

BASE PROSPECTUS



NOKIA CORPORATION

(incorporated as a public limited liability company in the Republic of Finland)

EUR 5,000,000,000 Euro Medium Term Note Programme

This Base Prospectus has been approved by the Central Bank of Ireland (the "**Central Bank**") as competent authority under Directive 2003/71/EC, as amended or superseded (the "**Prospectus Directive**"). The Central Bank only approves this Base Prospectus as meeting the requirements imposed under Irish and EU law pursuant to the Prospectus Directive. Such approval relates only to the issue of notes ("**Notes**") issued under the Euro Medium Term Note Programme (the "**Programme**") described in this Base Prospectus which are to be admitted to trading on a regulated market for the purposes of the Directive 2014/65/EU (the "**Markets in Financial Instruments Directive**") and/or which are to be offered to the public in any Member State of the European Economic Area. Application has been made for Notes issued under the Programme during the period of 12 months after the date hereof to be admitted to the Official List of Euronext Dublin (the "**Official List**") and to trading on its regulated market. The maximum aggregate principal amount of Notes outstanding at any one time under the Programme will not exceed EUR 5,000,000,000 (as further described herein).

References in this Base Prospectus to Notes being "**listed**" (and all related references) shall mean that such Notes have been admitted to trading on Euronext Dublin's regulated market and have been listed on Euronext Dublin. References in this Base Prospectus to "**Euronext Dublin**" (and all related references) shall mean the regulated market of the Irish Stock Exchange plc trading as Euronext Dublin.

The Programme will be rated by Standard and Poor's Credit Market Services Europe Limited ("**S&P**") and Moody's Investors Service Ltd. ("**Moody's**"). Each of S&P and Moody's is established in the European Union and is registered under Regulation (EC) No. 1060/2009, as amended, on credit rating agencies (the "**CRA Regulation**"). Nokia Corporation (the "**Issuer**") is rated by S&P and Moody's. Tranches of Notes to be issued under the Programme may be rated or unrated. Where a Tranche of Notes is to be rated, such rating will not necessarily be the same as the rating assigned to Notes already issued. A credit rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, reduction or withdrawal at any time by the relevant credit rating agency.

Amounts payable on Floating Rate Notes will be calculated by reference to one of LIBOR, EURIBOR, NIBOR or STIBOR as specified in the relevant Final Terms. As at the date of this Base Prospectus, ICE Benchmark Administration (as the administrator of LIBOR) is included in ESMA's register of administrators under Article 36 of the Regulation (EU) No. 2016/1011 (the "**Benchmarks Regulation**"). As at the date of this Base Prospectus, the administrators of EURIBOR, NIBOR and STIBOR are not included in ESMA's register of administrators under Article 36 of the Benchmarks Regulation. As far as the Issuer is aware, the transitional provisions in Article 51 of the Benchmarks Regulation apply, such that the administrators of EURIBOR, NIBOR and STIBOR are not currently required to obtain authorisation/registration (or, if located outside the European Union, recognition, endorsement or equivalence).

Investing in Notes issued under the Programme involves certain risks. The principal risk factors that may affect the abilities of the Issuer to fulfil its obligations under the Notes are discussed under "Risk Factors" below.

Arranger
Deutsche Bank

Dealers

Citigroup
Goldman Sachs International

Deutsche Bank
J.P. Morgan

1 March 2019

CERTAIN DEFINITIONS AND PRESENTATION OF FINANCIAL AND OTHER INFORMATION

Nokia Corporation is a public limited liability company incorporated in the Republic of Finland. In this Base Prospectus, all references to "Nokia", "we", "us", "our" or "the Group" are to Nokia Corporation and its consolidated subsidiaries and generally to Nokia's Continuing operations, except where it is made clear that the term means Nokia Corporation or a particular subsidiary or business segment only or our Discontinued operations. "Continuing operations" refers to the Continuing operations following the acquisition of Alcatel Lucent, the Sale of the HERE Business in 2015 and the Sale of the Devices & Services ("D&S") Business in 2014. "Discontinued operations" mainly refers to the divestment of our HERE business to an automotive consortium and the sale of substantially all of our Devices & Services business to Microsoft.

References to Nokia's "shares", matters relating to Nokia's shares or matters of Nokia's corporate governance, refer to the shares and corporate governance of Nokia Corporation. All references to the "Issuer" are to Nokia Corporation and not to any of its subsidiaries.

In this Base Prospectus, unless otherwise specified, references to a "Member State" are references to a Member State of the European Economic Area, references to "U.S.\$", "USD", "U.S. dollars", "\$" or "dollars" are to United States dollars, references to "EUR", "euro" or "€" are to the lawful currency of the Member States that have adopted the single currency in accordance with the Treaty establishing the European Community, as amended by the Treaty on European Union, references to "Sterling", "£" and "GBP" are to the currency of the United Kingdom, references to "Japanese Yen" and "JPY" are to the currency of Japan, and references to "Swiss Francs" and "CHF" are to the currency of Switzerland.

In this Base Prospectus, "Sale of the HERE Business" refers to the transaction announced on 3 August 2015 and closed on 4 December 2015 where Nokia sold HERE, Nokia's digital mapping and location services business, to a German automotive industry consortium comprising AUDI AG, BMW Group and Daimler AG ("Consortium"). The HERE business was reported as discontinued operations from the third quarter of 2015 onwards. See "*Description of Nokia — Discontinued Operations*".

The "Sale of the D&S Business" refers to our sale of substantially all of our Devices & Services business to Microsoft in a transaction that was completed on 25 April 2014.

The "Acquisition of Alcatel Lucent" refers to the completion of our acquisition of Alcatel Lucent on 4 January 2016.

In this Base Prospectus, references to our "continuing operations" are to Nokia's Networks business and Nokia Technologies. As at the date of this Base Prospectus, Nokia has two businesses: Nokia's Networks business and Nokia Technologies, and three reportable segments for financial reporting purposes: (1) Networks, (2) Nokia Software (the "Networks business") and (3) Nokia Technologies. Segment-level information for Group Common and Other, which comprises Group-wide support functions and certain unallocated businesses, is also presented in our financial information.

Prior to 1 April 2017, Nokia had three reportable segments for management reporting purposes: Ultra Broadband Networks and IP/Networks and Applications within Nokia's Networks business, and Nokia Technologies. Ultra Broadband Networks was comprised of two aggregated operating segments: Mobile Networks and Fixed Networks, and IP Networks and Applications were comprised of two aggregated operating segments: IP/Optical Networks and Applications and Analytics. On 1 February 2018, Nokia announced that it would rename its Applications & Analytics business group as Nokia Software, to better reflect its strategy and focus on building a strong, standalone software business. On 17 March 2017, Nokia announced changes in its organisational structure which included the separation of Nokia's former Mobile Networks operating segment into two distinct operating segments: one focused on products and solutions, called Mobile Networks, and the other on services, called Global Services. The Global Services operating segment is comprised of the services that resided within the previous Mobile Networks operating segment, including company-wide managed services. Global Services does not include the services of Fixed Networks, IP/Optical Networks and Nokia Software, which continue to reside within the respective operating segments.

On 1 January 2018, Nokia adopted IFRS 9, *Financial Instruments* and IFRS 15, *Revenue from Contracts with Customers*. In accordance with the transitional provisions of IFRS 9 and IFRS 15, Nokia has not restated prior year comparatives but has presented the cumulative effect of adopting both standards as transition adjustments to the opening balance of other comprehensive income and retained earnings as at 1 January 2018. The impact of the adoption of these new standards on Nokia's consolidated financial statements and the resulting changes to

Nokia's accounting policies are described in detail in Note 14, New accounting standards in Nokia's unaudited consolidated interim financial statements, which form part of Nokia's financial report as at and for the three and twelve months ended 31 December 2018 and which is incorporated by reference. See "*Information Incorporated by Reference*". Other amendments and interpretations that became effective on 1 January 2018, did not have a material impact on Nokia's consolidated financial statements.

New financial reporting structure beginning Q1 2019

As at the first quarter 2019, Nokia has three reportable segments: (1) Networks, (2) Nokia Software and (3) Nokia Technologies. In addition, Nokia will disclose segment level data for Group Common and Other.

In addition, Nokia will provide net sales disclosure for the following businesses: (1) Mobile Access, (2) Fixed Access, (3) IP Routing and (4) Optical Networks, which together comprise the new Networks reportable segment. Nokia will also provide separate net sales disclosure for its different customer types: (1) Communication Service Providers, (2) Enterprises and (3) Licensees. Net sales by region will be provided at the Nokia level. To provide a basis for comparison, Nokia will present a recasting of financial results on an unaudited basis for all four quarters of 2018 prior to publishing its Q1 2019 financial report. Note that certain reclassifications will be made in order to reflect the new organisational structure of the company, the most significant of which are: (i) activities related to our cloud core offering will be reclassified from the former Mobile Networks business group and former Global Services reportable segment to the new Nokia Software reportable segment and (ii) activities related to the former Mobile Networks business group and former Global Services reportable segment that are not reclassified to the new Nokia Software reportable segment will be reported together under the new Mobile Access business.

2016 Financial Information

Nokia reviewed its allocation of expenses across functions, and as at the first quarter 2017, Nokia changed its allocation method to reflect activity-based allocation drivers for certain common costs, which resulted in changes in presentation of certain expenses by function. In addition, as a result of the Acquisition of Alcatel-Lucent, Nokia's foreign exchange hedging activities were reviewed in order to develop harmonised hedging practices. Accordingly, as at the first quarter 2017, all gains and losses from hedging operative forecasted net foreign exchange exposures have been recorded in other income and expenses, regardless of whether hedge accounting is applied or not. Previously, these hedging gains and losses were recorded primarily as an adjustment to net sales if cash flow hedge accounting was applied.

Due to these changes in the consolidated income statement presentation, Nokia's 2016 consolidated income statement incorporated by reference to this Base Prospectus has been restated and presented on a restated basis as comparative information in Nokia's 2017 financial statements (also incorporated by reference) as follows:

- A net loss of EUR 27 million relating to hedging gains and losses has been reclassified from Net sales to Other expenses (EUR 28 million) and Other income (EUR 1 million).
- EUR 41 million of Cost of sales and EUR 52 million of Selling, general and administrative expenses relating to certain common costs have been reclassified to Research and development expenses.

The impact of these adjustments to the audited 2016 consolidated financial statements are not considered to be material. The restated amounts are unaudited.

Changes in Accounting Standards

On 1 January 2018, Nokia adopted IFRS 9, *Financial Instruments* and IFRS 15, *Revenue from Contracts with Customers*. The nature of new standards, impact of adoption on Nokia's consolidated financial statements and changes to Nokia's accounting policies resulting from the adoption are described in detail in note 14, "New accounting standards" in the Issuer's financial report as at and for the three and twelve months ended 31 December 2018. Other amendments and interpretations that became effective on 1 January 2018, did not have a material impact on Nokia's consolidated financial statements.

IFRS 16, *Leases*, ("**IFRS 16**") was issued in January 2016 and it sets out the requirements for the recognition, measurement, presentation and disclosure of leases. IFRS 16 provides a single lessee accounting model, requiring lessees to recognise right-of-use assets and lease liabilities for most leases, excluding short-term

leases, in the consolidated statement of financial position. Nokia adopted IFRS 16 on the effective date of 1 January 2019 using the cumulative catch-up transition method. In accordance with the IFRS 16 transition guidance, comparative information will not be restated. On adoption, all right-of-use assets (prior to adjustment for prepaid assets, accrued lease payments and onerous lease contract provisions) will be recorded with an equivalent value recorded for the related lease liabilities. Key judgments and estimates used under IFRS 16 primarily relate to the evaluation of lease terms and the use of discount rates. In the consolidated financial statements for the quarter ended 31 December 2018, Nokia disclosed non-cancellable operating lease commitments of EUR 1,099 million, of which the majority relates to real estate operating lease commitments. Nokia expects that the non-cancellable operating lease commitments calculated in accordance with current lease accounting requirements will differ from the lease liabilities recorded as part of the adoption of IFRS 16.

Nokia expects that the adoption of IFRS 16 will slightly increase operating profit as the interest component on the lease payments will be recognised in financial income and expenses. In the consolidated statement of cash flows, cash flow from operating activities is expected to increase as the principal component of lease payments will now be recorded within cash flows from financing activities. The impact of IFRS 16 adoption on total equity is not expected to be material. Nokia's activities as a lessor are not material and hence Nokia does not expect any material impact on the consolidated financial statements related to such activities.

For additional information, see note 1 "Basis of preparation" and note 14 "New accounting standards" in the Issuer's financial report as at and for the three and twelve months ended 31 December 2018.

Alternative Performance Measures

We present in this Base Prospectus certain alternative performance measures of historical financial performance, which, in accordance with the "Alternative Performance Measures" guidance issued by ESMA are not accounting measures defined or specified in IFRS (the "**Alternative Performance Measures**"). These Alternative Performance Measures comprise non-IFRS results, gross margin, operating margin and EBITDA.

The exact definitions for calculating these Alternative Performance Measures that are not based on IFRS and the reason why the Company believes that the use of each alternative performance measure is beneficial are presented under "Selected Financial Data".

Alternative Performance Measures are unaudited.

Rounding

Certain figures included in this Base Prospectus have been subject to rounding adjustments; accordingly, figures shown for the same category presented in different tables may vary slightly and figures shown as totals in certain tables may not be an arithmetic aggregation of the figures which precede them.

IMPORTANT NOTICES

The Issuer accepts responsibility for the information contained in this Base Prospectus and any Final Terms (as defined below) and declares that, having taken all reasonable care to ensure that such is the case, the information contained in this Base Prospectus and any Final Terms are, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import.

Subject as provided in the relevant Final Terms, the only persons authorised to use this Base Prospectus in connection with an offer of Notes are the persons named in the relevant Final Terms as the relevant Dealer or the Managers, as the case may be.

This Base Prospectus is to be read in conjunction with all documents which are deemed to be incorporated herein by reference (see "*Information Incorporated by Reference*"). This Base Prospectus shall be read and construed on the basis that such documents are incorporated and form part of this Base Prospectus.

The language of the Base Prospectus is English. Certain legislative references and technical terms have been cited in their original language in order that the correct technical meaning may be ascribed to them under applicable law.

Each Tranche (as defined herein) of Notes will be issued on the terms set out herein under "*Terms and Conditions of the Notes*" (the "**Conditions**") below as completed by a document specific to such Tranche of Notes called the final terms (each a "**Final Terms**") or in a separate prospectus specific to such Tranche of Notes (each a "**Drawdown Prospectus**") (as described in "*Final Terms, Drawdown Prospectuses and Supplements*"). In the case of a Tranche of Notes which is the subject of a Drawdown Prospectus, each reference in this Base Prospectus to information being specified or identified in the relevant Final Terms shall be read and construed as a reference to such information being specified or identified in the relevant Drawdown Prospectus, unless the context requires otherwise. This Base Prospectus must be read and construed together with any amendments or supplements hereto and with any information incorporated by reference herein and, in relation to any Tranche of Notes which is the subject of Final Terms, must be read and construed together with the relevant Final Terms.

