countries may be more volatile than in developed countries, and the purchasing power of our customers and consumers in developing markets depends to a greater extent on the price development of basic commodities and currency fluctuations, which may render our products or services unaffordable.

Adverse developments in the global financial markets could have a material adverse effect on our financial condition and results of operations and/or our ability to access affordable financing on terms satisfactory to us. For a more detailed discussion of our liquidity and capital resources, Refer to [Liquidity and Capital Resources](#) and Note 35, Risk management, of our consolidated financial statements included in this annual report on Form 20-F.

**We are a company with global operations and with sales derived from various countries, exposing us to risks related to regulatory, political or other developments in various counties or regions.**

We generate sales from and have manufacturing and other facilities and suppliers located in various countries around the world. Accordingly, regulatory developments, economic developments, or political turmoil, military actions, labor unrest, civil unrest, public health including disease outbreaks and environmental issues or natural and man-made disasters in such countries could have a material adverse effect on the supply of our products and services, including network infrastructure equipment manufactured in those countries, our sales and results of operations. In recent years, we have witnessed political unrest in various markets in which we conduct business or have operations in, which have adversely affected our sales in these markets or operations even outside these countries or regions, and any reoccurrence or escalation of such unrest could have a further material adverse effect on our sales or results of operations in the future. For instance, the events and instability in Ukraine and the international reaction to these may adversely affect our business or operations in Ukraine, Russia and/or related markets, including, as a result of current or increased economic and trade sanctions, economic uncertainty or a slowdown or downturn resulting from these events. As Nokia is a company with global operations and employees in a number of jurisdictions, as well as complex supply chains multiple business partners, we are inherently subject to various issues including potential health and safety



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## Operating and financial review

issues related to our operations, as well as the operations of our suppliers, and we are exposed to certain risks in relations to claims, disputes or adverse public perceptions caused by such issues.

Our business is subject to direct and indirect regulation in each of the countries where we, the companies with which we collaborate, 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 in some cases in the absence of applicable regulations and standards. As a result, changes in various types of regulations, their application, as well as economic 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 the expansion and commercial launch and ultimate commercial success of such networks. Also, changes in applicable privacy related regulatory frameworks may adversely affect our business, including possible changes that increase costs, limit or restrict possibilities to offer products or services, or reduce or could be seen to reduce the privacy aspects of our offerings, including if further governmental interception capabilities or regulations aimed at allowing other governmental access to data are required for the products and services that we offer. For instance, the possibility that countries could further require governmental interception capabilities or regulations aimed at allowing other governmental access to data could adversely affect us, for instance by reducing our sales to such markets or limiting our ability to use components or software that we have developed or sourced from other companies. Our ability to protect the intellectual property in our products and generate intellectual property related net sales is dependent on regulatory developments in various jurisdictions, as well as the application of the regulations, for instance through administrative bodies. Export control, tariffs or other fees or levies imposed on our products and environmental, health, product safety and data protection, security, consumer protection, money laundering and other regulations that adversely affect the export, import, technical design, pricing or costs of our products could also adversely affect our sales and results of operations. 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 payment obligations, and in response to prevailing difficult global economic conditions there may be an increased aggressiveness in collecting such fees. The economic and trade sanctions environment can also be difficult to navigate for companies with global operations. We may be subject to new, existing or tightened export control regulations, sanctions, embargoes or other forms of economic and trade restrictions imposed on certain countries. Such actions may trigger additional investigations, including tax audits by authorities or claims by contracting parties. The result and costs of such investigations or claims may be difficult to predict and could lead to lengthy disputes, fines or fees, indemnities or a costly settlement.

Our provision of services and adaptation of cloud-based solutions has resulted in a variety of new regulatory issues and makes us subject to increased regulatory scrutiny. Our current business models in the Nokia Networks and HERE businesses rely on certain centralized data processing solutions and cloud or remote delivery based services for distribution of services and software or data storage. The cloud or remote delivery based business models and operations have certain inherent risks, including those stemming from the potential security breaches, and applicable regulatory regimes may cause limitations in implementing such business models or expose us to regulatory or contractual actions. 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 products and services less appealing to the end users, require us to incur substantial costs, change our business practices or prevent us from offering our products and services.

We have significant presence in emerging market countries, which may have a higher degree of regulatory or political risk. These markets represent a significant portion of our total sales, and a significant portion of any expected industry growth. Most of our suppliers are located in and our products are manufactured and assembled in emerging markets, particularly in Asia. Our businesses and investments in emerging markets may also be subject to risks and uncertainties, including unfavorable or unpredictable treatment in relation to tax matters, exchange controls, and other restrictions affecting our ability to make cross-border transfers of funds, regulatory proceedings, unsound or unethical business practices, challenges in protecting our IPR, nationalization, inflation, currency fluctuations, or the absence of, or unexpected changes in, regulation as well as other unforeseeable operational risks. Refer to Note 2, Segment information, of our consolidated financial statements included in this annual report on Form 20-F for more detailed information on geographic location of net sales to external customers, segment assets and capital expenditures.

In line with changes in strategy, as well as in some cases a difficult political or business environment and an increasingly complicated trade sanctions environment, Nokia and its Nokia Networks business have exited or reduced operations in certain areas or countries, with some of these exits or reductions in operations still-ongoing. We continuously monitor international developments and assess the appropriateness of our presence and businesses in various markets. For instance, as a result of ongoing international developments, Nokia Networks has continued to re-assess its position on performing business in Iran, and increasing activities with its existing customers in compliance with applicable trade sanctions and regulations. In 2014, Nokia Networks reached agreements with its existing customers that enable Nokia Networks to settle its historical contractual obligations and to explore resuming other business with the customers subject to compliance with applicable trade sanctions and regulations. The actions described in this paragraph may have adverse effects on Nokia for instance through triggering additional investigations, including tax audits by authorities or claims by contracting parties or reputational damage resulting for instance in adverse effects to business relationships. The result and costs of investigations or claims may be difficult to predict and could lead to lengthy disputes, fines or fees, indemnities or a settlement.

As a global company, we are subject to various legislative frameworks and jurisdictions that regulate fraud committed in the course of business operations, as well as economic and trade sanctions and, as such, the extent and outcome of possible proceedings is difficult to estimate with any certainty. Further, our businesses and results of operations may be adversely affected by regulation as well as economic and trade policies favoring the local industry participants as well as other measures with potentially protectionist objectives that host governments in different

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## Risk factors continued

countries may take, particularly in response to challenging global economic conditions. The impact of changes in or uncertainties related to regulation and trade policies could affect our businesses and results of operations adversely even in cases, where the specific regulations do not directly apply to us or our products and services. In many parts of the world where we currently operate or seek to expand our businesses, local practices and customs may be in contradiction to our Code of Conduct and could violate anticorruption laws, including the US Foreign Corrupt Practices Act and the UK Bribery Act 2010, or EU, as well as other applicable economic and trade sanctions and embargoes. Our employees, or other parties acting on our behalf, could violate policies and procedures intended to promote compliance with anticorruption laws or economic and trade sanctions. Violations of these laws by our employees or other parties acting on our behalf, regardless of whether we had participated in such acts or had knowledge of such acts at certain levels within our organization, could result in us or our employees becoming subject to criminal or civil enforcement actions, including fines or penalties, disgorgement of profits and suspension or disqualification of sales. Additionally, violations of law or allegations of violations may result in the loss of reputation and business and adversely affect the Nokia brand. Detecting, investigating and resolving such situations may also result in significant costs, including the need to engage external advisers, and consume significant time, attention and resources from our management and other key employees. The result and costs of such investigations or claims may be difficult to predict and could lead to lengthy disputes, fines or fees, indemnities or a costly settlement.

We are a publicly listed company. As such, we are subject to various securities and accounting rules and regulations. While we have determined that our internal control over financial reporting was effective as of December 31, 2014 we must continue to monitor and assess our internal control over financial reporting and our compliance with the applicable securities regulation and accounting rules. If we were to fail to maintain effective internal control over financial reporting, the accuracy and timeliness of our financial reporting could be adversely affected, which could result, for instance, in loss of confidence in us or in the accuracy and completeness of our financial reports, or otherwise in the imposition of fines or other regulatory censures, which could have a material adverse effect on us.

**Our products, services and business models depend on IPR on technologies that we have developed as well as technologies that are licensed to us by certain third parties. As a result, evaluating the rights related to the technologies we use or intend to use is increasingly challenging, and we expect to continue to face claims that we could have allegedly infringed third parties' IPR. 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.**

Our products and services include, and our business models depend on, utilization of numerous patented standardized or proprietary technologies. We invest significantly in R&D through our businesses to develop new relevant technologies, products and services. Our R&D activities have resulted in us having one of the industry's strongest intellectual property portfolios in Nokia Technologies and a strong portfolio in Nokia Networks, which our products and services depend on and we license to other companies. We believe our innovations that are protected by IPR are a strong competitive advantage for our businesses. The continued strength of our portfolios depends on our ability to create new relevant technologies, products and services through our R&D activities.

Our products and services include increasingly complex technologies that we have developed or that have been licensed to us by certain third parties. The amount of such proprietary technologies and the number of parties claiming

IPR continue to

increase, even within individual products, as the range of our products become more diversified and as the complexity of the technology increases. Additionally, we may enter into new business areas involving complex technologies. As such we continue to face the possibility of alleged infringement and related intellectual property claims against us going forward. The holders of patents and other IPR potentially relevant to our products may be unknown to us, may have different business models, 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 collaborating with us possess appropriate IPR or licenses, we cannot fully avoid the risks of IPR infringement created by suppliers of components and various layers in our products, or by companies with which we collaborate in R&D activities. Similarly, we and our customers may face claims of infringement in connection with their use of our products.