No person has been authorised to give any information or to make any representation not contained in or not consistent with this Base Prospectus or any other document entered into in relation to the Programme or any information supplied by Nokia or such other information as is in the public domain and, if given or made, such information or representation should not be relied upon as having been authorised by Nokia or any Dealer.

Neither the Dealers nor any of their respective affiliates have authorised the whole or any part of this Base Prospectus and none of them makes any representation or warranty or accepts any responsibility as to the accuracy or completeness of the information contained in this Base Prospectus. Neither the delivery of this Base Prospectus or any Final Terms nor the offering, sale or delivery of any Note shall, in any circumstances, create any implication that the information contained in this Base Prospectus is true subsequent to the date hereof or the date upon which this Base Prospectus has been most recently amended or supplemented or that there has been no adverse change, or any event reasonably likely to involve any adverse change, in the prospects or financial or trading position of Nokia since the date thereof or, if later, the date upon which this Base Prospectus has been most recently amended or supplemented or that any other information supplied in connection with the Programme is correct at any time subsequent to the date on which it is supplied or, if different, the date indicated in the document containing the same.

The distribution of this Base Prospectus and any Final Terms and the offering, sale and delivery of the Notes in certain jurisdictions may be restricted by law. Persons into whose possession this Base Prospectus or any Final Terms comes are required by the Issuer and the Dealers to inform themselves about and to observe any such restrictions. In particular, no action has been taken by the Issuer or the Dealers which is intended to permit a public offering of any Notes or distribution of this Base Prospectus in any jurisdiction where action for that purpose is required. Accordingly, no Notes may be offered or sold, directly or indirectly, and neither this Base Prospectus nor any advertisement or other offering material may be distributed or published in any jurisdiction, except under circumstances that will result in compliance with any applicable laws and regulations. For a description of certain restrictions on offers, sales and deliveries of Notes and on the distribution of this Base Prospectus or any Final Terms and other offering material relating to the Notes, see "*Subscription and Sale*". In particular, Notes have not been and will not be registered under the United States Securities Act of 1933 (as amended) (the "**Securities Act**") and Bearer Notes are subject to U.S. tax law requirements. Subject to certain exceptions, Notes may not be offered, sold or delivered within the United States or to U.S. persons.

Neither this Base Prospectus nor any Final Terms constitutes an offer or an invitation, or inducement to subscribe for or purchase any Notes and should not be considered as a recommendation by the Issuer, the Dealers or any of them that any recipient of this Base Prospectus or any Final Terms should subscribe for or purchase any Notes. Each recipient of this Base Prospectus or any Final Terms shall be taken to have made its own investigation and appraisal of the condition (financial or otherwise) of the Issuer.

This document is for distribution only to persons who (i) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "**Financial Promotion Order**"), (ii) are persons falling within Article 49(2)(a) to (d) ("**high net worth companies, unincorporated associations etc.**") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000) in connection with the issue or sale of any securities may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "**relevant persons**"). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.

The maximum aggregate principal amount of Notes outstanding at any one time under the Programme will not exceed EUR 5,000,000,000 (and for this purpose, any Notes denominated in another currency shall be translated into euro at the date of the agreement to issue such Notes (calculated in accordance with the provisions of the Dealer Agreement). The maximum aggregate principal amount of Notes which may be outstanding at any one time under the Programme may be increased from time to time, subject to compliance with the relevant provisions of the Dealer Agreement (as defined under "*Subscription and Sale*" below).

Any person making or intending to make a public offer of Notes, or seek the admission of any Notes to trading, in any Member State of the European Economic Area may only do so if this Base Prospectus has been approved by the competent authority in that Member State (or, where appropriate, approved in another Member State and notified to the competent authority in that Member State) and published in accordance with the Prospectus Directive. Save as provided above, none of the Issuer or any Dealer has authorised, nor do they authorise, the making of any public offer of Notes, or any application for admission of any Notes to trading, in circumstances in which an obligation arises for the Issuer or any Dealer to publish or supplement a prospectus for such offer.

In connection with any offering of the Notes, the Dealers are not acting for anyone other than the Issuer and will not be responsible to anyone other than the Issuer for providing the protections afforded to their clients nor for providing advice in relation to any offering of the Notes.

IMPORTANT – EEA RETAIL INVESTORS — If the Final Terms in respect of any Notes includes a legend entitled "**Prohibition of Sales to EEA Retail Investors**", the Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("**EEA**"). For the purposes of this provision, the expression "retail investor" means a person who is one (or more) of the following: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); (ii) a customer within the meaning of Directive 2002/92/EC (as amended or superseded, the "**Insurance Mediation Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in the Prospectus Directive. Consequently, no key information document required by Regulation (EU) No. 1286/2014 (as amended, the "**PRIIPs Regulation**") for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

MiFID II product governance / target market – The Final Terms in respect of any Notes may include a legend entitled "MiFID II product governance" which will outline the target market assessment in respect of the Notes and which channels for distribution of the Notes are appropriate. Any person subsequently offering, selling or recommending the Notes (a "**distributor**") should take into consideration the target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the target market assessment) and determining appropriate distribution channels.

A determination will be made in relation to each issue about whether, for the purpose of the Product Governance rules under EU Delegated Directive 2017/593 (the "**MiFID Product Governance Rules**"), any Dealer

subscribing for any Notes is a manufacturer in respect of such Notes, but otherwise neither the Arranger nor the Dealers nor any of their respective affiliates will be a manufacturer for the purpose of the MIFID Product Governance Rules.

In connection with the issue of any Tranche of the Notes, the Dealer or Dealers (if any) named as the Stabilisation Manager(s) (or persons acting on behalf of any Stabilisation Manager(s)) may over allot Notes or effect transactions with a view to supporting the market price of the Notes at a level higher than that which might otherwise prevail. However, stabilisation may not necessarily occur. Any stabilisation action may begin on or after the date on which adequate public disclosure of the terms of the offer of the relevant Tranche of Notes is made and, if begun, may cease at any time, but it must end no later than the earlier of 30 days after the issue date of the relevant Tranche of Notes and 60 days after the date of the allotment of the relevant Tranche of Notes. Any stabilisation action or over-allotment must be conducted by the relevant Stabilisation Manager(s) (or person(s) acting on behalf of any Stabilisation Manager(s)) in accordance with all applicable laws.

The Notes may not be a suitable investment for all investors

Each potential investor in the Notes must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

- (i) have sufficient knowledge and experience to make a meaningful evaluation of the Notes, the merits and risks of investing in the Notes and the information contained or incorporated by reference in this Base Prospectus or any applicable supplement;
- (ii) have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the Notes and the impact the Notes will have on its overall investment portfolio;
- (iii) have sufficient financial resources and liquidity to bear all of the risks of an investment in the Notes, including Notes with principal or interest payable in one or more currencies, or where the currency for principal or interest payments is different from the potential investor's currency;
- (iv) understand thoroughly the terms of the Notes and be familiar with the behaviour of any relevant indices and financial markets; and
- (v) be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

Some Notes are complex financial instruments. Sophisticated institutional investors generally do not purchase complex financial instruments as stand-alone investments. They purchase complex financial instruments as a way to reduce risk or enhance yield with an understood, measured, appropriate addition of risk to their overall portfolios. A potential investor should not invest in Notes which are complex financial instruments unless it has the expertise (either alone or with a financial adviser) to evaluate how the Notes will perform under changing conditions, the resulting effects on the value of the Notes and the impact this investment will have on the potential investor's overall investment portfolio.

Legal investment considerations may restrict certain investments

The investment activities of certain investors are subject to legal investment laws and regulations, or review or regulation by certain authorities. Each potential investor should consult its legal advisers to determine whether and to what extent: (i) Notes are legal investments for it; (ii) Notes can be used as collateral for various types of borrowing; and (iii) other restrictions apply to its purchase or pledge of any Notes. Financial institutions should consult their legal advisers or the appropriate regulators to determine the appropriate treatment of Notes under any applicable risk-based capital or similar rules.

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. These forward-looking statements reflect Nokia's current expectations and views of future developments and include statements regarding:

- expectations, plans or benefits related to our strategies and growth management;
- expectations, plans or benefits related to future performance of our businesses and any expected future dividends;
- expectations and targets regarding financial performance, results, operating expenses, taxes, currency exchange rates, hedging, cost savings and competitiveness, as well as results of operations including targeted synergies and those related to market share, prices, net sales, income and margins;
- expectations, plans or benefits related to changes in organisational and operational structure;
- expectations regarding market developments, general economic conditions and structural changes;
- our ability to integrate acquired businesses into our operations and achieve the targeted business plans and benefits, including targeted benefits, synergies, cost savings and efficiencies;
- expectations, plans or benefits related to any future collaboration or to business collaboration agreements or patent license agreements or arbitration awards, including income to be received under any collaboration or partnership, agreement or award;
- timing of the deliveries of our products and services, including our short-term and long-term expectations around the deployment of 5G and our ability to capitalise on such deployment, and the overall readiness of the 5G ecosystem;
- expectations and targets regarding collaboration and partnering arrangements, joint ventures or the creation of joint ventures, and the related administrative, legal, regulatory and other conditions, as well as our expected customer reach;
- outcome of pending and threatened litigation, arbitration, disputes, regulatory proceedings or investigations by authorities;
- expectations regarding restructurings, investments, capital structure optimisation efforts, 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, capital structure optimisation efforts, divestments and acquisitions, including our 2019—2020 cost savings program;
- expectations, plans or benefits related to future capital expenditures, temporary incremental expenditures or other R&D expenditures to develop or rollout new products, including 5G; and
- statements preceded by or including "believe", "expect", "expectations", "commit", "anticipate", "foresee", "see", "target", "estimate", "designed", "aim", "plan", "intend", "influence", "assumption", "focus", "continue", "project", "should", "is to", "will" or similar expressions.

These forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond our control, which could cause actual results to differ materially from such statements. These statements are based on management's best assumptions and beliefs in light of the information currently available to it. These forward-looking statements are only predictions based upon our current expectations and views of future events and developments and are subject to risks and uncertainties that are difficult to predict because they relate to events and depend on circumstances that will occur in the future.

Factors, including risks and uncertainties that could cause these differences include, but are not limited to:

- 1) our strategy is subject to various risks and uncertainties and we may be unable to successfully implement our strategic plans, sustain or improve the operational and financial performance of

- our business groups, correctly identify or successfully pursue business opportunities or otherwise grow our business;
- 2) general economic and market conditions and other developments in the economies where we operate, including the timeline for the deployment of 5G and our ability to successfully capitalise on that deployment;
 - 3) competition and our 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;
 - 4) our dependence on the development of the industries in which we operate, including the cyclical nature and variability of the information technology and telecommunications industries and our own R&D capabilities and investments;
 - 5) our dependence on a limited number of customers and large multi-year agreements;
 - 6) our ability to maintain our existing sources of intellectual property-related revenue through our intellectual property, including through licensing, establish new sources of revenue and protect our intellectual property from infringement;
 - 7) our ability to manage and improve our financial and operating performance, cost savings, competitiveness and synergies generally and our ability to implement changes to our organisational and operational structure efficiently;
 - 8) our global business and exposure to regulatory, political or other developments in various countries or regions, including emerging markets and the associated risks in relation to tax matters and exchange controls, among others;
 - 9) our ability to achieve the anticipated benefits, synergies, cost savings and efficiencies of acquisitions, including the acquisition of Alcatel Lucent;
 - 10) exchange rate fluctuations, as well as hedging activities;
 - 11) our ability to successfully realise the expectations, plans or benefits related to any future collaboration or business collaboration agreements and patent license agreements or arbitration awards, including income to be received under any collaboration, partnership, agreement or arbitration award;
 - 12) Nokia Technologies' ability to protect its intellectual property rights ("**IPR**") and to maintain and establish new sources of patent, brand and technology licensing income and IPR-related revenues, particularly in the smartphone market, which may not materialise as planned;
 - 13) our dependence on IPR technologies, including those that we have developed and those that are licensed to us, and the risk of associated IPR-related legal claims, licensing costs and restrictions on use;
 - 14) our exposure to direct and indirect regulation, including economic or trade policies, and the reliability of our governance, internal controls and compliance processes to prevent regulatory penalties or other punitive actions in our business;
 - 15) our reliance on third-party solutions for data storage and service distribution, which expose us to risks relating to security, regulation and cybersecurity breaches;
 - 16) inefficiencies, breaches, malfunctions or disruptions of information technology systems;
 - 17) our exposure to various legal frameworks regulating corruption, fraud, trade policies, and other risk areas, and the possibility of proceedings or investigations that result in fines, penalties or sanctions;
 - 18) adverse developments with respect to customer financing or extended payment terms we provide to customers;

- 19) the potential complex tax issues, tax disputes and tax obligations we may face in various jurisdictions, including the risk of obligations to pay additional taxes;
- 20) our actual or anticipated performance, among other factors, which could reduce our ability to utilise deferred tax assets;
- 21) our ability to retain, motivate, develop and recruit appropriately skilled employees;
- 22) disruptions to our manufacturing, service creation, delivery, logistics and supply chain processes, and the risks related to our geographically-concentrated production sites;
- 23) the impact of litigation, arbitration, agreement-related disputes or product liability allegations associated with our business;
- 24) our ability to re-establish investment grade rating or maintain our credit ratings;
- 25) our ability to achieve targeted benefits from, or successfully implement planned transactions, as well as the liabilities related thereto;
- 26) our involvement in joint ventures and jointly-managed companies;
- 27) the carrying amount of our goodwill may not be recoverable;
- 28) uncertainty related to the amount of dividends and equity return we are able to distribute to shareholders for each financial period;
- 29) pension costs, employee fund-related costs, and healthcare costs;
- 30) our ability to successfully complete and capitalise on our order backlogs and continue converting our sales pipeline into net sales; and
- 31) risks related to undersea infrastructure,

as well as or as described in more detail in the risk factors specified in the "*Risk Factors*" section of this Base Prospectus.

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. We do 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, as well as or as described in more detail in the risk factors specified in the "*Risk Factors*" section of this Base Prospectus.

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OVERVIEW

This overview must be read as an introduction to this Base Prospectus and any decision to invest in the Notes should be based on a consideration of the Base Prospectus as a whole, including any information incorporated by reference.

The overview does not purport to be complete and is taken from, and is qualified in its entirety by, the remainder of this Base Prospectus and, in relation to the terms and conditions of any particular Tranche of Notes, the relevant Final Terms.

This overview constitutes a general description of the Programme for the purposes of Article 22.5(3) of Commission Regulation (EC) No 809/2004 implementing the Prospectus Directive.

Words and expressions defined in the "*Terms and Conditions of the Notes*" below or elsewhere in this Base Prospectus have the same meanings in this overview.

- Issuer: Nokia Corporation.
- Risk Factors: Investing in Notes issued under the Programme involves certain risks. The principal risk factors that may affect the ability of the Issuer to fulfil its obligations under the Notes are discussed under "*Risk Factors*" below.
- Arranger: Deutsche Bank AG, London Branch.
- Dealers: Citigroup Global Markets Europe AG, Citigroup Global Markets Limited, Deutsche Bank AG, London Branch, Goldman Sachs International, J.P. Morgan Securities plc and any other Dealer appointed from time to time by the Issuer either generally in respect of the Programme or in relation to a particular Tranche of Notes.
- Fiscal Agent: Citibank, N.A., London Branch.
- Irish Listing Agent: J&E Davy.
- Final Terms or Drawdown Prospectus: Notes issued under the Programme may be issued either: (i) pursuant to this Base Prospectus and associated Final Terms; or (ii) pursuant to a Drawdown Prospectus. The terms and conditions applicable to any particular Tranche of Notes will be the Conditions as completed by the relevant Final Terms or, as the case may be, the relevant Drawdown Prospectus.
- Listing and Trading: Application has been made for Notes issued under the Programme during the period of 12 months after the date hereof to be admitted to the Official List of Euronext Dublin and to trading on its regulated market. The Programme also permits Notes to be issued on the basis that they will be admitted to listing, trading and/or quotation by such other or further competent authorities, stock exchanges and/or quotation systems as may be agreed with the Issuer.
- Clearing Systems: Euroclear and/or Clearstream, Luxembourg and/or, in relation to any Tranche of Notes, any other clearing system as may be specified in the relevant Final Terms.
- Initial Programme Amount: Up to EUR 5,000,000,000 (or its equivalent in other currencies) aggregate principal amount of Notes outstanding at any one time.
- Issuance in Series: Notes will be issued in Series. Each Series may comprise one or more Tranches issued on different issue dates. The Notes of each Series will all be subject to identical terms, except that the issue date and the amount of the first payment of interest may be different in respect of different Tranches. The Notes of each Tranche will all be subject to identical terms

in all respects save that a Tranche may comprise Notes of different denominations.

Forms of Notes: Notes may be issued in bearer or in registered form. Each Tranche of Notes will initially be in the form of either a Temporary Global Note or a Permanent Global Note, in each case as specified in the relevant Final Terms. Each Global Note which is not intended to be issued in new global note form (a "**Classic Global Note**" or "**CGN**"), as specified in the relevant Final Terms, will be deposited on or around the relevant issue date with a depositary or a common depositary for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system and each Global Note which is intended to be issued in new global note form (a "**New Global Note**" or "**NGN**"), as specified in the relevant Final Terms, will be deposited on or around the relevant issue date with a common safekeeper for Euroclear and/or Clearstream, Luxembourg. Each Temporary Global Note will be exchangeable for a Permanent Global Note or, if so specified in the relevant Final Terms, for Definitive Notes. If the TEFRA D Rules are specified in the relevant Final Terms as applicable, certification as to non-U.S. beneficial ownership will be a condition precedent to any exchange of an interest in a Temporary Global Note or receipt of any payment of interest in respect of a Temporary Global Note. Each Permanent Global Note will be exchangeable for Definitive Notes in accordance with its terms. Definitive Notes will, if interest-bearing, have Coupons attached and, if appropriate, a Talon for further Coupons.

Each Tranche of Registered Notes will be in the form of either Individual Note Certificates or a Global Registered Note, in each case as specified in the relevant Final Terms. Each Global Registered Note, which is not intended to be held under the new safekeeping structure (the "**New Safekeeping Structure**" or "**NSS**"), as specified in the relevant Final Terms, will be deposited on or around the relevant issue date with a depositary or a common depositary for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system and registered in the name of a nominee for such depositary and will be exchangeable for Individual Note Certificates in accordance with its terms. Each Global Registered Note intended to be held under the New Safekeeping Structure, as specified in the relevant Final Terms, will, on or about the relevant issue date, be registered in the name of a common safekeeper (or its nominee) for Euroclear and/or Clearstream, Luxembourg and the relevant Global Registered Note will be exchangeable for Individual Note Certificates in accordance with its terms.

Currencies: Notes may be denominated in Euro, Sterling, U.S. dollars, Japanese Yen, Swiss Francs or in any other currency or currencies, subject to compliance with all applicable legal and/ or regulatory and/or central bank requirements.

Status of the Notes: Notes will be issued on an unsubordinated basis.

Issue Price: Notes may be issued fully-paid at any price. The price and amount of Notes to be issued under the Programme will be determined by the Issuer and the relevant Dealer at the time of issue in accordance with prevailing market conditions.

Maturities: Any maturity specified in the relevant Final Terms, subject, in relation to specific currencies, to compliance with all applicable legal and/or regulatory and/or central bank requirements.

Where Notes have a maturity of less than one year and either (a) the issue proceeds are received by the Issuer in the United Kingdom or (b) the

activity of issuing the Notes is carried on from an establishment maintained by the Issuer in the United Kingdom, such Notes must: (i) have a minimum redemption value of £100,000 (or its equivalent in other currencies) and be issued only to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses; or (ii) be issued in other circumstances which do not constitute a contravention of section 19 of the Financial Services and Markets Act 2000 ("**FSMA**") by the Issuer.

- Redemption: Notes may be redeemable at the Redemption Amount specified in the relevant Final Terms.
- Optional Redemption: Notes may be redeemed before their stated maturity at the option of the Issuer as described in Condition 9(c) (*Redemption and Purchase — Redemption at the option of the Issuer (Call Option)*), Condition 9(d) (*Redemption and Purchase — Redemption at the option of the Issuer (Make-Whole)*) and/or the Noteholders as described in Condition 9(f) (*Redemption and Purchase — Redemption at the option of Noteholders*) to the extent (if at all) specified in the relevant Final Terms.
- Tax Redemption: Except as described in "*Optional Redemption*" above, early redemption will only be permitted for tax reasons as described in Condition 9(b) (*Redemption and Purchase — Redemption for tax reasons*).
- Interest: Notes may be interest-bearing or non-interest bearing. Interest (if any) may accrue at a fixed rate or a floating rate and the method of calculating interest may vary between the issue date and the maturity date of the relevant Series.
- Denominations: The Notes will be issued in such denominations as may be agreed between the Issuer and the relevant Dealer save that (i) the minimum denomination of each Note will be such amount as may be allowed or required from time to time by the relevant central bank (or equivalent body) or any laws or regulations applicable to the relevant Specified Currency, and (ii) the minimum denomination of each Note will be EUR 100,000 (or, if the Notes are denominated in a currency other than euro, the equivalent amount in such currency). See also "*Maturities*" above, in relation to Sterling Notes having a maturity of less than one year.
- Negative Pledge: The Notes will have the benefit of a negative pledge as described in Condition 5 (*Negative Pledge*).
- Cross Acceleration: The Notes will have the benefit of a cross acceleration provision as described in Condition 13 (*Events of Default*).
- Taxation: All payments in respect of Notes will be made free and clear of withholding taxes of the Republic of Finland, as the case may be, unless the withholding is required by law. In that event, the Issuer will (subject as provided in Condition 12 (*Taxation*)) pay such additional amounts as will result in the Noteholders receiving such amounts as they would have received in respect of such Notes had no such withholding been required.
- Governing Law: The Notes and any non-contractual obligations arising out of or in connection with the Notes will be governed by, and shall be construed in accordance with, English law.
- Enforcement of Notes in Global Form: In the case of Global Notes, individual investors' rights against the Issuer will be governed by a Deed of Covenant dated 1 March 2019, a copy of

which will be available for inspection at the specified office of the Fiscal Agent.

Ratings: The rating of certain series of Notes to be issued under the Programme may be specified in the relevant Final Terms.

In general, European regulated investors are restricted under the CRA Regulation from using a credit rating for regulatory purposes if such rating is not issued by a credit rating agency established in the European Union and registered under the CRA Regulation unless (1) the rating is provided by a credit rating agency not established in the European Union or registered under the CRA Regulation but such credit rating is endorsed by a credit rating agency established in the European Union and registered under the CRA Regulation or (2) the credit rating is provided by a credit rating agency not established in the European Union or registered under the CRA Regulation but certification has been provided, in accordance with the CRA Regulation, that such credit rating agency is regulated in a manner equivalent to credit rating agencies registered in the European Union.

If rated Notes are issued, they are expected to be rated by S&P and Moody's. Each of S&P and Moody's are established in the European Union and have been registered under the CRA Regulation.

Selling Restrictions: For a description of certain restrictions on offers, sales and deliveries of Notes and on the distribution of offering material in the United States of America, the United Kingdom, the European Economic Area and Japan, see "*Subscription and Sale*" below.

RISK FACTORS

Set forth below is a description of risk factors that could affect Nokia. The risk factors described below should not be construed as exhaustive. There may be additional risks that are unknown to us 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, liquidity, market share, brand, reputation and share price from time to time, which may affect our ability to fulfil our obligations under Notes issued under the Programme. 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, including Alcatel Lucent. Certain risks or events as indicated may be more prevalent with respect to Nokia or a certain business group, business or part of the Group.

The material risks for the purpose of assessing the market risks associated with Notes issued under the Programme are also described below.

Prospective investors should read the entire Base Prospectus and reach their own views prior to making any investment decision. Words and expressions defined in the "Terms and Conditions of the Notes" below or elsewhere in this Base Prospectus have the same meanings in this section.

Factors which are material for the purpose of assessing the risks related to our business

Our strategy is subject to various risks and uncertainties and we may be unable to successfully implement our strategic plans, sustain or improve the operational and financial performance of our business groups, correctly identify or successfully pursue business opportunities or otherwise grow our business.

In October 2018, we announced plans to accelerate the execution of our strategy, sharpen our customer focus, and maintain long-term cost leadership. At the same time we reaffirmed our commitment to our full-year 2020 non-IFRS operating margin and diluted earnings per share guidance for Nokia Group.

We operate in rapidly changing and innovative industries and the opportunities we pursue may require significant investments in innovation in order to generate growth, profitability or other targeted benefits across our business. Our strategy, which includes targeted investments in our business and pursuing new business opportunities based on identified trends and opportunities, may not yield a return on our investment as planned or at all. Our ability to achieve strategic goals and targets is subject to a number of uncertainties and contingencies, certain of which are beyond our control, and there can be no assurance that we will correctly identify trends or opportunities to pursue or be able to achieve the goals or targets we have set. We continuously target various improvements in our operations and efficiencies through investing in R&D, entering into licensing arrangements, acquiring businesses and technologies, recruiting expert employees and partnering with third parties. There can be no assurance that our efforts will generate the expected results or improvements in our operations or that we will achieve our intended targets or financial objectives related to such efforts. Any failure to achieve our strategy may materially and adversely affect our business, financial condition and results of operations. Furthermore, there can be no assurance that our investments will result in technologies, products or services that achieve or retain broad or timely market acceptance, answer to the expanding needs or preferences of our customers or consumers, or break-through innovations that we could otherwise utilise for value creation.

As part of our strategy, we have and may continue to acquire or divest assets. For instance, in 2018 we acquired SpaceTime Insights and Unium for the purpose of advancing our strategies regarding Software, IoT and Fixed Networks business. We may fail to complete planned acquisitions or divestments or to integrate acquired businesses or assets. Any such result could interfere with our ability to achieve our strategy, obtain intended benefits, retain and motivate acquired key employees, or timely discover all liabilities of acquired businesses or assets, which may have a material adverse effect on our business.

We may be materially and adversely affected by general economic and financial market conditions and other developments in the economies where we operate.

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 and financial market conditions both globally and regionally. We have manufacturing facilities and suppliers located in various countries around the world which may equally be impacted by these conditions. Adverse developments in, or the general weakness of, economic conditions,

such as unemployment or consumer spending, may have an adverse impact on the spending patterns of end-users. This, in turn, may affect demand of consumables, such as mobile devices which would have an adverse effect on our Technologies business. In our Networks business, this may also affect both the services that end-users subscribe to and the usage levels of such services, which may lead mobile operators and service providers to invest less in related infrastructure and services or to invest in low-margin products and services. Likewise, adverse developments in economic conditions may lead vertical customers, i.e. webscale companies, TXLE, transportation, energy, public safety, to invest less in infrastructure and services to digitise their operations or to invest in low-margin products and services. These all could have a material adverse effect on our business, financial condition, and results of operations.

General uncertainty and adverse developments in the financial markets and the general economy could have a material adverse effect on our or our suppliers' ability to obtain sufficient or affordable financing on satisfying terms. Uncertain market conditions may increase the price of financing or decrease its availability. We or our suppliers could also encounter difficulties in raising funds or accessing liquidity necessary to maintain financial condition and results of operations.

We face intense competition and are dependent on development of the industries and markets in which we operate. The information technology and communications industries and related services market are cyclical and are affected by many factors, including the general economic environment, technological changes, competitor behaviour, purchase and spending behaviour of service providers, consumers and businesses, deployments and roll-out timing.

Our sales and profitability are dependent on the development of the industries in which we operate, including the information technology and communications and related services market in numerous markets around the world. The competitive environment in the markets where we operate continues to be intense and is characterised by maturing industry technologies, equipment price erosion and aggressive price competition.

For instance, we are particularly dependent on the investments made by mobile operators and network service providers in network infrastructure and related services. The pace and size of such investments are in turn dependent on the ability of network service providers and mobile operators to increase their subscriber numbers, reduce churn and compete with business models eroding revenue from traditional voice, messaging and data transport services, as well as the financial condition of such network service providers and mobile operators.

Mobile operators' cost reductions and network sharing, and industry consolidation among operators have reduced the amount of available business, resulting in further competition and pressure on pricing and profitability. Consolidation of operators may result in vendors and service providers concentrating their business in certain service providers and increasing the possibility that agreements with us are terminated or not renewed. In addition, the investments of the mobile operators in the new spectrum assets may reduce their funds available for investing the new network infrastructure and related services. Furthermore, the level of demand by service providers and other customers that purchase our products and services can change quickly and can vary over short periods of time. In addition, portion of our revenues is driven by the timing of completion and customer acceptances, which particularly in relation to 5G are further dependent on maturity of the whole 5G ecosystem. As a result of the uncertainty and variations in the telecommunications and vertical industries, accurately forecasting revenues, results and cash flow remains difficult.

Market developments favouring new technological solutions, such as SDN, cloud, and virtualisation may result in reduced spending for the benefit of our competitors who have, or may have, a stronger position in such technologies. The technological viability of standardised, low-margin hardware products in combination with the virtualisation of functions can induce a change in purchase behaviour, resulting in favouring other vendors or in higher bargaining power versus Nokia due to more alternative vendors. Additionally, new competitors may enter the industry as a result of acquisitions or shifts in technology. For example, the virtualisation of core and radio networks and the convergence of IT and telecommunications may lower barriers of entry for IT companies in the traditional telecommunications industry or they may build up tight strategic partnerships with our traditional competitors. Additionally, some companies, including webscale companies, may drive a faster pace of innovation in telecommunication infrastructure through more collaborative approaches and open technologies across access, backhaul, core and management. If we are unable to respond successfully to competitive challenges in the markets in which we operate, our business, financial condition and results of operations may be materially and adversely affected.

We expect to generate a significant share of our growth from new customers, including webscale companies and vertical customers in energy, transport, public sector, manufacturing and TXLEs. Each of these sectors may face

adverse industry developments which may significantly impact the size of investments addressable by us and our ability to address these investments, in terms of both having the right products available and being able to attain new customers. Furthermore, there are various incumbent and new players competing with Nokia in these customer groups we strategically target. With these types of customers, the nature of competition and the required capabilities can be significantly different from the communications service provider market, including competition based on access network, core network, Cloud infrastructure, platforms, applications and devices, and related services.