It is common that we need to indemnify our customers for certain intellectual property related infringement claims related to products or services purchased from us. Such claims are generally made directly to a Nokia customer and we may have limited possibilities to control the processes or evaluate the outcomes of such in advance. As such, indemnifications can result in significant payments obligations for us that may be difficult to forecast in advance.

The business models for mobile services are from many aspects not established currently. 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.

Since all technology standards, including those we use and rely on, include certain IPR, we cannot fully avoid risks of a claim for infringement of such rights due to our reliance on such standards. We believe the number of third parties declaring their intellectual property to be potentially relevant to these standards, for example, the standards related to so called 3G and LTE 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, most such IPR 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 with this and thus, we have experienced costly and time-consuming litigation over such issues and we may continue to experience such litigation in the future.

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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 renew 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 could potentially 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 expert employees from our businesses, and, if decided against us, could result in restrictions on our ability to sell our products, require us to pay increased licensing fees, unfavourable judgments, costly settlements, fines or other penalties and incur expenses.

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 our subsidiaries, 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 in the use of certain technologies or time-consuming and costly disputes whenever there are changes in our corporate structure or our subsidiaries, or whenever we enter new businesses or acquire new businesses.

We make accruals and provisions to cover our estimated total direct IPR costs for our products. The total direct IPR costs consist of actual payments to licensors, accrued expenses under existing agreements and provisions for potential liabilities. We believe our accruals and provisions are appropriate for all technologies owned by third parties. The ultimate outcome, however, may differ from the provided level, which could have a positive or adverse 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 IPR and any IPR claims, regardless of merit, could result in a material loss of profits, costly litigation, the obligation to pay damages and other compensation, the diversion of the attention of our key employees, product shipment delays or the need for us to develop non-infringing technology or to enter into a licensing agreement on unfavourable commercial terms. 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 material adverse effect on our operating results. Refer to [Business Overview Nokia Networks Patents and licenses](#) and [Business Overview Nokia Technologies Patents and licenses](#) for a more detailed discussion of our intellectual property activities.

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

We operate our businesses in a number of jurisdictions which involve different tax regimes and application of rules related to taxation. Applicable taxes such as income taxes as well as indirect taxes 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 such laws by local tax authorities could drastically change or tax audits may be 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 products or services may have different tax treatments.

Nokia is subject to income taxes in multiple jurisdictions. Our businesses and investments globally and especially in emerging markets are subject to uncertainties, including unfavorable or unpredictable changes in tax laws (possibly with retroactive effect in certain cases), taxation treatment and regulatory proceedings including tax audits. For instance, during early 2013 Nokia became subject to a tax investigation in India, focusing on Indian tax consequences of payments made within Nokia for the supply of operating software from its parent company in Finland. Such proceedings can be lengthy, involve actions that can hinder local operations, affect unrelated parts of our business and the outcome of such proceedings is difficult to predict. Refer to Note 13, Income tax, of our consolidated financial statements included in this annual report on Form 20-F for more information on our tax proceedings. Adverse developments or outcomes of such proceedings could have a material adverse effect on our cash flows, income statement and financial position. We are required to indemnify Microsoft for certain tax liabilities, including tax liabilities for the Nokia entities acquired by Microsoft in connection with the closing of the Sale of the D&S Business or the assets acquired by Microsoft attributable to tax periods ending on or prior to the closing date of the closing of the Sale of the D&S Business or a certain pre-closing portion of any taxable period that includes the closing date of the Sale of the D&S Business or taxes imposed with respect to any asset not acquired by Microsoft in connection with the Sale of the D&S Business.

There may also be unforeseen tax expenses that may turn out to have an unfavourable 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 level or that cash flows regarding taxes will be stable.

**Our actual or anticipated performance, among other factors, could reduce our ability to utilize our deferred tax assets.**

Deferred tax assets recognized on tax losses, unused tax credits and tax deductible temporary differences are dependent on our ability to offset such items against future taxable income within the relevant tax jurisdiction. Such deferred tax assets are also based on our assumptions on future taxable earnings and these may not be realized as expected, which may cause the deferred tax assets to be materially reduced. There can be no assurances that an unexpected reduction in deferred tax assets will not occur. Any such reduction could have a material adverse effect on us. Additionally, our earnings have in the past been and may in the future continue to be unfavorably impacted in the event that no tax benefits are recognized for certain deferred tax items.

**We may be unable to retain, motivate, develop and recruit appropriately skilled employees.**

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 planned businesses, technologies, software, products and services. The market for skilled employees and leaders in our businesses is extremely competitive.

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## Risk factors continued

We aim to create a corporate culture that is motivational and encourages creativity and continuous learning as the competition for skilled employees remains intense. We have over recent years significantly reduced our workforce and introduced changes in our strategy. Changes and uncertainty may cause disruption and dissatisfaction among employees, as well as fatigue due to the cumulative effect of several other reorganizations in past years. As a result, employee motivation, energy, focus, morale and productivity may be reduced, causing inefficiencies and other problems across the organization and leading to the loss of key employees and the increased costs in resolving and addressing such matters. Reorganizations and strategic changes may also result in key employees leaving us or resource gaps, some of which may only be noticed after a certain period of time. If the strategic direction of Nokia or any of its businesses is perceived adversely by our employees, this may result in a heightened risk of being able to retain or recruit needed resources. Moreover, our employees may be targeted aggressively by our competitors, for instance, due to recent changes in our strategy, and some employees may be more receptive to such offers, leading to the loss of key employees. Accordingly, we may need to adjust our compensation and benefits policies and take other measures to attract, retain and motivate skilled employees to align with the changes to our mode of working and culture in order to implement our new strategies successfully. Additionally, succession planning especially with respect to key employees and leaders is crucial to avoid business disruptions and to ensure the appropriate transfer of knowledge. From time to time, we may acquire businesses or complete other transactions where retaining key employees may be crucial to obtain intended benefits of such transactions and as such, we must ensure that key employees of such acquired businesses are retained and appropriately motivated. However, there can be no assurances that we will be able to implement measures successfully to retain or hire the needed employees. We believe this will require significant time, attention and resources from our senior management and other key employees within our organization and may result in increased costs. We have encountered, and may in the future encounter, shortages of appropriately skilled employees or lose key employees or senior management, which may hamper our ability to implement our strategies and have a material adverse effect on our business and results of operations.

Relationships with employee representatives are generally managed at site level and most collective bargaining agreements have been in place for several years. Our inability to negotiate successfully with employee representatives or failures in our relationships with such representatives could result in strikes by the employees, increased operating costs as a result of higher wages or benefits paid to employees as the result of such strike or other industrial action and/or inability to implement changes to our organization and operational structure in the planned timeframe or expense level, or at all. If our employees were to engage in a strike or other work stoppage, we could experience a significant disruption in our day-to-day operations and/or higher ongoing labor costs, which could have a material adverse effect on our business and results of operations.

**If any of the companies we partner and collaborate with were to fail to perform as expected or if we fail to achieve the collaboration or partnering arrangements needed to succeed, we may not be able to bring our products, services or technologies to market successfully or in a timely manner or our operations could be affected adversely.**

We are increasingly collaborating and partnering with third parties to develop technologies, products and services, as well as seek new revenue through partnering arrangements. Also, we depend on third-party partners in our efforts to monetize the Nokia brand

and technologies, for instance through arrangements where the Nokia brand is licensed to third-party products and the product development and distribution are handled partly or fully by third parties. Additionally, we have outsourced various functions to third parties and are relying on them to provide certain services to us. These arrangements involve the commitment by each party of certain resources, including technology, R&D, services and employees. Although the objective of the collaborative and partnering arrangements is a mutually beneficial outcome for each party, our ability to introduce products and services that are commercially viable and meet our and our customers' and consumers' quality, safety, security and other standards in a timely manner 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 collaborate 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 insufficiently protected or infringe third parties' IPR in a way that we cannot foresee or prevent, or confidential 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;
- the partners cause damage to the Nokia brand, for instance, if the brand licensed products are of poor quality or messaging or advertisements failures;
- our own quality controls fail;
- adverse public perception of our partner is reflected on us or we are exposed to claims against us, for instance, due to labor, safety, compliance or environmental issues of our partners, including supply chain; or
- the financial condition of our collaborative partners deteriorates, which may result in underperformance by the collaborative partners, insolvency, bankruptcy or closure of the business of such partners.

**Our net sales, costs and results of operations, as well as the US dollar value of our dividends and market price of our American Depositary Shares ( 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 are a company with global operations 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 prove 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, could have an adverse effect on our results of operations, particularly our profitability. Further, exchange



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rate fluctuations may have an adverse effect on our net sales, costs and results of operations, as well as our competitive position through their impact on our competitors and customers. 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, refer to Operating and financial review and prospects Principal Industry Trends Affecting Operations and Note 35, Risk management, of our consolidated financial statements included in this annual report on Form 20-F.

### **An unfavorable outcome of litigation, contract-related disputes or allegations of health hazards associated with our businesses could have a material adverse effect on our us.**

We are a party to lawsuits and contract-related disputes in the normal course of our business. Litigation or contract related disputes for instance through arbitration can be expensive, lengthy and disruptive to normal business operations and divert the efforts of our management. Moreover, the outcomes of complex legal proceedings or contract-related disputes are difficult to predict.

An unfavorable resolution of a particular lawsuit or contract-related dispute 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 unfavourable outcome is likely and the loss can reasonably be estimated. Due to the inherent uncertain nature of litigation, the ultimate outcome or actual cost of settlement may materially differ from estimates. We believe our provisions for pending litigation are appropriate. The ultimate outcome, however, may differ from the provided estimate, which could either have a positive or an adverse impact on our results of operations and financial condition.

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, and these could have a material adverse effect on our business. We have been involved in several lawsuits alleging adverse health effects associated with our products, including those caused by electromagnetic fields and the outcome of such procedures is difficult to predict, including the potentially significant fines or settlements. 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 the demand for mobile devices having an adverse effect, for instance through a decreased demand for mobile networks or increased difficulty in obtaining sites for base stations.