We compete with companies that have large overall scale, which affords such companies more flexibility (e.g. on pricing). We also continue to face intense competition globally, including from companies based in China which endeavour to gain further market share and broaden their presence in new areas of the network infrastructure and related services business (e.g. by providing lower-cost products and services). Competition for new customers, as well as for new infrastructure deployment, is particularly intense and focused on the favourability of price and agreement terms.

Examples of other risks and uncertainties impacting our success in the industries we operate, include:

- our ability to correctly estimate technological developments, including the impending turn to 5G, or adapt successfully to such developments;
- the development of the relevant markets and/or industry standards in directions that leave us deficient in certain technologies and industry areas that impact our overall competitiveness;
- the choice of our customers to turn to alternative vendors to maintain end-to-end services from such vendors;
- our ability to successfully develop market recognition as a leading provider of software and services in the information technology and communications and related services market, as well as with our vertical customers in energy, transport, public sector, webscale, manufacturing and TXLEs;
- our ability to sustain or grow net sales in our business and areas of strategic focus, which could result in the loss of benefits related to economies of scale and reduced competitiveness;
- our ability to identify opportunities and enter into agreements that are commercially successful; and
- our ability to continue utilising current customer relations to advance our sales of related services, or pursue new service-led growth opportunities.

Our inability to overcome any of the above risks or uncertainties could have a material adverse effect on our results of operations or financial performance.

We may fail to effectively and profitably invest in new competitive high-quality products, services, upgrades and technologies or bring them to market in a timely manner or fail to adapt to changing business models.

Our business and the markets where we operate are characterised by rapidly evolving technologies, frequent new technological requirements, product feature introductions and evolving industry standards. The participants in the information technology, communications and related services market compete on the basis of product offerings, technical capabilities, quality, price and affordability through consumer financing arrangements. As a result, our business performance depends on the timely and successful introduction of new products, services and upgrades of current products to meet the evolving requirements of customers, comply with emerging industry standards and address competing technological and product developments carried out by competitors while keeping prices and costs at competitive levels.

The R&D of new and innovative, technologically advanced products, 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, in addition to accurate anticipation of technological, regulatory and market trends. We may focus our resources on products and technologies that do not become widely accepted or ultimately prove unviable. Additionally, many of our current and planned products are highly complex and may contain defects or errors

that are, for instance, detected only after deployment in telecommunications networks. Our results of operations will depend to a significant extent on our ability to succeed in the following areas:

- maintaining and developing a competitive product portfolio and service capability that are attractive to our customers, for instance by keeping pace with technological advances in our industry and pursuing the technologies that become commercially accepted;
- continuing to introduce new products and product upgrades successfully and on a cost-efficient and timely basis;
- developing new or enhancing existing tools for our services offerings;
- optimising the amount of customer or market specific technology, product and feature variants in our product portfolio;
- continuing to meet expectations and enhance the quality of our products and services as well as introducing products and services that have desired features and attributes, such as energy efficiency;
- pricing products and services appropriately, which is crucial in the networks infrastructure business due to the typical long-term nature and complexity of the agreements;
- maintaining and building up strategic partnerships in our value creation chain (e.g. in product creation and in project delivery); and
- leveraging our technological strengths.

Any failure by us to effectively and profitably invest in new competitive products, services, upgrades or technologies (such as 5G, IoT, the cloud or software) and bring them to market in a cost-efficient, timely manner could result in a loss of net sales and market share and have a material adverse effect on our results of operations, competitiveness, profitability and financial condition.

Certain of our competitors have significant resources to invest in market exploration and may seek new monetisation models or drive industry development and capture value in areas where we may not currently be competitive or do not have similar resources available to us. These areas may include monetisation models linked to large amounts of consumer data, large connected communities, home or other entertainment services, alternative payment mechanisms or marketing products. We also face competition from various companies that may be able to develop technologies or products that become preferred over those developed by us or result in adverse effects on us through, for instance, developing technological innovations that make our innovations less relevant.

We must introduce high-quality products and services in a cost-efficient, timely manner and manage proactively the costs related to our portfolio of products and services, including component sourcing, manufacturing, logistics and other operations. If we fail to maintain or improve our market position, competitiveness or scale, or if we fail to leverage our scale to the fullest extent and keep prices and costs at competitive levels or provide high-quality products and services, this could materially and adversely affect our competitive position, business and results of operations, particularly our profitability.

We are dependent on a limited number of customers and large multi-year agreements. The loss of a single customer or contract, operator consolidation, unfavourable contract terms or other issues related to a single agreement may have a material adverse effect on our business and financial condition.

A significant proportion of the net sales that we generate 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 our net sales will be attributable to a smaller number of large service providers operating in multiple markets. These developments are also likely to increase the impact on our net sales based on the outcome of certain individual agreement tenders.

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 us to service. Furthermore, procurement organisations of certain large mobile operators sell consulting services to enhance the negotiating position of small operators with their vendors. As a result of these trends and the intense competition

in the industry, we may be required to agree to increasingly less favourable terms in order to remain competitive. Any unfavourable 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. Also, due to the long-term nature of the agreements, it is possible that the contract terms of the agreement may prove less favourable to us than originally expected, for instance due to changes in costs and product portfolio decisions.

We may lose existing agreements, or we are unable to renew or gain new agreements due to customer diversity policies that limit the ability of customers to have one network provider exceeding a certain threshold of business in a given market. Policies or practices in certain countries may also limit the possibility for foreign vendors to participate in certain business areas over a certain threshold.

Furthermore, there is a risk that the timing of sales and results of operations associated with large multi-year agreements, which are typical in the mobile infrastructure and related services business, 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 an agreement's term, or may require us to continue to sell certain products and services, or to sell in certain markets, that would otherwise be discontinued or exited, thereby diverting resources from developing more profitable or strategically important products and services, or focusing on more profitable or strategically important markets. Furthermore, our customer agreements may involve complex transformation of the networks as the customers deploy new technologies and the related costs and scope of required deliverables may differ from our expectations at the time we enter into these agreements. Any suspension, termination or non-performance by us under an agreement's terms may have a material adverse effect on us (e.g. due to penalties for breaches or early termination).

Our patent licensing income and other intellectual property-related revenues are subject to risks and uncertainties such as our ability to maintain our existing sources of intellectual property-related revenue, establish new sources of revenue and protect our intellectual property from infringement. A proportionally significant share of the current patent licensing income is generated from the smartphone market which is rapidly changing and features a limited number of large vendors.

We have a long history of investing significantly in R&D to develop new relevant technologies, products and services for our business, and continue to do so. We have one of the industry's strongest intellectual property portfolios, including numerous standardised or proprietary patented technologies in our Nokia Technologies business group and in our other business groups. Many of our products and services use or are protected by patents in these portfolios. We also generate revenue by licensing, and we seek to renew existing license agreements and negotiate new license agreements. We also seek to expand the scope of our licensing activities to other industries, in particular those that implement mobile communication technologies. The continued strength of our portfolios depends on our ability to create new relevant technologies, products and services through our R&D activities and to protect our IPR. If those technologies, products and services do not become relevant, and therefore attractive to licensees, the strength of our intellectual property portfolios could be reduced, which could adversely affect our ability to use our intellectual property portfolios for revenue generation. Our intellectual property-related revenue can vary considerably from time to time based on factors such as the terms of agreements we enter into with licensees, and there is no assurance that past levels are indicative of future levels of intellectual property-related revenue.

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 Standard-Essential Patents or seek to pay less than reasonable license fees. If we are unable to continue to develop or protect our intellectual property-related revenue or establish new sources of revenue, this may materially and adversely affect our business, financial position and results of operations.

The Nokia Technologies business group's sales and profitability are currently largely derived 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 a licensee's ability to pay is reduced or they become insolvent or bankrupt. Additionally, poor performance of potential or current licensees may limit a licensee's motivation to seek new or renew existing licensing arrangements with us. In certain cases, 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 the Nokia Technologies business group.

We enforce our patents against unlawful infringement and generate revenue through realising the value of our intellectual property by entering into license agreements and occasionally through business transactions. Patent license agreements can cover both licensees' past and future sales. The portion of the income that relates to licensees' 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.

In certain cases, we have initiated litigation to enforce our patents. In other cases, we have used arbitration proceedings to establish the terms of compensation between the parties. Due to the nature of any litigation or arbitration proceedings, there can be no assurances as to the final outcome or timing of any outcome of litigation, arbitration or other resolution.

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. Any patents or other IPR may be challenged, invalidated or circumvented, and any right granted under our patents may not provide competitive advantages for us. Our ability to protect and monetise our intellectual property may depend on regulatory developments in various jurisdictions and the implementation of the regulations by administrative bodies. Our ability to protect, license or divest our patented innovations may vary by region. In the technology sector generally, certain licensees are actively avoiding license payments, while some licensors are using aggressive methods to collect license payments, with both behaviours attracting regulatory attention. Authorities in various countries have increasingly monitored patent monetisation and may aim to influence the terms on which patent licensing arrangements or patent divestments may be executed. Such terms may be limited to a certain country or region; however, authorities could potentially seek to widen the scope and even impose global terms, potentially resulting in an adverse effect on us or limiting our ability to monetise our patent portfolios.

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, including our patents. In the event that one or more of our patents is challenged, a court may invalidate the patent or determine that the patent is not enforceable, which could have an impact on our competitive position. The outcome of court proceedings is difficult to predict and, consequently, our ability to use intellectual property for revenue generation may from time to time depend on favourable court rulings. Additionally, if any of our patents is invalidated, or if the scope of the claims in any 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 experts from our business and have an adverse effect on our reputation. Any diminution in the protection of our IPR could cause us to lose certain benefits of our R&D investments.

We retained our entire patent portfolio after the sale of the D&S Business in 2014. Following the sale of the D&S Business, Nokia Technologies is no longer required to agree cross-licenses to cover its handset business, which has contributed to growing our licensing revenue. While this has been our practice, there can be no guarantee that this can be continued in future. In the past, parts of our intellectual property development were driven by innovation from the D&S Business. As we no longer own this business, our future intellectual property relating to the mobile phone sector may lessen and our ability to influence industry trends and technology selections may reduce.

We also enter into business agreements separately within our business groups which may grant certain licenses to our patents. Some of these agreements may inadvertently grant licenses to our patents with a broader scope than intended, or they may otherwise make the enforcement of our patents more difficult.

We conduct our business globally, being subject to direct and indirect regulation and exposing us to geopolitical risks, including unfavourable or unpredictable treatment in relation to trade tariffs, tax matters, exchange controls, and other restrictions. Changes in various types of regulations or their application, applicable to current or new technologies or products, may adversely affect our business and results of operations. Our governance, internal controls and compliance processes could fail to prevent regulatory penalties at corporate level, operating subsidiaries and in joint ventures.

We develop many of our products based on existing regulations and technical standards, our interpretation of unfinished technical standards or, in certain cases, in the absence of applicable regulations and standards. We generate sales from, collaborate and have R&D and manufacturing facilities and suppliers located in, various countries around the world. Regulatory and economic developments, sometimes unexpected and dramatic, impacting our ability to timely react to such developments, political turmoil, trade barriers, military actions, labour unrest, civil unrest, and public health and safety threats (such as disease outbreaks), could have a material adverse effect on our ability to supply products and services, including network infrastructure equipment manufactured in such countries, and on our sales and results of operations.

Changes in various types of regulations or their application, 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 constructions or the expansion and commercial launch and ultimate commercial success of such networks. Also, changes in applicable privacy-related regulatory frameworks, such as EU General Data Protection Regulation effective as at May 2018, the exit of UK from EU without an agreement on the treatment of personal data, the upcoming eEvidence and e-Privacy Regulations or their application 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. For instance, countries could require governmental interception capabilities or regulations aimed at allowing direct governmental access to data for the products and services we offer that could adversely affect us, if by way of our human rights policy we decide to reduce our sales to such markets or limiting our ability to use components or software that we have developed or sourced from other companies.

Our provision of services and adaptation of Cloud-based solutions has resulted in us being exposed to a variety of new regulatory issues or different exposure to regulatory issues (e.g. related to data protection or data localisation) and makes us subject to increased regulatory scrutiny. Our current business models rely on certain centralised data processing solutions and Cloud or remote delivery-based services for distribution of services and software or data storage. Cloud and remote delivery-based business models and operations have certain inherent risks, including those stemming from potential security and privacy breaches, and applicable regulatory regimes may cause limitations in implementing such business models or expose us to adverse effects stemming for instance from regulatory or contractual issues, including penalties, fines, sanctions and limitations on conducting business. An increase in the protectionist stances of governments around the world, which impact the free flow of data across borders, is already affecting our global service delivery model.

Reduced availability of export credits supporting our sales as well as reduced government funding for our R&D activities could affect our ability to enter new markets and to develop new technology or products. Furthermore, our business and results of operations may be adversely affected by regulation favouring the local industry participants, as well as other measures with potentially protectionist objectives that host governments in various countries may take, particularly in response to challenging global economic conditions or following changes in political regimes. The impact of changes in or uncertainties related to regulation and trade policies could affect our business and results of operations adversely or indirectly in certain cases where the specific regulations do not directly apply to us or our products and services. 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. Governments 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 end users or require us to incur substantial costs, change our business practices or prevent us from offering our products and services. For example, many countries have adopted new competition laws in recent years. These laws can be applied in ways that favour local suppliers or which are simply unpredictable, creating obstacles to our business activities. Changes in political regimes will also likely impact the way Nokia does business, due to potential changes in trade, privacy, cybersecurity, telecommunications, immigration and environmental policies. Restrictive government policies or actions, such as limitations on visas or work permits for certain foreign workers may make it difficult for us to move our employees into and out of these jurisdictions. Our operations and employee recruitment and retention depend on our ability to obtain the necessary visas and work permits for our employees to travel and work in the jurisdictions in which we operate.

The regulatory, exports and sanctions legal environment can also be difficult to navigate for companies with global operations, impacting our ability to grow business in specific markets or enter new markets. 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. 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.

We have a significant presence in emerging markets in which the political, economic, legal and regulatory systems are less predictable than in countries with more developed institutions. These markets represent a significant portion of our total sales, and a significant portion of expected future industry growth. Most of our suppliers are located in, and our products are manufactured and assembled in, emerging markets, particularly in Asia. Our business and investments in emerging markets may also be subject to risks and uncertainties, including unfavourable or unpredictable treatment in relation to tax matters, exchange controls, restrictions affecting our ability to make cross-border transfers of funds, regulatory proceedings, unsound or unethical business practices, challenges in protecting our IPR, nationalisation, inflation, currency fluctuations or the absence of or unexpected changes in regulation, as well as other unforeseeable operational risks. The purchasing power of our customers 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.

We continuously monitor international developments and assess the appropriateness of our presence and business in various markets. The US' unilateral withdrawal from the international agreement on Iran's nuclear activities has led to the reimposition of US sanctions while the EU and other signatories remain fully committed to the international agreement relaxing the sanctions against Iran. The diverging EU and US regulatory framework governing business activities in Iran will be far more complex in the future. As a European company it will be quite challenging to reconcile the opposing foreign policy regimes of the US and the EU. The changed US foreign and economic sanctions policy necessitates a reassessment of our operations in Iran which may require us to significantly reduce our business and maintain pre-existing contractual commitments in full alignment with applicable economic sanctions.

Also, in recent years, we have witnessed political unrest in various markets in which we conduct business or in which we have operations, which in turn has adversely affected our sales, profitability or operations in these markets, and in certain cases affected us outside these countries or regions. Any reoccurrence or escalation of such unrest could have a further material adverse effect on our sales or results of operations. For instance, instability and conflict in regions such as the Middle East, parts of Africa and Ukraine have in the past adversely affected, and may in the future adversely affect, our business or operations in these or related markets (e.g. through increased economic uncertainty or a slowdown or downturn attributable to current or increased economic and trade sanctions). Should we decide to exit or otherwise alter our presence in a particular market, this may have an adverse effect on us through, for example, triggering investigations, tax audits by authorities, claims by contracting parties or reputational damage. The results and costs of investigations or claims against our international operations may be difficult to predict and could lead to lengthy disputes, fines or fees, indemnities or costly

Our business and activities cover multiple jurisdictions and are subject to complex regulatory frameworks. We are observing that the adoption of surveillance, data localisation, national sourcing and national hiring requirements, regulations and policies are increasing. An increase in regulation of digital telecommunications and the failure by governments to achieve a uniform and reasonable common position on 5G spectrum licensing in various parts of the world, including, especially in the European Union, might impose additional costs or burdens on our customers and on Nokia itself. Current international trends show increased enforcement activity and enforcement initiatives in areas such as competition law, export control and sanctions, privacy, cybersecurity and anti-corruption. Despite our Group-wide annual ethical business training and other measures, we may not be able to prevent breaches of law or governance standards within our business, subsidiaries and joint ventures.

Nokia is a publicly listed company and, as such, subject to various securities and accounting rules and regulations. Nokia must monitor and assess its internal control over financial reporting and its compliance with the applicable rules and regulations. Corporate function's, our operating subsidiaries' or our joint ventures' failure to maintain effective internal controls over financial reporting or to comply with the applicable securities and accounting rules and regulations, could adversely affect the accuracy and timeliness of our financial reporting, 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 measures, which could have a material adverse effect on us.

Our efforts aimed at managing and improving our competitiveness, financial or operational performance may not lead to targeted results, benefits, cost savings 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 prioritisation of operating expenses and other costs, to identify and implement the appropriate measures to adjust our operating expenses and other costs on a timely basis, or to maintain achieved cost reduction levels, could have a material adverse effect on our business, results of operations and financial condition.

We operate in highly competitive industries and we are continuously targeting increased efficiency of our operations through various initiatives. For instance, we have announced targeted operating cost and production overhead savings by the end of 2020 and plan these savings come from a wide range of areas, including investments in digitalisation to drive more automation and productivity, further process and tool simplification, significant reduction in central support functions to reach best-in-class cost levels, prioritisation of R&D programs to best create long-term value, a sharp reduction of R&D in legacy products, driving efficiency from further application of our best-in-class common software foundation and innovative software development techniques, the consolidation of selected cross-company activities, and further reductions in real estate and other overhead costs. These planned savings are expected to result in a net reduction of employees globally. Also, we may, in the ordinary course of business, institute new plans for restructuring measures. Restructuring measures may be costly, potentially disruptive to operations, and may not lead to sustainable improvements in our overall competitiveness and profitability and, thus, may have a material adverse effect on our business or results of operations, for instance, as a result of the loss of benefits related to economies of scale.

In addition to our efforts in operating cost savings, various efficiency programs aimed at improving cost savings and financial performance have been implemented, and there can be no assurance that such plans will be met as planned in contemplated timeframes or at all, or result in sustainable improvements. Factors that may prevent a successful implementation or cause adverse effects on us include the following:

- expectations with respect to market growth, customer demand and other trends in the industry in which we operate;
- our ability to benefit from industry trends may prove to be inaccurate and changes in the general economic conditions, whether globally, nationally or in the markets in which we operate, may impact our ability to implement such plans;
- a down-turn in global or regional economic conditions may have an adverse effect on our ability to achieve the cost savings contemplated;
- legislative constraints or unfavourable changes in legislation in the markets in which we operate may influence timing, costs and expected savings of certain initiatives contemplated;
- our ability to successfully develop new or improve existing products, market products to new or existing customers, enter new markets and otherwise grow our business in a highly competitive market;
- our ability to swap equipment of certain customers in line with our future product lines development. We might not be successful in securing continued business from such customers, leading to sunk cost impacting our business and results of operations;
- organisational changes related to the implementation plans require the alignment and adjustment of resources, systems and tools, including digitalisation and automation, which if not completed in a structured manner could impact our ability to achieve our goals, projected cost savings and ability to achieve the efficiencies contemplated;
- the costs to effect the initiatives contemplated by our plans may exceed our estimates and we may not be able to realise the targeted cash inflows or yield other expected proceeds;
- our cost saving initiatives, including R&D, may negatively affect our ability to develop new or improve existing products and compete effectively in certain markets, and there is no guarantee that we will continue to be able to successfully innovate or remain technologically competitive;
- disruptions to regular business operations caused by the plans, including to unaffected parts of Nokia;

- intended business plans may require us to inform or consult with employees and labour representatives, and such processes may influence the timing, costs and extent of expected savings and the feasibility of certain of the initiatives contemplated;
- skilled employees may leave or we may not be able to recruit employees as a result of planned initiatives, and loss of their expertise may cause adverse effects on our business or limit our ability to achieve our goals and lead to an overall deterioration of brand value among potential and current employees or as a preferred employer; and
- bargaining power of our suppliers may prevent us from achieving targeted procurement savings.

While we are implementing and have implemented various cost savings and other initiatives in the past, and may implement such initiatives in the future, there can be no assurance that we will be able to complete those successfully or that we will realise the projected benefits. Our plans may be altered in the future, including adjusting any projected financial or other targets. The anticipated costs or the level of disruption expected from implementing such plans or restructurings may be higher than expected.

If we are unable to realise the projected benefits or contemplated cost savings by efforts aimed at managing and improving competitiveness and financial and operational performance, we may experience negative impacts on our reputation or a material adverse effect on our business, financial condition, results of operations and cash flows. Efforts to plan and implement cost saving initiatives may divert management attention from the rest of the business and adversely affect our business.

Due to our global operations, our net sales, costs and results of operations, as well as the U.S. dollar value of our dividends and market price of our ADSs, are affected by exchange rate fluctuations.

We operate globally and are therefore exposed to foreign exchange risks in the form of both transaction risks and translation risks. Our policy is to monitor and hedge exchange rate exposure, and we manage our operations to mitigate, but not to eliminate, the impacts of exchange rate fluctuations. There can be no assurance, however, that our hedging activities will prove successful in mitigating the potentially negative impact of exchange rate fluctuations. Additionally, significant volatility in the relevant exchange rates may increase our hedging costs, as well as limit our ability to hedge our exchange rate exposure. In particular, we may not adequately hedge against unfavourable exchange rate movements, including those of certain emerging market currencies, which could have an adverse effect on our financial condition and results of operations. Furthermore, exchange 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 customers, suppliers and competitors.

We also experience other financial market-related risks, including changes in interest rates and in prices of marketable securities that we own. We may use derivative financial instruments to reduce certain of these risks. If our strategies to reduce such risks are not successful, our financial condition and results of operation may be harmed.

Additionally, exchange rate fluctuations may materially affect the U.S. dollar value of any dividends or other distributions that are paid in euro, as well as the market price of our ADSs.

Our products, services and business models depend 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 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, utilisation of numerous patented standardised or proprietary technologies. We invest significantly in R&D through our business 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, on which our products and services and future cash generation and income depend. We believe our innovations that are protected by IPR are a strong competitive advantage for our business. The continued strength of our IPR 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. The holders of patents and other IPR potentially relevant to these complex technologies 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. Additionally, although we endeavour to ensure that we and the companies collaborating with us possess appropriate IPR or licenses, we cannot fully avoid the risks of IPR infringement by suppliers of components, processes and other various layers in our products, or by companies with which we collaborate. Similarly, we and our customers may face claims of infringement in connection with the use of our products.

In line with standard practice in our industry, we generally indemnify our customers for certain intellectual property-related infringement claims initiated by third parties, particularly non-practicing entities having no product or service business, and related to products or services purchased from us. If such claims are made directly against our customers, we may have limited possibilities to participate in the processes including negotiations and defences, or evaluate the outcomes and resolutions in advance. All IPR indemnifications can result in significant payment obligations for us that are difficult to estimate in advance.

The business models for many areas in our industry may not be clearly established. The lack of availability of licenses for copyrighted content, delayed negotiations or restrictive IPR license terms may have a material adverse effect on the cost or timing of content-related services and products offered by us, mobile network operators or third-party service providers.

Since all technology standards that we use and rely on, including mobile communication technologies such as Universal Mobile Telecommunications Service ("UMTS"), Long-term Evolution ("LTE") and upcoming 5G, or fixed line communication technologies, include certain IPR, we cannot avoid risks of facing claims for infringement of such rights due to our reliance on such standards. We believe the number of third parties declaring their patents to be potentially relevant to these 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 technologies 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 of such IPR declared or actually found to be essential to a particular standard carries an obligation to be licensed on fair, reasonable and non-discriminatory terms, not all intellectual property owners agree to apply such terms. As a result, we have experienced costly and time-consuming litigation proceedings against us and our customers or suppliers over such issues and we may continue to experience such litigations in the future.

From time to time, certain existing patent licenses may expire or otherwise become subject to renegotiation. The inability to renew or finalise 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 experts from our business and, if decided against us, could result in restrictions on our ability to sell our products, require us to pay increased licensing fees, unfavourable judgments, costly settlements, fines or other penalties and expenses.

Our patent license agreements may not cover all the future businesses that we may enter, our existing business 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 into new business areas 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 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.

We are exposed to risks related to information security. Our business model relies on solutions for distribution of services and software or data storage, which entail inherent risks relating to applicable regulatory regimes, cybersecurity breaches and other unauthorised access to network data or other potential security risks that may adversely affect our business.

Our business and operations rely on confidentiality of proprietary information as well as sensitive information, for instance related to our employees, consumers and our customers. Our business models rely on certain centralised data processing solutions and Cloud or remote delivery-based services for distribution of services and software or data storage, accessible by our partners or subcontractors according to the roles and responsibilities defined.

Although we endeavour to develop products and services that meet 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, unauthorised 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. IT is rapidly evolving, the techniques used to obtain unauthorised access or sabotage systems change frequently and the parties behind cyber-attacks and other industrial espionage are believed to be sophisticated and have extensive resources, and it is not commercially or technically feasible to mitigate all known vulnerabilities in a timely manner or to eliminate all risk of cyber-attacks and data breaches. 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 or breach laws and agreements 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. Additionally, cyber-attacks can be difficult to prevent, detect or contain. We cannot rule out the possibility that there may have been cyber-attacks that have been successful and/or evaded our detection. We continue to invest in risk mitigating actions; however, there can be no assurance that such investments and actions will prevent or detect future cyber-attacks.

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 are collected, stored and processed through us, either by us or by our business partners or subcontractors. We have outsourced a significant portion of our IT operations, as well as the network and information systems that we sell to third parties or for whose security and reliability we may otherwise be accountable. 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. Additionally, governmental authorities may use our networks products to access the personal data of individuals without our involvement; for example, through the so-called lawful intercept capabilities of network infrastructure, impairing our reputation.

Our business is also vulnerable to theft, fraud or other forms of deception, sabotage and intentional acts of vandalism by third parties and employees. Unauthorised access to or modification, misappropriation or loss of our intellectual property and confidential information, including personal data, could result in litigation and potential liability to customers, suppliers and other third parties, harm our competitive position, reduce the value of our investment in R&D and other strategic initiatives or damage our brand and reputation, which could have a material adverse effect on our business, results of operations or financial condition. Additionally, the cost and operational consequences of implementing further information system protection measures, especially if prescribed by national authorities, could be significant. We may not be successful in implementing such measures in due time, which could cause business disruptions and be more expensive, time consuming and resource-intensive. Such disruptions could adversely impact our business.

Inefficiencies, breaches, malfunctions or disruptions of information technology systems and processes could have a material adverse effect on our business and results of operations. As our business operations, including those we have outsourced, rely on complex IT systems, networks and related services, our reliance on the precautions taken by external companies to ensure the reliability of our and their IT systems, networks

and related services is increasing. Consequently, certain disruptions in IT systems and networks affecting our external providers could also have a material adverse effect on our business.

Our operations rely on the efficient and uninterrupted operation of complex and centralised IT systems, networks and processes, which are integrated with those of third parties. All IT systems, networks and processes are potentially vulnerable to damage, breaches, malfunction or interruption from a variety of sources. We are, to a significant extent, relying on third parties for the provision of IT services. We may experience disruptions if our partners do not deliver as expected or if we are unable to successfully manage systems and processes together with our business partners. The ongoing trend to Cloud-based architectures and network function virtualisation has introduced further complexity and associated risk.

We are constantly seeking to improve the quality and security of our IT systems. For instance, we have introduced new significant IT solutions in recent years and outsourced certain functions, increasing our dependence on the reliability of external providers as well as the security of communication with them. 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 on demand-based services and certain other services that are used over the internet rather than using a 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 IT systems and processes.

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 their strong technical and contractual engagements in IT 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 IT 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 IT systems, processes, networks or data leakages, could have a material adverse effect on our business, results of operations and brand value. Additionally, if we fail to successfully secure our IT, this may have a material adverse effect on our business and results of operations. A disruption of services relying on our IT, for instance, could cause significant discontent among users resulting in claims, contractual penalties or deterioration of our brand value.

Our Nokia Technologies business group aims to generate net sales and profitability primarily through licensing of the Nokia patents, technologies and the Nokia brand. We are also engaged with other business ventures including technology innovation and incubation. Expected net sales and profitability for these businesses may not materialise as planned or at all. We may also be subject to liabilities related to our divested Digital Health business.

In addition to patent licensing and monetisation, the Nokia Technologies business group generates net sales and profits through business ventures related to Nokia brand and technology licensing.

In 2018, we sold the Digital Health business and focused the Nokia Technologies business group on licensing. Although we divested the Digital Health business and no longer own or control it, the possibility of continuing liabilities remains, be it from the buyer of the business, consumers or other purchasers of digital health products bearing the Nokia name, or regulatory or enforcement bodies seeking to hold Nokia responsible for regulatory or compliance failures relating to the products that occurred on our watch. The outcome of any such claims or proceedings may be difficult to predict and could have a material adverse effect on our financial condition.

Nokia Technologies has a strategic agreement covering branding rights and intellectual property licensing with HMD Global. Under the agreement, Nokia receives royalty payments from HMD Global for sales of Nokia branded mobile phones and tablets, covering both brand and patent licensing. As such, the amount of income and royalty payments for Nokia are dependent on the sales volumes and financial position of HMD Global and HMD Global continuing to make payments to Nokia. In 2018, HMD Global renewed and extended devices in its Nokia-branded mobile phone portfolio. Nokia is also exploring new opportunities to license the brand beyond mobile devices and tablets. There can be no assurance that we will successfully reach additional new brand licensing arrangements at all or on terms that prove satisfactory to us. The agreement with HMD Global limits Nokia's possibilities to license the Nokia brand for certain types of devices over an agreed time and as such limiting Nokia's licensing possibilities with respect to such devices.