Refer to Note 28, Provisions, of our consolidated financial statements included in this annual report on Form 20-F for a more detailed discussion on litigation that we are party to.

**Our operations rely on the efficient and uninterrupted operation of complex and centralized information technology systems and networks and certain personal and consumer data is stored as part of our business operations. If a system or network inefficiency, cybersecurity breach, 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. Additionally, certain personal and consumer data is stored by us or our customers as part of our business operations. All information technology systems are potentially vulnerable to damage, malfunction or interruption from a variety of sources. We are to a

significant extent relying on third parties for the provision of information technology systems and networks. We may experience disruptions if our partners do not deliver as expected or if we are unable to successfully manage systems together with our business partners. The ongoing trend to cloud-based architectures and network function virtualization is introducing further complexity and associated risk.

We are constantly looking into ways of improving our information technology systems. We are building new capabilities, and for instance in our Nokia Networks business we are introducing new significant information technology solutions, expected to be taken into use during 2015. We will often need to use new service providers and may, due to technical developments or choices regarding technology, increase our reliance on certain new technologies, such as cloud or remote delivery-based services and certain other services that are used over the internet rather than using the traditional licensing model. Switching to new service providers and introducing new technologies is inherently risky and may expose us to an increased risk of disruptions in our operations, for instance due to network inefficiency, a cybersecurity breach, malfunctions or other disruptions resulting from information technology systems.

We pursue various measures in order to manage our risks related to system and network malfunctions and disruptions, including the use of multiple suppliers and 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, malware 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 business, results of operations and brand value. 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 location-based services, could cause significant discontent among users of our products resulting in claims or deterioration of our brand value.

Although we endeavor to develop products and services that meet with the appropriate security standards, including effective data protection, we or our products and online services, marketing and developer sites may be subject to cybersecurity breaches, including hacking, viruses, worms and other malicious software, unauthorized 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 and services. Events or mere allegations of cybersecurity breaches may have a material adverse effect on our business. Additionally, we contract with multiple third parties in various jurisdictions who collect and use certain data on our behalf. Although we have processes in place designed to ensure appropriate collection, handling and use of such data, third parties may use the data inappropriately, breach laws and contracts in collecting, handling or using or leaking such data. This could lead to lengthy legal proceedings or fines imposed on us as well as adverse effects to our reputation and brand value.

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## Risk factors continued

In connection with providing products and services to our customers and consumers, certain customer feedback, information on consumer usage patterns and other personal and consumer data is collected and stored through us, either by us or our business partners or subcontractors. Loss, improper disclosure or leakage of any personal or consumer data collected by us or which is available to our partners or subcontractors, made available to us or stored in or through our products could have a material adverse effect on us and harm our reputation and brand. In addition, governmental authorities may use our networks 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.

**We may not be able to achieve targeted benefits from or successfully implement planned transactions, such as acquisitions, divestments, mergers or joint ventures, for instance due to issues in successfully selecting the targets or failure to execute transactions or due to unexpected liabilities associated with such transactions.**

From time to time, we may consider possible transactions that could complement our existing operations and enable us to grow our business or divest our existing businesses or operations. We have made a number of acquisitions and divestments in addition to the Sale of the D&S Business, we have for instance as part of Nokia Networks' strategy to focus on mobile broadband, divested certain businesses and may make further transactions, such as acquisitions, divestments, mergers or joint ventures in the future.

We cannot provide assurance that any transactions, such as acquisitions, divestments, mergers or joint ventures, we consummate will ultimately provide the benefits we originally anticipate and the return on the acquisition may be below targets or negative. After reaching an agreement for a transaction, we may need to satisfy pre-closing conditions on acceptable terms, which may prevent us from completing the transaction or make changes to the scope of the transaction. Furthermore, we may not succeed in integrating acquired operations with our existing businesses.

Transactions, including acquisitions, divestments, mergers or joint ventures involve inherent risks, including:

- ; the assumption and exposure to unknown or contingent liabilities of acquired businesses; such as those related to contractual obligations, taxes, pensions, environmental liabilities, disputes and compliance matters;
- ; the ability to integrate acquired businesses and/or to achieve identified and anticipated operating and financial synergies;
- ; unanticipated delays or inability to proceed with transactions as planned, for instance, due to issues in obtaining regulatory or shareholder approvals. For instance, in certain cases regulatory bodies could impose conditions on the acquirer of a business to divest certain assets or impose other obligations due to competition laws;

- ; unanticipated costs or changes in scope, for instance, due to issues with regulators or courts imposing terms on a transaction or obstacles that result in changes required in the scope of the transaction;
- ; the diversion of management attention from the existing business;
- ; the potential loss of key employees and customers;
  
- ; unanticipated changes in business, industry or general economic conditions that affect the assumptions underlying the acquisition;
  
- ; potential disputes with sellers, purchasers or other counterparties;
  
- ; impairments related to goodwill and other intangible assets, for instance, due to business performance after an acquisition or differences in evaluating the goodwill with respect to the acquired businesses;
  
- ; there may be limitations in our ability to control any potential joint ventures and accordingly such transactions may result in increased exposure to operational, compliance, legal or financial risks;
  
- ; unexpected costs associated with the separation of the business which is to be divested;
  
- ; additional payment obligations and higher costs resulting from non-performance by divested businesses;
  
- ; exposure to contingent liabilities in connection with any indemnity we provide to the purchaser in connection with such divestment;
  
- ; potential post-closing claims for indemnification and disputes with purchaser;
  
- ; our dependency on some of the divested businesses as our suppliers in the future; and
  
- ; high transaction costs.

The Sale of the D&S Business may expose us to contingent liabilities and the agreements we have entered into with Microsoft may have terms that prove to be unfavorable to us. The Devices & Services Purchase Agreement may expose us to liabilities or have terms that prove unfavorable to us. Under the Devices & Services Purchase Agreement, we are required to indemnify Microsoft for the breach or violation of certain representations and warranties and covenants made by us in the Devices & Services Purchase Agreement, subject to certain limitations and, in some cases, subject to a cap of EUR 284 250 000 and for losses arising from assets not acquired by Microsoft, liabilities retained by us and liabilities that are not primarily related to the Devices & Services business, subject to certain limitations and, in some cases, subject to a cap of EUR 284 250 000. Significant indemnification claims by Microsoft with respect to the Devices & Services Purchase Agreement and the Sale of the D&S Business could have a material

adverse effect on our financial condition. In addition, we are required to indemnify Microsoft for certain tax liabilities, including tax liabilities of the Nokia entities acquired by Microsoft, the Devices & Services business or the assets to be acquired by Microsoft attributable to tax periods ending on or prior to the closing date of the transaction or a certain pre-closing portion of any taxable period that includes the closing date of the transaction or taxes imposed with respect to any asset not being acquired by Microsoft.

Significant transactions may also result in claims between the parties, which can consume time and management attention and the outcome of disputes related to significant transactions may be difficult to predict.

**Our efforts aimed at managing and improving financial or operational performance, cost savings and competitiveness may not lead to targeted results or improvements.**

We need to manage our operating expenses and other internal costs to maintain cost efficiency and competitive pricing of our products and services. Failure by us to determine the appropriate prioritization of operating expenses and other costs, to identify and implement the appropriate

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### Operating and Financial review

measures to adjust our operating expenses on a timely basis and other costs accordingly, or to maintain achieved reduction levels, could have a material adverse effect on our business, results of operations and financial condition.

Nokia operates in highly competitive industries and we are continuously aiming to increase the efficiency of our operations. We may in the ordinary course of business institute new plans for restructuring measures. The restructuring programs are costly, potentially disruptive to operations and may not lead to sustainable improvements in overall competitiveness and profitability, and may have an adverse effect, for instance, as a result of the loss of scale benefits.

### **We may not be able to optimize our capital structure as planned and re-establish our investment grade credit rating.**

We announced a planned capital structure optimization program on April 29, 2014 which focuses on recommencing dividends, distributing excess capital to shareholders, and reducing interest bearing debt. Nokia also has a target to re-establish its investment grade credit rating. There can be no assurance that the capital structure optimization program can be executed as currently planned or that it would result in the targeted benefits, including us being able to re-establish our investment grade credit rating. Additionally, returning capital to shareholders reduces our capital, which could expose us to financial difficulties or us needing to incur additional indebtedness under certain circumstances, for instance, if we have not accurately estimated our need of capital going forward or our business performance.

### **Risks related specifically to Nokia Networks**

In addition to the other risks described in this section, the following are risks specifically related to our Nokia Networks business.