Additionally, licensing the Nokia brand to HMD Global or to other companies could – in cases where the licensee acts inconsistently with our ethical, compliance or quality standards – negatively affect our reputation

and the value of our brand, thus diminishing the business potential with respect to utilising our brand for licensing opportunities or otherwise having a negative effect on our business. Nokia has limitations in its ability to influence HMD Global in its business and other operations, exposing us to potential adverse effects from the use of the Nokia brand by HMD Global or other adverse developments encountered by HMD Global that become attributable to Nokia through association and HMD Global being a licensee of the Nokia brand.

The industries in which we operate, or may operate in the future, are generally fast-paced, rapidly evolving and innovative. Such industries are at different levels of maturity, and there can be no assurances that any investment we make will yield an expected return or result in the intended benefits. Additionally, we are entering into new business areas based on our technology assets and may explore new business ventures. Such business areas or plans may be adversely affected by adverse industry and market developments in the numerous diverse markets in which we operate, as well as by general economic conditions globally and regionally. As such, the investments may not be profitable or achieve the targeted rates of return.

There can be no assurances that our Nokia Technologies business group will be successful in innovation and incubation or in generating net sales and profits through its business plans, for instance in technology and brand licensing.

We operate in many jurisdictions around the world, and we are subject to various legal frameworks regulating corruption, fraud, trade policies, and other risk areas. At any given time, we may be subject to inspections, investigations, claims, and government proceedings, and the extent and outcome of such proceedings may be difficult to estimate with any certainty. We may be subject to material fines, penalties and other sanctions as a result of such investigations.

Bribery and anti-corruption laws in effect in many countries prohibit companies and their intermediaries from making improper payments to public officials for the purpose of obtaining new business or maintaining existing business relationships. Certain anti-corruption laws such as the United States Foreign Corrupt Practices Act ("FCPA") also require the maintenance of proper books and records, and the implementation of controls and procedures in order to ensure that a company's operations do not involve corrupt payments. Since we operate throughout the world, and given that some of our customers are government-owned entities and that our projects and agreements often require approvals from public officials, there is a risk that our employees, suppliers, consultants or commercial third party representatives may take actions that are in violation of our policies and of applicable anti-corruption laws.

In many parts of the world where we currently operate or seek to expand our business, local practices and customs may be inconsistent with our policies, including the Nokia Code of Conduct, and could violate anti-corruption laws, including the FCPA and the UK Bribery Act 2010, and applicable European Union regulations, as well as applicable economic sanctions and embargoes. Our employees, or other parties acting on our behalf, could violate policies and procedures intended to promote compliance with anti-corruption laws or economic 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 organisation, 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 reputational harm and loss of business and adversely affect our brand and reputation. 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 results and costs of such investigations or claims may be difficult to predict and could lead to, for instance, lengthy disputes, fines, fees or indemnities, costly settlement or the deterioration of the Nokia brand.

With the acquisition of Alcatel Lucent, any historical issues with Alcatel Lucent's operations may be attributed to or the responsibility of Nokia. In the past, Alcatel Lucent has experienced both actual and alleged violations of anti-corruption laws and been required to make trade compliance related disclosures to the Bureau of Industry and Security ("BIS"). As a result of FCPA violations in the past, Alcatel Lucent had to pay substantial amounts in fines, penalties and disgorgement of profits to government enforcement agencies in the United States and elsewhere. We may be subject to claims, fines, investigations or assessments for conduct that we failed to or were unable to discover or identify in the course of performing our due diligence investigations of Alcatel Lucent, including unknown or unasserted liabilities and issues relating to fraud, trade compliance, non-compliance with applicable laws and regulations, improper accounting policies or other improper activities.

Any damages, fines, penalties or other sanctions or consequences attributable to us could have a material adverse effect on our brand, reputation or financial position.

We may be adversely affected by developments with respect to customer financing or extended payment terms that we provide our customers.

Mobile operators in certain markets may require their suppliers, including us, to arrange, facilitate or provide financing in order to obtain sales or business. Similarly, operators may require extended payment terms. In certain 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 marketing requirement, we arrange and facilitate financing or provide extended payment terms to a number of our customers, typically supported by export credit agencies or through the sale of related deferred receivables. In the event, that export credit agencies face future constraints on their ability or willingness to provide financing to our customers, or there is insufficient demand to purchase their receivables, such events could have a material adverse effect on our business and financial condition. We have agreed to extended payment terms for a number of our customers, and may continue to do so in the future. Extended payment terms may 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.

We cannot guarantee that we will be successful in arranging, facilitating or providing required financing, including extended payment terms to our customers, particularly in difficult financial conditions on the market. Additionally, certain of our competitors may have greater access to credit financing, which could adversely affect our ability to compete successfully for business opportunities in the markets in which we operate. Our ability to manage our total customer financing and trade credit exposure depends on a number of factors, including capital structure, market conditions affecting our customers, the levels and terms of credit available to us and our customers, the cooperation of export credit agencies and our ability to mitigate exposure on acceptable terms. We may be unsuccessful in managing the challenges associated with the customer financing and trade credit exposure that we 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 significant for us 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 constraints.

We have sold certain receivables to banks or other financial institutions to mitigate the payment risk and improve our liquidity, and any significant change in our ability to continue this practice could impair our capability to mitigate such payment risk and to manage our liquidity.

We may not be able to collect outstanding guarantees and bonds that could limit our possibilities to issue new guarantees and/or bonds, which are required in customer agreements or practices. We also face risks that such commercial guarantees and bonds may be unfairly called.

We have operations in many countries with different tax laws and rules, which may result in complex tax issues and disputes.

Taxation or other fees collected by governments or governmental agencies may result in unexpected payment obligations, and in response to prevailing difficult economic conditions in the public sector, coupled with fundamental changes in international tax regulations, there may be an increased aggressiveness in collecting such fees. We may be obliged to pay additional taxes for past periods as a result of changes in law, or changes of tax authority practice or interpretation (possibly with retroactive effect in certain cases), resulting potentially in a material adverse effect on our cash flow and financial position. Our business and activities cover multiple jurisdictions and are subject to complex tax laws and rules as well as diverse tax authority practices and interpretations. Despite our governance and compliance procedures, there might be unintended consequences from changes in interpretation of complex tax regulations or retroactive implications in tax reforms to our business, subsidiaries and joint ventures. The U.S. government passed a comprehensive set of tax reforms in 2017 that impact many multinational businesses, including ours. The U.S. tax authority continues to issue regulatory guidance on many of these reforms, and interpretation of the reform package's provisions is likewise on-going. Such regulatory guidance or new interpretations may have an unfavorable impact on us. As a company with global operations we are subject to tax investigations in various jurisdictions, and such

proceedings can be lengthy, involve actions that can hinder local operations and affect unrelated parts of our business, and the outcome of such proceedings is difficult to predict. While we have made provisions for certain tax issues, the provisions we have made may not be adequate to cover such increases.

The taxes for which we make provisions, such as income taxes, indirect taxes and social taxes, could increase significantly in the future as a result of changes in applicable tax laws or global guidance in the area of transfer pricing in the countries in which we operate. Our business and the investments we make globally, especially in emerging markets, are subject to uncertainties, including unfavourable or unpredictable changes in tax laws (possibly with retroactive effect in certain cases), taxation treatment and regulatory proceedings, including tax audits. The impact of these factors is dependent on the types of revenue and mix of profit we generate in various countries, for instance, income from sales of products or services may have different tax treatments.

We may face adverse tax consequences due to our past acquisitions and divestments, including, but not limited to, stamp duties, land transfer taxes, franchise taxes and other levies. Additionally, there may be other potential tax liabilities which we are not currently aware of but which may result in significant tax consequences now or in the future.

In the context of our sale of the D&S business to Microsoft, we are required to indemnify Microsoft for certain tax liabilities, including (i) tax liabilities of the Nokia entities acquired by Microsoft in connection with the closing of the Sale of the D&S Business, (ii) tax liabilities associated with the assets acquired by Microsoft and attributable to tax periods ending on or prior to the closing date of the Sale of the D&S Business, and (iii) tax liabilities relating to the pre-closing portion of any taxable period that includes the closing date of the Sale of the D&S Business.

There may also be unforeseen tax expenses that turn out to have an unfavourable impact on us. As a result, and given the inherently unpredictable nature of taxation, there can be no assurance that our tax rate will remain at the current level or that cash flows regarding taxes will be stable.

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

Deferred tax assets recognised 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 realised 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 unfavourably affected in the event that no tax benefits are recognised for certain deferred tax items.

We may be unable to retain, motivate, develop and recruit appropriately skilled employees or may fail in workforce balancing.

Our success is dependent on our ability to retain, motivate, develop and recruit appropriately skilled employees. The market for skilled employees and leaders in our business is extremely competitive. We continuously work on developing a corporate culture that is motivational, based on equal opportunities and encourages creativity and continuous learning to meet the challenges.

Our workforce has fluctuated over recent years as we have introduced changes in our strategy to respond to our business targets and endeavours. Such changes and uncertainty have caused and may in the future cause disruption and dissatisfaction among employees, as well as fatigue due to the cumulative effect of several reorganisations over the past years, our efforts to continue to evolve our business, and maximise operational efficiency. These efforts might include implementing new organisational structures such as reorganisation, strategic changes, M&A activity, competence development, relocation of employees, the closing or consolidation of sites, or insourcing/outsourcing parts of the business operations. As a result, employee motivation, energy, focus, morale and productivity may be reduced, causing inefficiencies and other problems across the organisation resulting in the loss of key employees and increased costs in resolving and addressing such matters. The loss of key employees could result in resource gaps, some of which may only be noticed after a certain period of time or which negatively impact our relationship with customers, vendors or other business partners. Accordingly, we may need to take measures to attract, retain and motivate skilled employees.

Succession planning, especially with respect to key employees and leaders, is crucial to avoid business disruptions and to ensure the appropriate transfer of knowledge. We have, and may from time to time, acquire businesses or complete other transactions where retaining key employees may be crucial to obtain the intended benefits of such transactions. 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 required employees. We believe this will require significant time, attention and resources from our senior management and other key employees within our organisation 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 may have a material adverse effect on our business and results of operations.

Having skilful, motivated people in the right places is a key factor for the success of our strategy. However, we may fail in our efforts to rebalance our workforce as planned and may result in larger than expected costs, or we may not be able to complete such efforts, for instance, due to legal restrictions, resulting in a non-optimal workforce that could hinder our ability to reach targeted cost savings. Relationships with employee representatives are generally managed at the site level in accordance with country-specific legislation 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 or inability to implement changes to our organisation 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 higher ongoing labour costs, which could have a material adverse effect on our business and results of operations.

We may face problems or disruptions in our manufacturing, service creation, delivery, logistics or supply chain. Additionally, adverse events may have a profound impact on production sites or the production sites of our suppliers, which are geographically concentrated.

Our product manufacturing, service creation and delivery, as well as our logistics, or the components of such activities that we have outsourced to third parties, expose us to various risks and potential liabilities, including those related to compliance with laws and regulations, exposure to environmental liabilities or other claims and vulnerability to adverse natural or man-made disasters. Also, our dependence on third-party suppliers has increased as a result of our strategic decisions to outsource certain activities. Additionally, if we are subjected to negative publicity with respect to the activities that we manage or that are managed by third parties, we may experience an adverse impact to our reputation that can have a negative effect, for instance, on our brand and sales. These operations are continuously monitored and modified in an effort to improve the efficiency and flexibility of our manufacturing, service creation and delivery, as well as our logistics function and ability to produce, create and distribute continuously changing volumes. We, or third parties that we outsource services to, may experience difficulties in adapting our supply to meet the changing demand for our products and services, ramping up and down production at our facilities, adjusting our 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, service creation and delivery process or achieving required efficiencies and flexibility

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 certain cases, a particular component or service may be available only from a limited number of suppliers or from a single supplier in the supply chain. 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, our efforts to meet our 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 at the same time with our competitors. If we fail to properly anticipate customer demand, an over-supply or under-supply of components and production or services delivery capacity could occur. In many cases, some of our competitors utilise the same contract manufacturers, component suppliers and service vendors. If they have purchased capacity or components ahead of us, or if there is significant consolidation in the relevant supplier base, this could prevent us from acquiring the required components or services, which could limit our ability to supply our customers or increase our costs.

Our suppliers or a supplier may fail to meet our supplier requirements, such as our and our customers' product quality, safety, security and other standards. Certain suppliers may not comply with local laws, including, among others, local labour laws. Consequently, some of our products may be unacceptable to us or to our customers. Our products are highly complex and defects in their design, manufacture and associated hardware, software and content have occurred in the past and may continue to occur in the future. Defects and other quality issues may result from, among other things, failure in our own product manufacturing and service creation and delivery, as well as failure of our suppliers to comply with our 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, loss of intellectual property, liabilities for network outages, court fees and fines due to breaches of significantly increasing regulatory privacy requirements and related negative publicity, 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 may also be subject to damages due to product liability claims arising from defective products and components. We make provisions to cover our estimated warranty costs for our products and pending liability claims. 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.

We may 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 brand and claims for compensation resulting from our decisions on where to place and how to utilise 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. 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, cause delivery of insufficient or excess volumes compared to our own estimates or customer requirements, or otherwise have a material adverse effect on our sales and results of operations or our reputation and brand value.

Many of our production sites or the production sites of our suppliers are geographically concentrated, with a majority of our suppliers based in Asia. We rely on efficient logistic chain elements, such as regional distribution hubs or transport chain elements (main ports, streets, and airways). In the event that any of these geographic areas are affected by any adverse conditions, such as severe impacts of climate change or other environmental events, natural or man-made disasters, geopolitical disruptions, civil unrest or health crises that disrupt production or deliveries from our suppliers, our ability to deliver our products on a timely basis could be adversely affected, which may have a material adverse effect on our business and results of operations.

An unfavourable outcome of litigation, arbitrations, agreement-related disputes or product liability-related allegations against our business could have a material adverse effect on us.

We are a party to lawsuits, arbitrations, agreement-related disputes and product liability-related allegations in the normal course of our business. Litigation, arbitration or agreement-related disputes 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 agreement-related disputes are difficult to predict. An unfavourable resolution of a particular lawsuit, arbitration or agreement-related dispute could have a material adverse effect on our business, results of operations, financial condition and reputation. The investment or acquisition decisions we make may subject us to litigation arising from minority shareholders' actions and investor dissatisfaction with the activities of our business. Shareholder disputes, if resolved against us, could have a material adverse effect on our financial condition and results of operations as well as expose us to disputes or litigation.

We record provisions for pending claims when we determine that an unfavourable outcome is likely and the loss can reasonably be estimated. Due to the inherent uncertain nature of legal proceedings, the ultimate outcome or actual cost of settlement may materially differ from estimates. We believe our provisions for pending claims are appropriate. The ultimate outcome, however, may differ from the provided estimate, which could have either a positive or an adverse impact on our results of operations and financial condition.

Although our products are designed to meet all relevant safety standards and other recommendations and regulatory requirements 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, which could have a material adverse effect on our business and financial condition. 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 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.

We may not have access to sources of funding on favourable terms, or at all.

We rely on multiple sources of funding for short-term and long-term capital and aim to minimise the liquidity risk by maintaining a sufficient cash position and having committed credit lines in place. However, there can be no assurances that we will be able to generate sufficient amounts of capital or to maintain an efficient capital structure from time to time.

We also may not be able to have access to additional sources of funds that we may need from time to time with reasonable terms, or at all. If we cannot access capital on a commercially viable basis, our business, financial condition and cash flow could materially suffer.

We may not be able to re-establish investment grade rating or maintain our credit ratings.

Moody's, Standard & Poor's and other credit rating agencies have assigned credit ratings to us and we have set a goal of re-establishing investment grade credit rating. There can be no assurances that we will be able to achieve an investment grade credit rating at the targeted time, or at all.

In the event our credit rating is downgraded, it could have a material adverse effect, for instance, on our cost of funds and related margins, our business and results of operations, financial condition, liquidity, or access to capital markets.

We may be unable to successfully implement planned transactions or transactions may result in liabilities. We may be unable to realise the anticipated benefits, synergies, cost savings or efficiencies from acquisitions, and we may encounter issues or inefficiencies related to our organisational and operational structure, including being unable to successfully implement our business plans.

From time to time, we may consider possible transactions that could complement our existing operations and enable us to grow our business or shift focus via divestment of our existing businesses or operations. We have made a number of acquisitions and divestments, in addition to the recent acquisitions of SpaceTime Insight and Unium and divestment of Digital Health business. We may engage in further transactions, such as acquisitions, divestments, mergers or joint ventures in the future. Additionally, we make investments to companies through certain investment funds, including NGP Capital. There can be no assurance that these transactions will be successful or yield expected benefits and results or that investments will result in new successful technologies that we will be able to monetise.

We cannot provide any assurances that any transaction we initiate, will ultimately be completed on favorable terms or provide the benefits or return on investment that we had originally anticipated. 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 result in changes to the scope of the transaction. Furthermore, the assumptions may be incorrect in evaluating a transaction. Therefore, we may be exposed to unknown, larger or contingent liabilities of acquired businesses, such as those related to contractual obligations, taxes, pensions, environmental liabilities, disputes and compliance matters. Additionally, there are multiple risks that can hamper or delay a transaction, including;

- unanticipated delays or inability to proceed with transactions as planned, for instance, due to issues in obtaining regulatory or shareholder approvals, completing public offers or proposals, the imposition of conditions on the acquirer of a business to divest certain assets or impose other obligations due to competition laws or other regulations;

- 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 potential loss of key employees, customers and suppliers;
- 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;
- potential limitations on our ability to control any joint ventures; 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 or with the integration of the business which is acquired;
- 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 purchasers or sellers;
- our dependence on some of the divested businesses as our suppliers in the future; and
- high transaction costs.

Significant transactions may result in claims between the parties, (including, but not limited to, any indemnification claims), which can consume time and management attention, and the outcome of any claims related to significant transactions may be difficult to predict and could have a material adverse effect on our financial condition.

The level of effort required for successful integration depends on the complexity of the acquired business. Integration process involves certain risks and uncertainties, some of which are outside our control, and there can be no assurance that we will be able to realise the intended organisational and operational benefits and potentially targeted cost savings related to our business plans in the manner or within the timeframe currently anticipated. Such risks and uncertainties include, among others, the distraction of our management's attention from our business resulting in performance shortfalls, the disruption of our ongoing business, interference with our ability to maintain our relationships with customers, vendors, regulators and employees and inconsistencies in our services, standards, quality, product road maps, controls, procedures and policies, any of which could have a material adverse effect on our business, financial condition and results of operations.

Potential challenges related to acquisitions that we may encounter regarding the integration process and operations, include the following:

- adverse contractual issues with respect to various agreements with third parties (including joint venture agreements, customers, vendors, licensees or other contractual parties), certain financing facilities, pension fund agreements, agreements for the performance of engineering and related work/services, IT agreements, technology, intellectual property rights and licenses, employment agreements, or pension and other post-retirement benefits-related liability issues;
- disruptions caused, for instance, by reorganisations, which may result in inefficiency within the new organisation through loss of key employees or delays in implementing our intended structural changes, among other issues;

- inability to achieve the targeted organisational changes, efficiencies or synergies in the targeted time or to the extent targeted or with targeted implementation costs, for instance due to inability to streamline overlapping products and services efficiently, rationalise our organisation and overheads, reduce overheads and costs or achieve targeted efficiencies, and the risk of new and additional costs associated with implementing such changes;
- inability to rationalise or streamline our organisation or product lines or to retire legacy products and related services as a result of pre-existing customer commitments;
- loss of, or lower volume of, business from key customers, or the inability to renew agreements with existing customers or establish new customer relationships, including limitations linked to customer policies with respect to aggregate vendor share or supplier diversity policies or increased efforts from competitors aiming to capitalise on disruptions;
- conditions and burdens imposed by laws, regulators or industry standards on our business or adverse regulatory or industry developments or litigation affecting us, as a result of the acquisition of Alcatel Lucent or otherwise;
- issues relating to fraud, non-compliance with applicable laws and regulations, improper accounting policies, improper internal control or other improper activities;
- challenges relating to the consolidation or ongoing integration of corporate, financial data and reporting, control and administrative functions, including cash management, foreign exchange/hedging operations, internal and other financing, insurance, financial control and reporting, IT, communications, legal and compliance and other administrative functions;
- the coordination of R&D, marketing and other support functions may fail or cause inefficiencies or other administrative burdens caused by operating the combined business; and
- our ability to eliminate the complexity of our corporate structure following the acquisition.

During the course of the ongoing integration process, we have been made aware of certain practices relating to compliance issues at the former Alcatel Lucent business that have raised concerns. We have initiated an internal investigation and voluntarily reported the matter to the relevant regulatory authorities, with whom we are cooperating with a view to resolving the matter. The resolution of this matter could result in potential criminal or civil penalties, including the possibility of material monetary fines.

Additionally, the anticipated cost reductions and other benefits expected to arise from the acquisitions and integration of businesses, as well as related costs to implement such measures, are derived from our estimates, which are uncertain. The underlying assumptions are inherently uncertain and subject to a variety of significant business, economic, and competitive factors, risks and uncertainties that could cause our actual results to differ materially from those contained in the expected synergy benefits and related cost estimates.

We are involved in joint ventures and are exposed to risks inherent to companies under joint management.

We have a number of joint ventures in various parts of the world. The agreements related to our joint ventures may require unanimous consent or the affirmative vote of a qualified majority of the shareholders to take certain actions, thereby possibly slowing down the decision-making process. In addition, joint venture companies involve inherent risks such as those associated with a complex corporate governance structure, including lack of transparency and consequent risks of compliance breaches or other similar issues, or issues in dissolving such entities or divesting their shareholdings, assets and liabilities, and also may involve negative public perceptions caused by the joint venture partner that are adverse to us.

Performance failures of our partners, as well as failures to agree to partnering arrangements with third parties could adversely affect us.

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 be unable to bring our products, services or technologies to market successfully or in a timely manner, which could have a material adverse effect on our operations. We are increasingly collaborating and partnering with third parties to develop technologies, products and services, as well as seeking new revenue streams through partnering arrangements.

We also depend on third-party partners in our efforts to monetise our brands, including the Nokia and Nokia Bell Labs brands and technologies, for instance, through arrangements where the brands are licensed to third-party products and the product development and distribution are handled partly or in full 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 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 and provide products and services that are commercially viable and meet our, our customers' and consumers' quality, safety, security and other standards in a timely manner could be hampered from performance or other failures. For instance, if a partner acts inconsistently with our ethical, sustainability, compliance, brand, or quality standards, this can negatively affect our reputation, the value of our brand, and the business outcome of our partnerships.

In many areas, including IT, finance and human resources-related arrangements, a failure to maintain an efficient relationship with the selected partner may lead to ongoing operational problems or even to severe business disruptions, and we cannot give assurances that the availability of the processes and services upon which we rely on will not be interrupted, which could have a material adverse effect on our business operations. Performance problems may result in missed reporting deadlines, financial losses, missed business opportunities and reputational harm. In addition, as management's focus shifts from a direct to an indirect operational control in these areas, there is a risk that without active management and monitoring of the relationship, the services provided may be below appropriate quality standards. Partners may not meet agreed service levels, in which case, depending on the impacted service, our contractual remedies may not fully cure all of the damages we may suffer. This is particularly true for any deficiencies that would impact the reporting requirements applicable to us as a company listed on multiple stock exchanges.

In order to implement outsourcing arrangements, we may be required to implement changes in our business practices and processes, for instance, to capture economies of scale and operational efficiencies, and to reflect a different way of doing business. Consequently, business processes that were customised for individual business groups or for us generally may be converted to a more standardised format. During a transition to outsourcing, our employees may need to train the partner's staff or be trained in the partners' systems, potentially resulting in the distraction of our employees. Adjustments to staff size and transfer of employees to the partner's companies could have an adverse effect on us, for instance, through impacting the morale of our employees and raising complex labour law issues and resulting in the loss of key personnel. Additionally, partnering and outsourcing arrangements can create a dependency on the outsourcing company, causing issues in our ability to learn from day-to-day responsibilities, gain hands-on experience and adapt to changing business needs. Concerns could equally arise from giving third parties access to confidential data, strategic technology applications and books and records. There is also a risk that we may not be able to determine whether controls have been effectively implemented, and whether the partner company's performance monitoring reports are accurate.

The carrying amount of our goodwill may not be recoverable.

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. 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 we do not generate revenues from our businesses as anticipated, our businesses may not generate sufficient positive operating cash flows. This, or other factors, may lead to a decrease in the value of our assets, including intangible assets and the goodwill attributed to our businesses, resulting in impairment charges that may adversely affect our net profit for the year. While we believe the estimated recoverable values are reasonable, actual performance in the short- and long-term and our assumptions on which we base our calculations could materially differ from our forecasts, which could impact future estimates of our businesses' recoverable values, and may result in impairment charges.

The amount of dividend and equity return distributed to shareholders for each financial period is uncertain and is affected by exchange rate fluctuations.

We cannot assure that we will pay dividends or deliver return on equity on the shares issued by us, nor is there any assurance as to the amount of any dividend or return of equity we may pay, including but not limited to situations where we make commitments to increase our dividends. The payment and the amount of any dividend or return of equity is subject to the discretion of our Board and, ultimately, the general meeting of our shareholders and will depend on available cash balances, retained earnings, anticipated cash needs, the results of our operations and our financial condition and terms of outstanding indebtedness, as well as other relevant factors such as restrictions, prohibitions or limitations imposed by applicable law.

We are exposed to pension, employee fund-related and employee healthcare-related risks and we may be unsuccessful in our ability to avoid or control costs resulting from a need for increased funding.

We are exposed to various employee cost-related risks, including those related to pension, employee fund-related obligations and employee healthcare-related risks. In the United States, we maintain significant employee pension benefit plans and a significant retiree welfare benefit plan (providing post-retirement healthcare benefits and post-retirement life insurance coverage). Outside the United States, we contribute to pension schemes for large numbers of current and former employees. The U.S. and non-U.S. plans and schemes have funding requirements that depend on, among other things, various legal requirements, how assets set aside to pay for those obligations are invested, the performance of financial markets, interest rates, assumptions regarding the life expectancy of covered employees and retirees, and medical cost inflation and medical care utilisation. To the extent that any of those variables change, the funding required for those plans/schemes may increase, and we may be unsuccessful in our ability to avoid or control costs resulting from such increased funding requirements. Our inability to avoid or control such costs could have a material adverse effect on our results of operations and our financial position.

With respect to our employee costs and pension and other post-retirement obligations, we face the following risks, among others:

- financial market performance and volatility in asset values and discount rates affect the funded status of our pension obligations and could increase funding requirements, including legally required minimum contributions;
- our pension plan participants and post-retirement health plan participants may live longer than has been assumed, which would result in an increase in our benefit obligations. We cannot be certain that the longevity of the participants in our pension plans or retiree healthcare plan will not exceed that indicated by the mortality tables we currently use or that future updates to those tables will not reflect materially longer life expectancies;
- we currently fund, and expect to be able to continue to fund, our United States post-retirement healthcare and group life insurance costs for our formerly represented retirees with excess pension assets in our (United States) formerly represented pension plan, as permitted under Section 420 of the United States Internal Revenue Code. A deterioration in the funded status of that pension plan could negatively affect our ability to continue making Section 420 transfers. Section 420 is currently set to expire in 2025.
- we currently provide post-retirement group life insurance coverage for a closed group of former non-represented employees who meet stated age and service criteria. This benefit obligation is largely insured through an experience-rated group life insurance policy issued by a reputable insurer, the premiums for which are paid from a voluntary employees' beneficiary association (veba) trust. Based on current actuarial and return-on-asset assumptions and the present level and structure of this group life insurance obligation, we believe that we can continue to fund the premiums for this policy from this trust for several more years. Once the trust's assets are depleted, however, the company will bear the annual premium cost associated with this benefit. Although we expect to be able, in the future, to fund this cost from excess pension assets in our (United States) non-represented pension plan, the level of excess pension assets in that plan in any given year may be insufficient to cover the annual premium cost.

We engage in the installation and maintenance of undersea telecommunications cable networks, and in the course of this activity we may cause damage to existing undersea infrastructure, for which we may ultimately be held responsible.

We engage in the supply of submarine optical fibre cable networks linking mainland to islands, island to island or several points along a coast, with activities also expanding to the supply of broadband infrastructure to oil and gas platforms and other offshore installations. Although thorough surveys, permit processes and safety procedures are implemented during the planning and deployment phases of all of these activities, there is a risk that previously-laid infrastructure, such as electric cables or oil pipelines, may go undetected despite such precautions, and be damaged during the process of laying the telecommunications cable, potentially causing business interruption to third parties operating in the same area and accidental pollution or other disturbances or damage to the environment. While we have contractual limitations in place and maintain insurance coverage to

limit our exposure, we cannot provide any assurance that these protections will be sufficient to cover such exposure entirely.

Factors which are material for the purpose of assessing the market risks associated with Notes issued under the Programme

Risks related to the structure of a particular issue of Notes

A wide range of Notes may be issued under the Programme. A number of these Notes may have features which contain particular risks for potential investors. Set out below is a description of the most common such features:

Notes subject to optional redemption by the Issuer

An optional redemption feature of Notes is likely to limit their market value. During any period when the Issuer may elect to redeem Notes, the market value of those Notes generally will not rise substantially above the price at which they can be redeemed. This also may be true prior to any redemption period.

The Issuer may be expected to redeem Notes when its cost of borrowing is lower than the interest rate on the Notes. At those times, an investor generally would not be able to reinvest the redemption proceeds at an effective interest rate as high as the interest rate on the Notes being redeemed and may only be able to do so at a significantly lower rate. Potential investors should consider reinvestment risk in light of other investments available at that time.