### **Nokia Networks focuses on mobile broadband and accordingly its sales and profitability depend on its success in the mobile broadband infrastructure and related services market. Nokia Networks may fail to execute its strategy or to effectively and profitably adapt its business and operations in a timely manner to the increasingly diverse solution needs of its customers in such market or to such technological developments.**

In line with its strategy, Nokia Networks focuses on mobile broadband and related services. Nokia Networks is focusing on end-to-end mobile broadband leadership, services growth, and quality and execution. Accordingly, if Nokia Networks is not successful in implementing its strategy and achieving the desired outcomes in a timely manner or if the mobile broadband infrastructure and related services market fails to develop in the manner currently anticipated by us, or if there are unfavourable variations in Nokia Networks product and service mix towards lower margin products or services, the Nokia Networks business, results of operations, particularly profitability, and financial condition could be materially adversely effected. Nokia Networks success with its focus on mobile broadband infrastructure and related services is subject to risks and uncertainties, including:

- ; the intensity of the competition;
  
- ; further consolidation of Nokia Networks' customers or competitors;
  
- ; Nokia Networks' inability to develop mobile broadband products and services in a timely manner, or at all, that meet future technological or quality requirements and challenges;
  
- ; Nokia Networks' inability to correctly estimate technological developments or adapt to such;
  
- ; the development of the mobile broadband and related services market in directions that leave Nokia Networks deficient in certain technologies and industry areas that impact its overall competitiveness;
  
- ; certain customers who currently buy products and services from Nokia Networks, which are not regarded as core customers, may choose to turn to alternative vendors to maintain end-to-end services from such vendors;
  
- ; delays in executing relevant initiatives related to the further implementation of Nokia Networks' strategy;
  
- ; Nokia Networks' inability to successfully develop market recognition as a leading provider of software and services in the mobile broadband infrastructure and related services market;
  
- ; Nokia Networks' inability to sustain or grow its net sales in the businesses and areas of its strategic focus, which could result in the loss of scale benefits and reduced competitiveness;
  
- ; Nokia Networks' inability to identify opportunities and entering agreements which meet its requirements and profitability estimates, and capture the expected opportunities for additional sales related to deals with lower initial profitability;
  
- ; Nokia Networks' inability to continue utilizing current customer relations related to its mobile broadband infrastructure products for advancing its sales of related services, and Nokia Networks may not be able to pursue new services-led growth opportunities;
  
- ; Nokia Networks' global presence and business that involves large projects expose Nokia Networks to various business and operational risks including those related to market developments, political unrest, economic and trade sanctions and compliance and anticorruption related risks, especially with respect to emerging markets;
  
- ; Nokia Networks' inability to maintain efficient and low-cost operations; and

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Nokia Networks may be adversely effected by economic or political instability or the existence or introduction of further economic and trade sanctions, for instance the events in Ukraine and the international reaction to these may adversely affect the Nokia Networks business or operations in Ukraine, Russia and/or related markets.

**Nokia Networks faces intense competition and may fail to effectively and profitably invest in new competitive high-quality products, services, upgrades and technologies and to bring them to market in a timely manner.**

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

Nokia Networks' business performance depends to a significant extent on the timely and successful introduction of new products, services and upgrades of current products to meet the evolving requirements of its customers, comply with emerging industry standards and address competing technological and product developments carried out by competitors. The R&D 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 Networks may focus its resources on products and technologies that do not become widely accepted or ultimately prove unviable. Nokia Networks results of operations will depend to a significant extent on its ability to succeed in following areas:



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Risk factors continued

- ı maintaining and developing a product portfolio and service capability that is attractive to its customers;
- ı continuing to introduce new products and product upgrades successfully and on a timely basis;
- ı development of new or enhance existing tools for its services offerings;
- ı optimizing the amount of customer or market specific technology, product and feature variants in the product portfolio;
- ı continuing to enhance the quality of its products and services;
- ı appropriate pricing of the products and services, which is crucial in the networks infrastructure business due to the typical long-term nature and complexity of the agreements; and
- ı leveraging its technological strengths.

The participants in the mobile broadband infrastructure and related services market compete on the basis of product offerings, technical capabilities, quality, service and price. The competitive environment in this market continues to be intense and is characterized by maturing industry technology, equipment price erosion and challenging price competition. Moreover, mobile operators' cost reductions, network sharing and industry consolidation among the operators are reducing the amount of available business, resulting in further increasing competition and pressure on pricing and profitability.

Consolidation of operators may result in them concentrating their business in selected service providers, increasing the possibility that agreements with Nokia Networks are terminated or not renewed.

Nokia Networks competes with companies that have larger scale, affording such companies more flexibility on pricing, likewise Nokia Networks competes with companies that may have stronger customer financing possibilities due to internal policies or governmental support, such as in the form of trade guarantees, allowing them to offer products and services at very low prices or with attractive financing terms. Nokia Networks' key competitors have large scale, and industry consolidation could result in even larger scale entities, impairing Nokia Networks' competitive position. Nokia Networks also continues to face intense competition from competitors, including from China, which endeavor to gain further market share and broaden their presence in new areas of the network infrastructure and related services business. Competition for new customers, as well as for new infrastructure deployment is particularly intense and focused on price and contract terms in favor of customers. In addition, new competitors may enter the industry as a result of acquisitions or shifts in technology. For example, the virtualization of core and radio networks and the convergence of information technology and telecommunications may lower the

barriers to entry for IT companies entering the traditional telecommunications industry. Further, these developments may enable more generic IT and intellectual property hardware to be used in telecommunications networks leading to further price pressure. If Nokia Networks cannot respond successfully to the competitive challenges in the mobile broadband infrastructure and related services market, our business and results of operations, particularly profitability, and financial condition may be materially adversely affected.

Nokia Networks' failure to effectively and profitably invest in new competitive 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 have a material adverse effect on our results of operations, particularly profitability, and financial condition. Nokia Networks needs to introduce products and services

in a cost-efficient and a timely manner and to manage proactively the costs and cost development related to its portfolio of products and services, including component sourcing, manufacturing, logistics and other operations. Currency fluctuations may also have an adverse impact on Nokia Networks' ability to manage its costs. If Nokia Networks fails to maintain or improve its market position and scale compared to its competitors across the range of its products and services, as well as leverage our scale to the fullest extent, or if it is unable to develop or otherwise acquire software, keep prices at competitive levels, or if its 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.

Nokia Networks' products are highly complex, and defects in their design, manufacture and associated hardware, software and content have occurred and may occur in the future. Defects and other quality issues may result from, among other things, failures in our own product manufacturing and service creation and delivery as well as failures of our suppliers to comply with our supplier requirements, or failures in products and services created jointly with business partners or other third parties where the development and manufacturing process is not fully within our control. Quality issues may cause, for instance, delays in deliveries, liabilities for network outages, and additional repair, product replacement or warranty costs to us, and harm our reputation and our ability to sustain or obtain business with our current and potential customers. With respect to our services, quality issues may relate to the challenges of having the services fully operational at the time they are made available to our customers and maintaining them on an ongoing basis. We make provisions to cover our estimated warranty costs for our products. We believe our provisions are appropriate, although the ultimate outcome may differ from the provisions that are provided for, which could have a material adverse effect on our results of operations, particularly profitability and financial condition.

**Nokia Networks is dependent on a limited number of customers and large multi-year agreements and accordingly a loss of a single customer, further operator consolidation or issues related to a single agreement, may have a significant impact on Nokia Networks.**

A large proportion of net sales that Nokia Networks generates have historically been derived from a limited number of customers. As consolidation among existing customers continues, it is possible that an even greater portion of Nokia Networks' net sales will be attributable to a smaller number of large service providers operating in multiple markets. As part of Nokia Networks' focus on certain markets, the proportion of the sales to certain key customers in such markets has also grown. These developments will also increase the impact of the outcome of certain individual agreement tenders on Nokia Networks' net sales. In addition, mobile operators are increasingly entering into network sharing arrangements, as well as joint procurement agreements, which may reduce their investments and the number of networks available for Nokia Networks to service. Further, the procurement organizations of certain large mobile operators sell consulting services to enhance the negotiation position of smaller operators towards their vendors. As a result of these trends and the intense competition in the industry, Nokia Networks may be required to provide agreement terms increasingly favorable to customers to remain competitive. Any unfavorable developments in relation to, or any change in the agreement terms applicable to a major customer, may have a material adverse effect on our business, results of operations and financial condition.



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Large multi-year agreements, which are typical in the mobile broadband infrastructure and related services business, include a risk that the timing of sales and results of operations associated with such agreements will differ from expectations. Moreover, such agreements often require dedication of substantial amounts of working capital and other resources, which may adversely affect our cash flow, particularly in the early stages of the term of an agreement, or may require Nokia Networks to continue to sell certain products and services, or to certain markets, that would otherwise be discontinued, thereby diverting resources from developing more profitable or strategically important products and services, or focusing more profitable or strategically important markets. Any suspension, termination or non-performance by us under the agreement terms may have a material adverse effect on Nokia Networks because mobile operators have demanded and may continue to demand stringent agreement undertakings, such as penalties for agreement violations.

**We may fail to manage our manufacturing, service creation and delivery, as well as our logistics efficiently, and without interruption, or the limited number of suppliers we depend on may fail to deliver sufficient quantities of fully functional products and components or deliver timely services meeting our customers' needs.**

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 and services, both ramping up and down production at our facilities and network implementation capabilities 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 complex manufacturing process and service creation and delivery process or achieving required efficiency and flexibility, whether we manufacture our products and create and deliver our services ourselves or outsource to third parties.

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 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 or service 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. Suppliers may from time to time extend lead times, limit supplies, change their partner preferences, increase prices, provide poor quality supplies or be unable to adapt to changes in demand due to capacity constraints or other factors, which could adversely affect our ability to deliver our products and services on a timely basis. For example, Nokia Networks' efforts to meet its customer needs during major network roll-outs in certain markets may require sourcing large volumes of components and services from suppliers and vendors at short

notice and simultaneously with its competitors. If we fail to anticipate customer demand properly, an over-supply or under-supply of components and production or services delivery capacity could occur. In many cases, some of our competitors utilize the same contract manufacturers, component suppliers and service vendors. If they have purchased

capacity or components ahead of us, this could prevent us from acquiring the required components or services, 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. The cost-efficiencies implemented in our supply chain designed to enable us to meet our target of reducing Nokia Networks' production overheads may result in lapses in the availability of certain components, especially in times of tight supply or demand peaks.

We may not be able to secure components at attractive terms from our suppliers or, a supplier may fail to meet our supplier requirements, such as, most notably, our and our customers' product quality, safety, security and other standards. Consequently, some of our products may be unacceptable to us and our customers, 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. Also, some suppliers may not comply with local laws, including, among others, local labor laws. In addition, a component supplier may experience delays or disruptions to its manufacturing processes or financial difficulties or even insolvency, bankruptcy or closure of its business, in particular due to difficult economic conditions. Any of these events could delay our successful and timely delivery of products that meet our and our customers' quality, safety, security and other requirements, or otherwise materially adversely affect our sales and results of operations or our reputation and brand value.

Our current business models rely on certain centralized data processing solution and cloud or remote delivery-based services for distribution of services and software or data storage. The cloud or remote delivery-based business models and operations have certain inherent risks, including those stemming from the potential security breaches and applicable regulatory regimes, which may cause limitations in implementing cloud or remote delivery-based models or expose us to regulatory or contractual actions.

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 our brands and claims for compensation resulting from our decisions on where to place and how to utilize our manufacturing facilities. Such difficulties may result from, among other things, delays in adjusting production at our facilities, delays in expanding production capacity, failures 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' 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 our brands.

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## Risk factors continued

Many of our production sites or 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 are affected by any adverse conditions, such as natural disasters, geopolitical disruptions or civil unrest that disrupt production and/or deliveries from our suppliers, our ability to deliver our products on a timely basis could be adversely affected, which may materially adversely affect our business and results of operations.

**Nokia Networks may be adversely affected by developments with respect to the customer financing or extended payment terms it provides to customers.**

Mobile operators in certain markets may require their suppliers, including Nokia 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 our working capital, may be significant. Requests for customer financing and extended payment terms are typical for our industry.

Uncertainty in the financial markets may result in increased customer financing requests. As a strategic market requirement, Nokia Networks arranges and facilitates financing or provides extended payment terms to a number of customers, typically supported by export credit or guarantee agencies or through the sale of the related receivables. In the event that export credit agencies face future constraints on their ability or willingness to provide financing to Nokia Networks' customers or there is insufficient demand to purchase their receivables, these could have a material adverse effect on our business and financial condition. Nokia Networks has agreed to extended payment terms for a number of customers, and may 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 a diversified customer portfolio, defaults in the aggregate could have a material adverse effect on us.

Nokia Networks cannot guarantee that it will be successful in arranging, facilitating or providing required financing, including extended payment terms to customers, particularly in difficult financial conditions on the market. In addition, certain of Nokia Networks' competitors may have greater access to credit financing, which could adversely affect our ability to compete successfully for business opportunities in the mobile broadband infrastructure and, indirectly, in the related services sectors. Nokia Networks' ability to manage its total customer financing and trade credit exposure depends on a number of factors, including capital structure, market conditions affecting its customers, the levels and terms of credit available to it and to its customers, the cooperation of export credit or guarantee agencies and our ability to mitigate exposure on acceptable terms. Nokia Networks may not be successful in managing the challenges associated with the customer financing and trade credit exposure that it may face from time to time. While defaults under financings, guarantees and trade credits to our customers resulting in impairment charges and credit losses have not been a significant factor for Nokia Networks in the past, these may increase in the future, and commercial banks may not continue to be able or willing to provide sufficient long-term financing, even if backed by export credit agency guarantees, due to their own liquidity constraints.

Nokia Networks has used sale of receivables to banks or other financial institutions to improve its liquidity, and any significant change in Nokia Networks' ability to continue this practice could impair our liquidity. Refer to "Liquidity and capital resources" Structured finance and Note 35, Risk management, of our consolidated financial statements included in this annual report on Form 20-F for a more detailed discussion of issues relating to customer financing,

trade credits and related commercial credit risk.

### **Risks related specifically to HERE**

In addition to the other risks described in this section, the following are risks specifically related to our HERE business.

**Our HERE business strategy is subject to risks and uncertainties, including intense competition faced by HERE, and may fail to effectively and profitably invest in new competitive high-quality services and data and bring these to market in a timely manner or adjust its operations efficiently.**

Our HERE business strategy is subject to various risks and uncertainties. HERE net sales are mainly derived from sales to the automotive industry, making it dependent on overall developments in that industry and HERE's ability to remain successful in that industry, for instance through its ability to be a competitive provider of its products and services for the automotive industry. Our HERE business faces intense competition from global companies with different business models as well as certain local companies, and new competitors may enter the location based services market through licensing of map data from other companies or by building their own offering of location data. For example, Google uses an advertising-based model that allows consumers and companies to use parts of its map data and related services in their products free of charge. Google is increasingly competing with our HERE business in the provision of local search and services in the automotive industry. Recently Google has made further advances in the automotive industry, for instance by entering into agreements with various automotive manufacturers and technology companies through the Google driven Open Automotive Alliance. The success of Google's Android platform and search services can result in a competitive advantage for Google when providing local search and other services to the automotive industry. Additionally, certain companies are bringing novel solutions, for instance offering entertainment and information capabilities into vehicles, which can include location intelligence provided by HERE's competitors. Technological developments may make it more economical to build location data and certain of HERE's competitors have resources to invest in building location data. Additionally, certain governmental and quasi-governmental agencies are producing more map data with improved coverage, content, higher quality and available free of charge or at lower prices. Certain crowdsourcing efforts may also result in the availability of competing map data.

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## Operating and Financial review

We made adjustments to the HERE business strategy during 2014. Such strategy changes result in certain operational changes. Such adjustments are costly, potentially disruptive to operations and may not lead to sustainable improvements in overall competitiveness and profitability. For instance, HERE sales efforts and ability to gain new business may suffer as a result of us implementing such changes. Additionally, our HERE business is exposed to various risks and uncertainties, including the following:

- the existing map license data customers may choose not to purchase, or purchase less, content or services from our HERE business. For instance, we may not be able to establish a successful location-based platform through HERE if other competing location-based platforms are preferred by customers and consumers, especially as HERE is a recently launched brand and platform and, as such, may be disadvantaged to more established brands and platforms. Additionally, we may not be able to establish a successful HERE application suite for the platforms we are targeting or attract partners to make the HERE offerings sufficiently competitive;
- HERE net sales and profitability are dependent on developments in the automotive industry, including vehicle sales and adoption of in-vehicle navigation systems. Additionally, customer requirements may result in difficulties or increased costs for our business models. For instance, requirements to tailor solutions for customers may limit our ability to scale our offerings;
- HERE licenses data to vehicle manufacturers for various embedded solutions through the vehicle in-dash unit. Such sales may be negatively affected if the HERE offering is not competitive or through unfavourable industry trends. For instance, HERE may be adversely affected if navigation solutions become more prevalent where the in-dash unit does not include embedded software but relies on navigation beamed through a smartphone or other portable devices;
- HERE has in the past and may going forward continue to invest capturing longer-term transformational growth opportunities. Such investments have an adverse effect on profitability in the short term, and the intended benefits may not be realized as planned or at all;
- HERE strives to be relevant in new and upcoming location-based services, such as augmented reality, new vehicle software systems, and autonomous driving systems. Also, HERE strives to be deeply integrated into vehicle driver assistance systems. If HERE does not succeed in implementing this strategy, or there are unfavourable technical or regulatory developments, our HERE business could be materially and adversely affected. Additionally, investments into any new business opportunities may not yield a return on investment as planned, or at all;

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we may have inaccurately predicted market developments in, or market size of, the automotive navigation and personal navigation devices markets or we may lose market share to other manufacturers or other devices offering navigation solutions, including smartphones;

- HERE's competitiveness may be adversely affected if it is unable to effectively collate, process and analyze data, such as end-user behavioral data, and to derive intelligence from that data, which could be used to enhance its product offering. Our current business models rely on certain centralized data processing solutions and cloud delivery services for distribution of services and software or data storage that are subject to risks and uncertainties. The HERE location cloud operates a cloud-based service model with inherent risks, including those stemming from potential security breaches and applicable regulatory regimes that may cause limitations in cloud-based delivery models or expose us to regulatory or legal actions or limit our ability to conduct intended business. Additionally, HERE may be subject to other IT issues or cybersecurity breaches, resulting, for instance, in disruptions in online service continuity, privacy breaches and security of customer data issues;
- we may not succeed in attracting strategic partners and developers to develop and support our ecosystem around our HERE offering, or provide services that are supported by relevant ecosystems; and
- the offering of HERE maps and software, involves a possibility of product liability, product recall, or warranty 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 or HERE software. In addition, business customers may require us to correct defective data or software, which could be costly, or pay penalties if quality requirements or service level agreements are not satisfied.

The carrying amount of goodwill for HERE is EUR 2.3 billion. We assess the carrying amount of goodwill annually or more frequently if events or changes in circumstances indicate that such carrying amount may not be recoverable. Additionally, we assess the carrying amount of other identifiable assets if events or changes in circumstances indicate that their carrying amounts may not be recoverable. If revenue from our HERE business does not develop as anticipated or new sources of revenue do not materialize as expected, or at all, the HERE business may not generate sufficient positive operating cash flow. This or other factors may lead to the decrease in value of our location-based services and commerce assets, leading to further impairment charges that may adversely affect Nokia, including the goodwill for our HERE business. In the third quarter 2014, we conducted a goodwill impairment assessment related to our HERE business as a result of an adjustment to the HERE strategy and the related new long-term plan. We concluded that these factors resulted in a triggering event requiring an interim impairment test to assess whether events or changes in circumstances indicated that the carrying amount of our goodwill may not be recoverable. As a result of the impairment test, we recorded a charge to operating profit of EUR 1 209 million for the impairment of goodwill. While we believe the estimated recoverable values are reasonable, actual performance in the short and long term could materially differ from our forecasts, which could impact future estimates of the recoverable value for HERE and may result in further impairment charges.

**Our HERE business sales are dependent on the overall automotive market developments and customer business conditions.**

Our HERE business generates net sales through licensing its map data to automotive manufacturers as well as other companies, such as mobile device manufacturers and personal navigation device manufacturers. The licensing fee arrangements vary and they can be fixed for a certain period or vary based on licensee sales. As such, HERE's ability to collect licensing fees is dependent on the success of its licensees and overall market conditions as well as HERE's ability to reach



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## Risk factors continued

successful pricing arrangements. For instance, automotive sales and the overall rate of adoption of navigation systems in cars affect HERE performance. HERE licenses data to vehicle manufacturers for various embedded solutions through the vehicle in-dash unit. Such sales may be negatively affected if HERE's offerings are not competitive or through unfavorable industry trends. For instance, HERE may be adversely affected if navigation solutions become more prevalent where the in-dash unit does not include embedded software but relies on navigation beamed through a smartphone or other portable devices.

The demand for digital map information and other location-based content by automotive and mobile device manufacturers is affected by possible declines in relation to contraction of sales in the automotive and consumer electronics industry. HERE sales and profitability are dependent on the developments of the automobile market, as well as sales of the companies licensing data from HERE. As such, HERE is highly exposed to developments in the automotive market and on general economic conditions both globally and regionally. Adverse developments in the markets in which HERE has a strong position have a more profound effect on HERE.

**Our HERE business sales, especially with respect sales to the automotive industry are derived from a limited number of customers and large multi-year agreements and accordingly a loss of a single customer or issues related to a single agreement, may have a significant impact on HERE.**

HERE relies on agreements with a limited number of customers, especially in the automotive market. As such as large proportion of net sales that HERE generates are historically derived from a limited number of customers. Possible consolidation among existing customers would result in an even greater portion of HERE's net sales being attributable to a smaller number of large customers. Any unfavorable developments in relation to or any change in the applicable agreement terms with a major customer may have a material adverse effect on our business, results of operations and financial condition. The agreements are generally, significant multi-year agreements, where suspension, termination or non-performance by us HERE the agreements may have a material adverse effect on HERE. Additionally, if HERE is not able to renew such agreements, this could have a significant adverse effect on HERE net sales.

**Risks related specifically to Nokia Technologies**

In addition to the other risks described in this section, the following are risks specifically related to our Nokia Technologies business.

**Our patent licensing income and other intellectual property related revenue are subject to risks and uncertainties and will be adversely affected if we are not able to maintain the existing sources of intellectual property related revenue or establish new sources. Additionally, our patent licensing income is dependent on a limited number of key licensees that contribute proportionally significant patent licensing income. Samsung is one of such key licensees of Nokia, and therefore, the outcome of the binding arbitration expected in 2015 may have a significant effect on Nokia's patent licensing income going forward.**

Our products and services include numerous standardized or proprietary patented technologies. We invest significantly in R&D in our businesses to develop new relevant technologies, products and services. Our R&D activities have led to us having one of the industry's strongest intellectual property portfolios in Nokia Technologies,

which our products and services depend on and we also generate revenue by licensing these portfolios or through divesting patents. We seek to renew existing license agreements and negotiate new license agreements especially with mobile device manufacturers, while also seeking to expand the scope of our licensing activities to other industries, in particular those that implement mobile communication technologies. In addition to licensing our SEPs, we seek to increase the licensing of

implementation patents. The continued strength of our portfolio depends on our ability to create new relevant technologies, products and services through our R&D activities. If we fail in creating technologies, products and services that are protected by IPR or if the technologies, products and services do not become relevant and therefore attractive to licensees, the strength of our intellectual property portfolios would be reduced, which could adversely affect our ability to use our intellectual property portfolios for revenue generation.

Despite the steps that we have taken to protect our technology investments with IPR, 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 IPR will be sufficiently broad to protect our innovations. Third parties may infringe our intellectual property relating to our proprietary technologies or disregard their obligation to seek a license under our SEPs or seek to pay less than reasonable license fees for such.

We enforce our patents against unlawful infringement and generate revenue through realizing the value of our intellectual property by entering into license agreements and through patent divestment transactions. Patent license agreements can cover both licensee's past and future sales. The portion of the income that relates to licensee's past sales is not expected to have a recurring benefit and ongoing patent income from licensing is generally subject to various factors that we have little or no control over, for instance sales by the licensees. There are no assurances that our actions to generate intellectual property-related revenue will lead to favorable outcomes, such as patent license agreements on favorable terms to us or that we would be able to use our patent portfolio for revenue generation to a similar extent going forward. While we have various licensees, a significant portion of licensing revenues is generated from a limited number of licensees and, as such, issues, agreement renewal, licensee business performance or bankruptcies affecting these select licensees could have a significant impact on our revenue. We have mainly focused on licensing our SEPs, but may seek to license other IPR, including implementation patents and other forms of intellectual property. However, there can be no assurances that we will be successful in our effort to broaden the scope of our intellectual property licensing programs.

Samsung is a significant licensee of Nokia. In November, 2013, Nokia announced that Samsung has extended a patent license agreement between Nokia and Samsung for five years. The agreement would otherwise have expired at the end of 2013. According to the agreement, Samsung will pay additional compensation to Nokia for the period commencing on January 1, 2014, and the amount of such compensation shall be finally settled in binding arbitration, which is expected to be concluded during 2015. Due to the nature of arbitration proceedings, there can be no assurance as to the final outcome or timing of a final resolution.

We retained our entire patent portfolio upon the Sale of the D&S Business. In the past, parts of our intellectual property creation were driven by the innovation stemming from the Devices & Services business. As we no longer own this business, this may lead to a reduced level of intellectual property creation or a reduction in the relevance of Nokia's intellectual property to the technology sector.

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Operating and Financial review

Nokia may also have a diminished ability to influence industry trends and technology selections, reducing the relevance of our intellectual property portfolio.

Additionally, our intellectual property related revenue could be adversely affected if we are unable to successfully maintain or broaden the scope of licensees or contribute to future innovations and creation of intellectual property. Due to various reasons including those that are set out above, our intellectual property related revenue can vary considerably from time to time and there is no assurance that past levels are indicative of future levels of intellectual property related revenue.

**Licensing our patents or other IPR portfolio and otherwise monetizing our intellectual property assets relies on adequate regulatory protection for patented or other propriety technologies.**

Any patents or other IPR that may be challenged, invalidated or circumvented, and any right granted under our patents may not provide competitive advantages for us. Our ability to protect our intellectual property is dependent on regulatory developments in various jurisdictions and the implementation of the regulations by administrative bodies. Our ability to protect and license our patented innovations varies by region. In the technology sector generally, certain licensees are actively avoiding license payments, and certain licensors are using aggressive methods to collect license payments, both behaviors attracting regulatory attention. Authorities in various countries have started paying increasing attention to the patent licensing and may aim to influence terms on which patent licensing arrangements are executed. Such terms may be limited to a certain country or region, however certain authorities may aim to widen the scope and even impose global terms. Such terms may have an adverse effect on us and limit our ability to monetize our patent portfolio. As such, regulatory developments, actions by authorities, or applications of regulations may adversely affect our ability to protect our intellectual property or create intellectual property related revenue.

Intellectual property related disputes and litigation are common in the technology industry and are often used to enforce patents and seek licensing fees. 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 enforceable, which could have an adverse effect on our competitive position. The outcome of court proceedings is difficult to predict and, as such, our ability to use intellectual property for revenue generation is at times dependent on favorable court rulings. In addition, 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 IPR. Even if such a patent challenge is not successful, the related proceedings could be expensive and time-consuming, divert the attention of our management and technical expert employees from our business and have an adverse effect on our reputation. Any diminution of the protection that our own IPR enjoy could cause us to lose some of the benefits of our investments in R&D.

Due to various reasons, including the aforementioned, Nokia Technologies patent licensing income can be negatively affected by regulatory changes or developments in the trends regarding the protection of IPR, for instance through court rulings. Additionally, if potential licensees to Nokia Technologies operate in markets where the ability of protecting and licensing patented

innovations is difficult, Nokia Technologies may not be able to obtain patent licensing income from such companies.

**The Nokia Technologies business aims to generate net sales and profitability through business areas such as technology licensing, licensing the Nokia brand and other business ventures including technology innovation and incubation, which may not materialize as planned or at all.**

In addition to participating in its current business fields, Nokia Technologies pursues new business opportunities building on Nokia innovations and the Nokia brand. Nokia Technologies develops and licenses various innovations. In addition to patent licensing, Nokia Technologies is focused on generating net sales and profits through Technology Licensing, licensing proprietary technologies to enable our customers to build better products, brand licensing to help our customers leverage the value of the Nokia brand in consumer devices and other business ventures including technology innovation and incubation, focused on developing new ideas and prototypes.

The industries in which we aim to operate are generally fast-paced and innovative industries. The industries are at different levels of maturity, and there can be no assurances that the investments we make will result in the intended benefits. Our business may require significant investments to innovate and grow successfully. Such investments may include R&D, licensing arrangements, acquiring businesses and technologies, recruiting specialized expertise and partnering with third parties. Such investments may not, however, result in technologies, products or services that achieve or retain broad or timely market acceptance or are preferred by our customers and consumers. As such, the investments may not be profitable or achieve the targeted rates of return. There can be no assurance that we will be able to identify and understand the key market trends and user segments enabling us to address customers' and consumers' expanding needs in order to bring new innovative and competitive products and services to market in a timely manner. If we are unable to anticipate and respond in a timely manner to these key market trends, or to actively drive future trends through our product development processes, we may not achieve the intended strategic goals of Nokia Technologies.

There can be no assurances as to whether Nokia Technologies will be successful in its efforts at innovation and incubation or in generating net sales and profits through its business plans, for instance in brand licensing and technology licensing.

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Corporate governance statement

This corporate governance statement is prepared in accordance with Chapter 7, Section 7 of the Finnish Securities Markets Act (2012/746, as amended) and recommendation 54 of the Finnish Corporate Governance Code 2010 (the Finnish Corporate Governance Code ).

### **Regulatory framework**

Nokia's corporate governance practices comply with Finnish laws and regulations as well as with Nokia's Articles of Association. Nokia also complies with the Finnish Corporate Governance Code, available at [www.cgfinland.fi](http://www.cgfinland.fi), with the following exception:

In 2014, Nokia was not in full compliance with recommendation 39 of the Finnish Corporate Governance Code, as Nokia's Restricted Share Plans did not include performance criteria but were time-based only, with a restriction period of at least three years from the grant. Restricted shares are granted only for exceptional retention and recruitment purposes aimed to ensure Nokia is able to retain and recruit talent vital to its future success. In the Restricted Share Plan 2014, the number of shares to be granted was reduced significantly and they are no longer granted regularly. Similarly, under the Restricted Share Plan 2015, restricted shares are only used on a highly limited basis and only in exceptional retention and recruitment circumstances.

Nokia complies with corporate governance standards, which are applicable due to listing of its shares on the Helsinki stock exchange, Nasdaq Helsinki. Furthermore, as a result of the listing of its shares on the New York Stock Exchange (also NYSE ) and its registration under the US Securities Exchange Act of 1934, Nokia must comply with the US federal securities laws and regulations, including the Sarbanes-Oxley Act of 2002 as well as the requirements of the NYSE, in particular the corporate governance standards under Section 303A of the New York Stock Exchange Listed Company Manual, which is available at <http://nysemanual.nyse.com/lcm/>. Nokia complies with these standards to the extent such provisions are applicable to foreign private issuers.

The Board represents and is accountable to the shareholders of Nokia. The Board's responsibilities are active, not passive, and include evaluating the strategic direction of Nokia, its management policies and their effective implementation by management.

To the extent any non-domestic rules and regulations would require a violation of the laws of Finland, Nokia is obliged to comply with Finnish law and requirements. There are no significant differences in the corporate governance practices applied by Nokia compared to those applied by US companies under the New York Stock Exchange corporate governance standards, with the exception that Nokia complies with the requirements of Finnish law with respect to the approval of equity compensation plans. Under Finnish law, stock option plans require shareholder approval at the time of their launch. All other plans that include the delivery of company stock in the form of newly-issued shares or treasury shares require shareholder approval at the time of the delivery of the shares, unless the

shareholder approval has been granted through an authorization to the Board, a maximum of five years earlier. The New York Stock Exchange corporate governance standards require that the equity compensation plans be approved by a company's shareholders. Nokia aims to minimize the necessity for, or consequences of, conflicts between the laws of Finland and applicable non-domestic requirements.

The Board has also adopted Corporate Governance Guidelines to reflect Nokia's commitment to good corporate governance. Nokia's Corporate Governance Guidelines are available on our website at [company.nokia.com/en/about-us/corporate-governance](http://company.nokia.com/en/about-us/corporate-governance).

### **Main corporate governance bodies of Nokia**

Pursuant to the provisions of the Finnish Limited Liability Companies Act (2006/624, as amended) (the Finnish Companies Act) and Nokia's Articles of Association, the control and management of Nokia is divided among the shareholders at a general meeting, the Board, the President and CEO and the Nokia Group Leadership Team, chaired by the President and CEO.

### **General Meeting of shareholders**

The shareholders may exercise their decision-making power and their right to speak and ask questions at the general meeting of shareholders. Each Nokia share entitles a shareholder to one vote at general meetings of Nokia. Pursuant to the Finnish Companies Act, an Annual General Meeting must be convened by June 30 annually.

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### **Corporate governance framework**

The Annual General Meeting decides, among other things, on the election and remuneration of the Board, the adoption of annual accounts, the distribution of profit shown on the balance sheet, discharging the members of the Board and the President and CEO from liability as well as on the election and fees of the external auditor.

In addition to the Annual General Meeting, an Extraordinary General Meeting shall be convened when the Board considers such meeting to be necessary, or, when the provisions of the Finnish Companies Act mandate that such a meeting must be held.

### **Board of Directors**

The operations of Nokia are managed under the direction of the Board, within the framework set by the Finnish Companies Act and Nokia's 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.

### **Responsibilities of the Board of Directors**

The Board represents and is accountable to the shareholders of Nokia. The Board's responsibilities are active, not passive, and include the responsibility to evaluate the strategic direction of Nokia, its management policies and the effectiveness of the implementation of such by the management on a regular basis. 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 a manner which they reasonably and honestly believe to be in the best interests of Nokia and its shareholders. In discharging that obligation, the members of the Board must inform themselves of all relevant information reasonably available to them. The Board and each Board Committee also has the power to appoint independent legal, financial or other advisers as they deem necessary from time to time.

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 that are not to be exceeded without separate Board approval.

In risk management policies and processes, the Board's role includes risk analysis and assessment in connection with financial, strategy and business reviews, updates and decision-making proposals. Risk management policies and processes are an integral part of Board deliberations. For a more detailed description of Nokia's risk management policies and processes, refer to [Main features of the internal control and risk management systems in relation to the financial reporting process](#) below.

The Board has the responsibility for appointing and discharging the President and CEO and the other members of the Nokia Group Leadership Team. On April 29, 2014, Nokia announced its new strategy and consequently, changes to its leadership. The Board appointed, effective as of May 1, 2014 Rajeev Suri as President and CEO of Nokia. His rights and responsibilities include those allotted to the President under Finnish law and he also chairs the Nokia Group Leadership Team.

Subject to the requirements of Finnish law, the independent directors of the Board confirm the compensation and terms of employment of the President and CEO upon the recommendation of the Personnel Committee. The compensation and employment conditions of the other members of the Nokia Group Leadership Team are approved by the Personnel Committee upon the recommendation of the President and CEO.

The Board has three committees: the Audit Committee, the Personnel Committee and the Corporate Governance and Nomination Committee. These committees assist the Board in its duties pursuant to their respective committee charters. The Board elects, and 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 upon each committee's member qualification standards. 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.

In line with Nokia's Corporate Governance Guidelines, the Board conducts annual performance evaluations, which also include evaluations of the Board Committees' work. In 2014, the Board conducted an evaluation process consisting of self-evaluations and peer evaluations, as well as interviews. The feedback from selected members of management was also requested as part of this evaluation process. The results of the evaluation are discussed by the entire Board.

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Corporate governance statement continued

**Election and composition of the Board of Directors**

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 term beginning at the Annual General Meeting in which they are elected and expiring at the close of the following Annual General Meeting. The Annual General Meeting convenes by June 30 annually.

The Annual General Meeting held on June 17, 2014 elected the following nine members to the Board: Vivek Badrinath, Bruce Brown, Elizabeth Doherty, Jouko Karvinen, Mårten Mickos, Elizabeth Nelson, Risto Siilasmaa, Kari Stadigh and Dennis Strigl. More information on the members of the Board can be found on pages 97 to 99 of this annual report on Form 20-F and on our website at [company.nokia.com/en/about-us/corporate-governance](http://company.nokia.com/en/about-us/corporate-governance).

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 June 17, 2014, the independent directors of the Board elected Risto Siilasmaa to continue to serve as the Chairman and Jouko Karvinen as the Vice Chairman of the Board. The Chairman of the Board has certain specific duties as stipulated by Finnish law and our Corporate Governance Guidelines. The Vice Chairman of the Board of Directors assumes the duties of the Chairman of the Board in the event he or she is prevented from performing his or her duties.

Nokia does not have a policy concerning the combination or separation of the roles of the Chairman of the Board and the President and CEO, but the leadership structure is dependent on the company needs, shareholder value and other relevant factors applicable from time to time, while respecting the highest corporate governance standards. In 2014, through to April 30, 2014, Timo Ihamuotila served as the interim President and Risto Siilasmaa served as the interim CEO while continuing in their roles of the Chief Financial Officer and Chairman of the Board, respectively. As of May 1, 2014, Rajeev Suri was appointed as the President and CEO, while Risto Siilasmaa continued as the Chairman of the Board.

The current members of the Board are all non-executive. For the term of the Board that began at the Annual General Meeting in 2014, seven of the nine non-executive Board members were determined to be independent as defined by the Finnish Corporate Governance Code as well as by the rules of the New York Stock Exchange. Mårten Mickos was determined not to be independent under both the Finnish Corporate Governance Code and the rules of the New York Stock Exchange due to his position as Chief Executive Officer of Eucalyptus Systems, Inc. that had a business relationship with Nokia. The Chairman of the Board, Risto Siilasmaa, was determined not to be independent under Finnish Corporate Governance Code due to his position as interim CEO of Nokia from September 3, 2013 through to April 30, 2014. Under the rules of the New York Stock Exchange Mr. Siilasmaa was determined to be independent upon the termination of his interim CEO position. For the term starting at the Annual General Meeting in 2015, all Board member candidates have been determined to be independent under the rules of the Finnish Corporate Governance Code and the New York Stock Exchange. As is customary, any changes impacting the independence assessment will be assessed as of the Annual General Meeting date.

**Meetings of the Board of Directors**

The Board held 17 meetings excluding committee meetings during 2014, of which approximately half were regularly scheduled meetings held in person, complemented by meetings via video or conference calls or other means. Additionally, in 2014, the non-executive directors held meetings regularly without management in connection with scheduled Board meetings. Also, the independent directors held one separate meeting in 2014.

Directors' attendance at the Board meetings, including Committee meetings but excluding meetings among the non-executive directors or independent directors only, in 2014 is set forth in the below table:

	<b>Board meetings %</b>	<b>Audit Committee meetings %</b>	<b>Personnel Committee meetings %</b>	<b>Corporate Governance &amp; Nomination Committee meetings %</b>
Vivek Badrinath (as of June 17, 2014)	100	100		
Bruce Brown	100		100	100
Elizabeth Doherty	100	90		
Henning Kagermann (until June 17, 2014)	86		100	100
Jouko Karvinen	100	100		100
Helge Lund (until June 17, 2014)	57		75	75
Mårten Mickos	100			
Elizabeth Nelson	94	100		
Risto Siilasmaa	100			
Kari Stadigh	100		86	100
Dennis Strigl (as of June 17, 2014)	90		100	

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### Corporate governance

In addition, many of the directors attended as non-voting observers in 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 these meetings, 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 in 2014, except for Bruce Brown, attended Nokia's Annual General Meeting held on June 17, 2014. The Finnish Corporate Governance Code recommends that the Chairman of the Board and a sufficient number of directors attend the general meeting of shareholders to ensure the possibility for the shareholders to exercise their right to present questions to both the Board and management.

### **Further Information**

The Corporate Governance Guidelines concerning the directors' responsibilities, the composition and election of the members of the Board, its committees and certain other matters relating to corporate governance are available on Nokia's website at [company.nokia.com/en/about-us/corporate-governance](http://company.nokia.com/en/about-us/corporate-governance). Furthermore, Nokia has a Code of Conduct which is equally applicable to all Nokia employees, directors and management and, in addition, Nokia has a Code of Ethics applicable to the President and CEO, Group Chief Financial Officer and Corporate Controller. These documents and the charters of the Audit Committee, the Personnel Committee and the Corporate Governance and Nomination Committee are available on our website at [company.nokia.com/en/about-us/corporate-governance](http://company.nokia.com/en/about-us/corporate-governance).

### **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 as stipulated by Finnish law and the rules of the stock exchanges where Nokia shares are listed, i.e. Nasdaq Helsinki and the NYSE. As of June 17, 2014, the Audit Committee has consisted of the following four members of the Board: Jouko Karvinen (Chairman), Vivek Badrinath, Elizabeth Doherty and Elizabeth Nelson.

The Audit Committee is established by the Board primarily for the purpose of oversight of accounting and financial reporting processes of Nokia and the audits of its financial statements. The Committee is responsible for assisting the Board in the oversight of: (1) the quality and integrity of company's financial statements and related disclosures; (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 Nokia employees of concerns relating to accounting or auditing matters. Nokia's disclosure controls and procedures, which are reviewed by the Audit Committee and approved by the President and CEO and the Group Chief Financial Officer, as well as the 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.

For further information on internal control over financial reporting, refer to Main features of the internal control and risk management systems in relation to the financial reporting process below.

Under Finnish law, an external auditor is elected by shareholders by a simple majority vote at the Annual General Meeting for one fiscal year at a time. The Audit Committee proposes to the shareholders, upon its evaluation of the qualifications and independence of the external auditor, the nominee for election or re-election. Under Finnish law, the fees of the external auditor are also approved by the 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 Nokia's external auditor, PricewaterhouseCoopers, during 2014, refer to the Auditor fees and services Fees and services section below.



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Corporate governance statement continued

In discharging its oversight role, the Audit Committee has full access to all company books, records, facilities and personnel. The Committee may appoint counsel, auditors or other advisers in its sole discretion, and must receive appropriate funding, as determined by the Audit Committee, from Nokia for the payment of compensation to such outside advisers.

The Board has determined that all members of the Audit Committee, including its Chairman, Jouko Karvinen, are audit committee financial experts as defined in the requirements of Item 16A of an annual report on Form 20-F filed with the U.S. Securities and Exchange Commission (SEC). Mr. Karvinen and each of the other members of the Audit Committee are independent directors as defined in Section 303A.02 of the New York Stock Exchange Listed Company Manual.

The Audit Committee meets a minimum of 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 direct access to the Audit Committee, without involvement of management.

The Audit Committee held ten meetings in 2014. The average attendance at the meetings was 98%. In addition, any director who so wishes may attend meetings of the Audit Committee as a non-voting observer.

**The Personnel Committee** consists of a minimum of three members of the Board who meet all applicable independence requirements as stipulated by Finnish law and the rules of the stock exchanges where Nokia shares are listed, i.e. Nasdaq Helsinki and the NYSE. As of June 17, 2014, the Personnel Committee has consisted of the following three members of the Board: Bruce Brown (Chairman), Kari Stadigh and Dennis Strigl.

The primary purpose of the Personnel Committee is to oversee the personnel related policies and practices at Nokia, as described in the Committee charter. It assists the Board in discharging its responsibilities in relation 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 terms of employment; (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 to contribute to the long-term shareholder value creation and alignment to shareholders' interests, properly motivate management, and support overall corporate strategies. The Committee is responsible for the review of senior management development and succession plans.

The Personnel Committee held seven meetings in 2014. The average attendance at the meetings was 92%. In addition, any director who so wishes may attend meetings by the Personnel Committee as a non-voting observer.

For further information on the activities of the Personnel Committee, refer to "Compensation governance practices" on page 108.

**The Corporate Governance and Nomination Committee** consists of three to five members of the Board who meet all applicable independence requirements as stipulated by Finnish law and the rules of the stock exchanges where

Nokia shares are

listed, i.e. Nasdaq Helsinki and the NYSE. As of June 17, 2014, the Corporate Governance and Nomination Committee has consisted of the following three members of the Board: Jouko Karvinen (Chairman), Bruce Brown and Kari Stadigh.

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: (1) actively identifying individuals qualified to be elected members of the Board as well as considering and evaluating the appropriate level and structure of director remuneration; (2) proposing the director nominees to the shareholders for election at the Annual General Meeting as well as the director remuneration; (3) monitoring significant regulatory and legal developments as well as in the practice of corporate governance and of the duties and responsibilities of directors of public companies; (4) assisting the Board and each Committee of the Board in its annual performance evaluations, including establishing criteria to be applied in connection with such evaluations; (5) developing and recommending to the Board and administering Nokia's Corporate Governance Guidelines; and (6) reviewing Nokia's disclosure in the corporate governance statement.

The Committee has the power to appoint search firms or advisers to identify appropriate candidates. The Committee may also appoint counsel or other advisers, as it deems appropriate from time to time. The Committee has the sole authority to appoint or terminate the services of such search firms or advisers and to review and approve such search firm or adviser's fees and other retention terms. It is the Committee's practice to appoint a search firm to identify new director candidates.

The Corporate Governance and Nomination Committee held six meetings in 2014. The average attendance at the meetings was 95%. In addition, any director who so wishes may attend meetings by the Corporate Governance and Nomination Committee as a non-voting observer.

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Corporate governance

### **Nokia Group Leadership Team and the President and CEO**

Under its Articles of Association, Nokia has a Nokia Group Leadership Team that is responsible for the operative management of Nokia. The Chairman and members of the Nokia Group Leadership Team are appointed by the Board. Nokia Group Leadership Team is chaired by the President and CEO. The President and CEO's rights and responsibilities include those allotted to the President under Finnish law.

More information on the members of Nokia Group Leadership Team is available on pages 100 to 102 of this annual report on Form 20-F and on our website at [company.nokia.com/en/about-us/corporate-governance](http://company.nokia.com/en/about-us/corporate-governance).

### **Main features of the internal control and risk management systems in relation to the financial reporting process**

The Board's 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 also has a Risk Management Policy which outlines Nokia's risk management policies and processes more extensively and which is approved by the Audit Committee. Overseeing risk is an integral part of Board deliberations. The Board's role in overseeing risk includes risk analysis and assessment in connection with financial, strategy and business reviews, updates and decision-making proposals. Nokia applies a systematic approach to risk management across business operations and processes with the Nokia strategy and financial plans approved by the Board as a baseline. Accordingly, risk management at Nokia is not a separate process, rather a normal daily business and management practice.

The management is responsible for establishing and maintaining adequate internal control over financial reporting for Nokia. Nokia's internal control over financial reporting is designed to provide reasonable assurance to the management and the Board regarding the reliability of financial reporting and the preparation and fair presentation of published financial statements.

The management conducts a yearly assessment of Nokia's internal controls over financial reporting in accordance with the Committee of Sponsoring Organizations ( COSO ) framework (2013 version) and the Control Objectives for Information and related Technology of internal controls. For 2014, the assessment was performed based on a top down risk assessment of Nokia's financial statements covering significant accounts, processes and locations, corporate level controls, control activities and information systems' general controls.

As part of its assessment the management documented:

- the corporate-level controls, which create the tone from the top containing the Nokia values and Code of Conduct and provide discipline and structure to decision making processes and ways of working. Selected items from Nokia's operational mode and governance principles are separately documented as corporate level controls;

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the control activities, which consist of policies and procedures to ensure the management's directives are carried out and the related documentation is stored according to Nokia's document retention practices and local statutory requirements;

- the information systems' general controls to ensure that sufficient information technology general controls, including change management, system development and computer operations, as well as access and authorizations, are in place; and
- the significant processes, including seven financial cycles and underlying IT cycle, identified by Nokia to address control activities implementing a top down risk based approach. These cycles include revenue cycle, inventory cycle, purchase cycle, treasury cycle, human resources cycle, record to report cycle, tax cycle and IT cycle. Financial cycles have been designed to: (i) give a complete end-to-end view of all financial processes; (ii) identify key control points; (iii) identify involved organizations; (iv) ensure coverage for important accounts and financial statement assertions; and (v) enable internal control management within Nokia.

Further, the management also:

- assessed the design of the controls in place aimed at mitigating the financial reporting risks;
- tested operating effectiveness of all key controls;
- evaluated all noted deficiencies in internal controls over financial reporting in the interim and as of year-end; and
- performed a quality review on assessment documentation and provided feedback for improvement.

In conclusion, the management has assessed the effectiveness of Nokia's internal control over financial reporting, at December 31, 2014, and concluded that such internal control over financial reporting is effective.

Nokia also has an internal audit function that acts as an independent appraisal function by examining and evaluating the adequacy and effectiveness of Nokia's system of internal control. Internal audit resides within the Group Chief Financial Officer's organization and reports to the Audit Committee of the Board. The head of the internal audit function has direct access to the Audit Committee, without involvement of the management.