Fixed/Floating Rate Notes

Fixed/Floating Rate Notes bear interest at a rate that converts from a fixed rate to a floating rate, or from a floating rate to a fixed rate. Such a feature to convert the interest basis, and any conversion of the interest basis may affect the secondary market and the market value of such Notes as the change of interest basis may result in a lower interest return for Noteholders. Where the Notes convert from a fixed rate to a floating rate, the spread on the Fixed/Floating Rate Notes may be less favourable than then prevailing spreads on comparable Floating Rate Notes tied to the same reference rate. In addition, the new floating rate at any time may be lower than the rates on other Notes. Where the Notes convert from a floating rate to a fixed rate, the fixed rate may be lower than then prevailing rates on those Notes and could affect the market value of an investment in the relevant Notes.

Notes issued at a substantial discount or premium

The market values of securities issued at a substantial discount or premium from their principal amount tend to fluctuate more in relation to general changes in interest rates than do prices for conventional interest-bearing securities. Generally, the longer the remaining term of the securities, the greater the price volatility as compared to conventional interest-bearing securities with comparable maturities.

The regulation and reform of "benchmarks" may adversely affect the value of Notes linked to or referencing such "benchmarks"

Interest rates and indices which are deemed to be "benchmarks", including LIBOR, EURIBOR, STIBOR and NIBOR, are the subject of recent national and international regulatory guidance and proposals for reform. Some of these reforms are already effective whilst others are still to be implemented. These reforms may cause such benchmarks to perform differently than in the past, to disappear entirely, or have other consequences which cannot be predicted. Any such consequence could have a material adverse effect on any Notes linked to or referencing such a "benchmark". Regulation (EU) 2016/1011 (the "**Benchmarks Regulation**") was published in the Official Journal of the EU on 29 June 2016 and applies from 1 January 2018. The Benchmarks Regulation applies to the provision of benchmarks, the contribution of input data to a benchmark and the use of a benchmark within the EU. It will, among other things, (i) require benchmark administrators to be authorised or registered (or, if non-EU-based, to be subject to an equivalent regime or otherwise recognised or endorsed) and (ii) prevent certain uses by EU supervised entities of "benchmarks" of administrators that are not authorised or registered (or, if non-EU based, not deemed equivalent or recognised or endorsed).

The Benchmarks Regulation could have a material impact on any Notes linked to or referencing a "benchmark", in particular, if the methodology or other terms of the "benchmark" are changed in order to comply with the requirements of the Benchmarks Regulation. Such changes could, among other things, have the effect of reducing, increasing or otherwise affecting the volatility of the published rate or level of the "benchmark".

More broadly, any of the international or national reforms, or the general increased regulatory scrutiny of "benchmarks", could increase the costs and risks of administering or otherwise participating in the setting of a

"benchmark" and complying with any such regulations or requirements. Such factors may have the following effects on certain "benchmarks": (i) discourage market participants from continuing to administer or contribute to the "benchmark"; (ii) trigger changes in the rules or methodologies used in the "benchmark"; or (iii) lead to the disappearance of the "benchmark". Any of the above changes or any other consequential changes as a result of international or national reforms or other initiatives or investigations, could have a material adverse effect on the value of and return on any Notes linked to or referencing a "benchmark".

Investors should consult their own independent advisers and make their own assessment about the potential risks imposed by the Benchmarks Regulation reforms in making any investment decision with respect to any Notes linked to or referencing a "benchmark".

Future discontinuance of LIBOR may adversely affect the value of Floating Rate Notes which reference LIBOR

On 27 July 2017, the Chief Executive of the United Kingdom Financial Conduct Authority, which regulates LIBOR, announced that it does not intend to continue to persuade, or use its powers to compel, panel banks to submit rates for the calculation of LIBOR to the administrator of LIBOR after 2021. The announcement indicates that the continuation of LIBOR on the current basis is not guaranteed after 2021. It is not possible to predict whether, and to what extent, panel banks will continue to provide LIBOR submissions to the administrator of LIBOR going forwards. This may cause LIBOR to perform differently than it did in the past and may have other consequences which cannot be predicted.

Investors should be aware that, if LIBOR were discontinued or otherwise unavailable, the rate of interest on Floating Rate Notes which reference LIBOR will be determined for the relevant period by the fall-back provisions applicable to such Notes. Depending on the manner in which the LIBOR rate is to be determined under the Terms and Conditions, this may (i) if ISDA Determination applies, be reliant upon the provision by reference banks of offered quotations for the LIBOR rate which, depending on market circumstances, may not be available at the relevant time; or (ii) if Screen Rate Determination applies, result in the effective application of a fixed rate based on the rate which applied in the previous period when LIBOR was available. Any of the foregoing could have an adverse effect on the value or liquidity of, and return on, any Floating Rate Notes which reference LIBOR.

Risks related to Notes generally

Set out below is a brief description of certain risks relating to the Notes generally:

Modification and waivers

The conditions of the Notes contain provisions for calling meetings of Noteholders to consider matters affecting their interests generally. These provisions permit defined majorities to bind all Noteholders including Noteholders who did not attend and vote at the relevant meeting and Noteholders who voted in a manner contrary to the majority.

Change of law

The conditions of the Notes are based on English law in effect as at the date of this Base Prospectus. No assurance can be given as to the impact of any possible judicial decision or change to English law or administrative practice after the date of this Base Prospectus.

Notes where denominations involve integral multiples: definitive Notes

In relation to any issue of Notes which have denominations consisting of a minimum Specified Denomination plus one or more higher integral multiples of another smaller amount, it is possible that such Notes may be traded in amounts that are not integral multiples of such minimum Specified Denomination. In such a case a holder who, as a result of trading such amounts, holds an amount which is less than the minimum Specified Denomination in his account with the relevant clearing system at the relevant time may not receive a definitive Note in respect of such holding (should definitive Notes be printed) and would need to purchase a principal amount of Notes such that its holding amounts to a Specified Denomination.

If definitive Notes are issued, holders should be aware that definitive Notes which have a denomination that is not an integral multiple of the minimum Specified Denomination may be illiquid and difficult to trade.

Risks related to the market generally

Set out below is a brief description of the principal market risks, including liquidity risk, exchange rate risk, interest rate risk and credit risk:

The secondary market generally

Notes may have no established trading market when issued, and one may never develop. If a market does develop, it may not be very liquid. Therefore, investors may not be able to sell their Notes easily or at prices that will provide them with a yield comparable to similar investments that have a developed secondary market. This is particularly the case for Notes that are especially sensitive to interest rate, currency or market risks, are designed for specific investment objectives or strategies or have been structured to meet the investment requirements of limited categories of investors. These types of Notes generally would have a more limited secondary market and more price volatility than conventional debt securities. Illiquidity may have a severely adverse effect on the market value of Notes.

Exchange rate risks and exchange controls

The Issuer will pay principal and interest on the Notes in the Specified Currency. This presents certain risks relating to currency conversions if an investor's financial activities are denominated principally in a currency or currency unit (the "**Investor's Currency**") other than the Specified Currency. These include the risk that exchange rates may significantly change (including changes due to devaluation of the Specified Currency or revaluation of the Investor's Currency) and the risk that authorities with jurisdiction over the Investor's Currency may impose or modify exchange controls. An appreciation in the value of the Investor's Currency relative to the Specified Currency would decrease: (i) the Investor's Currency equivalent yield on the Notes; (ii) the Investor's Currency equivalent value of the principal payable on the Notes; and (iii) the Investor's Currency equivalent market value of the Notes.

Government and monetary authorities may impose (as some have done in the past) exchange controls that could adversely affect an applicable exchange rate. As a result, investors may receive less interest or principal than expected, or no interest or principal.

Interest rate risks

Investment in Fixed Rate Notes involves the risk that subsequent changes in market interest rates may adversely affect the value of the Fixed Rate Notes.

Credit ratings may not reflect all risks

One or more independent credit rating agencies may assign credit ratings to the Notes. The ratings may not reflect the potential impact of all risks related to structure, market, additional factors discussed above, and other factors that may affect the value of the Notes. A credit rating is not a recommendation to buy, sell or hold securities and may be revised or withdrawn by the credit rating agency at any time.

In general, European regulated investors are restricted under the CRA Regulation from using credit ratings for regulatory purposes, unless such ratings are issued by a credit rating agency established in the EU and registered under the CRA Regulation (and such registration has not been withdrawn or suspended), subject to transitional provisions that apply in certain circumstances whilst the registration application is pending. Such general restriction will also apply in the case of credit ratings issued by non-EU credit rating agencies, unless the relevant credit ratings are endorsed by an EU-registered credit rating agency or the relevant non-EU rating agency is certified in accordance with the CRA Regulation (and such endorsement action or certification, as the case may be, has not been withdrawn or suspended, subject to transitional provisions that apply in certain circumstances). The list of registered and certified rating agencies published by the European Securities and Markets Authority ("**ESMA**") on its website (at <http://www.esma.europa.eu/page/List-registered-and-certified-CRAs>) in accordance with the CRA Regulation is not conclusive evidence of the status of the relevant rating agency included in such list, as there may be delays between certain supervisory measures being taken against a relevant rating agency and the publication of the updated ESMA list.

Legal investment considerations may restrict certain investments

The investment activities of certain investors are subject to investment laws and regulations, or review or regulation by certain authorities. Each potential investor should consult its legal advisers to determine whether and to what extent (a) Notes are legal investments for it, (b) Notes can be used as collateral for various types of borrowing and (c) other restrictions apply to its purchase or pledge of any Notes. Financial institutions should consult their legal advisers or the appropriate regulators to determine the appropriate treatment of Notes under any applicable risk-based capital or similar rules.

FINAL TERMS, DRAWDOWN PROSPECTUSES AND SUPPLEMENTS

In this section, the expression "*necessary information*" means, in relation to any Tranche of Notes, the information necessary to enable investors to make an informed assessment of the assets and liabilities, financial position, profits and losses and prospects of the Issuer and of the rights attaching to the Notes. In relation to the different types of Notes which may be issued under the Programme from time to time, the Issuer has endeavoured to include in this Base Prospectus all of the necessary information, except for information relating to the Notes which is not known at the date of this Base Prospectus and which can only be determined at the time of an individual issue of a Tranche of Notes.

Any information relating to the Notes which is not included in this Base Prospectus, and which is required in order to complete the necessary information in relation to a Tranche of Notes, will be contained either in the relevant Final Terms or in a Drawdown Prospectus.

For a Tranche of Notes which is the subject of Final Terms, those Final Terms will, for the purposes of that Tranche of Notes only, complete this Base Prospectus and must be read in conjunction with this Base Prospectus. The terms and conditions applicable to any particular Tranche of Notes which is the subject of Final Terms are the Conditions as completed by the relevant Final Terms.

Each Drawdown Prospectus will be constituted by a single document containing the necessary information relating to the Issuer and the relevant Notes. The terms and conditions applicable to any particular Tranche of Notes which is the subject of a Drawdown Prospectus will be the Conditions as supplemented, amended and/or replaced to the extent described in the relevant Drawdown Prospectus. In the case of a Tranche of Notes which is the subject of a Drawdown Prospectus, each reference in this Base Prospectus to information being specified or identified in the relevant Final Terms shall be read and construed as a reference to such information being specified or identified in the relevant Drawdown Prospectus, unless the context requires otherwise.

In the event of any significant new factor, material mistake or inaccuracy relating to information included in this Base Prospectus and whose inclusion or removal from this Base Prospectus is necessary for the purpose of allowing an investor to make an informed assessment of the assets and liabilities, financial position, profits and losses and prospects of the Issuer and/or the rights attaching to the Notes, the Issuer will prepare a supplement to this Base Prospectus or publish a new Base Prospectus for use in connection with such Notes and any subsequent issue of Notes.

INFORMATION INCORPORATED BY REFERENCE

The following documents, which have previously been published or are published simultaneously with this Base Prospectus and have been filed with Euronext Dublin or approved by the Central Bank, shall be incorporated in, and form part of, this Base Prospectus:

- (a) the audited consolidated annual financial statements and auditor's report of the Issuer for the financial year ended 31 December 2016, which form part of the Issuer's annual accounts for the financial year ended 31 December 2016 and which can be found at pages 126 to 195 (inclusive) and page 212 to 216, respectively, of such annual accounts (https://www.nokia.com/sites/default/files/files/nokia_ar16_full_report_english_3.pdf);
- (b) the audited consolidated annual financial statements and auditor's report of the Issuer for the financial year ended 31 December 2017, which form part of the Issuer's annual accounts for the financial year ended 31 December 2017 and which can be found at pages 130 to 195 (inclusive) and pages 212 to 216, respectively, of such annual accounts (https://www.nokia.com/sites/default/files/files/nokia_ar17_en_web.pdf);
- (c) the unaudited consolidated interim financial statements of the Issuer, which form part of the Issuer's financial report as at and for the three and nine months ended 30 September 2018 and which can be found at pages 18 to 44 (inclusive) of such financial report (https://www.nokia.com/sites/default/files/files/nokia_results_2018_q3.pdf);
- (d) the unaudited consolidated interim financial information of the Issuer, which forms part of the Issuer's financial report as at and for the three and twelve months ended 31 December 2018 and which can be found at pages 20 to 49 (inclusive) of such financial report (https://www.nokia.com/sites/default/files/files/nokia_results_2018_q4.pdf);
- (e) the information under the heading "2019-2020 Cost savings program" in the Issuer's financial report for the three and twelve months ended 31 December 2018, which can be found on pages 8 and 9 of such financial report (https://www.nokia.com/sites/default/files/files/nokia_results_2018_q4.pdf);
- (f) the Terms and Conditions of the Notes which can be found at pages 22 to 42 (inclusive) of the Base Prospectus dated 8 December 2008, prepared by the Issuer in connection with the Programme (http://www.nokia.com/sites/default/files/Nokia_Base_Prospectus_8_December_2008.pdf); and
- (g) the Terms and Conditions of the Notes which can be found at pages 41 to 63 (inclusive) of the Base Prospectus dated 21 February 2017, prepared by the Issuer in connection with the Programme (https://www.nokia.com/sites/default/files/Base_Prospectus_dated_21_February_2017.pdf).

The financial statements referred to in paragraphs (a) and (b) above are prepared on the basis of International Financial Reporting Standards as issued by the International Accounting Standards Board and in conformity with International Financial Reporting Standards as adopted by the European Union. The financial statements referred to in paragraph (c) above were prepared in accordance with International Accounting Standard 34. The same accounting policies and methods of computation are followed in the financial statements referred to in paragraph (c) above as were followed in the financial statements referred to in paragraph (b) above other than as described within the notes to the financial statements and in "*Certain Definitions and Presentation of Financial and Other Information—Changes in Accounting Standards*" above.

In addition to information on our reported IFRS results, we provide certain information on a non-IFRS, or underlying business performance, basis. Non-IFRS results exclude costs related to the Acquisition of Alcatel Lucent and related integration, goodwill impairment charges, intangible asset amortisation and other purchase price fair value adjustments, restructuring and associated charges, and certain other items that may not be indicative of Nokia's underlying business performance. We report our segment operating profit on a non-IFRS basis, therefore non-IFRS exclusions are reported only at the Nokia consolidated level. We believe that our non-IFRS results provide meaningful supplemental information to both management and investors regarding Nokia's underlying business performance by excluding the items that may not be indicative of Nokia's business operating results. These non-IFRS financial measures should not be viewed in isolation or as substitutes to the equivalent IFRS measure(s), but should be used in conjunction with the most directly comparable IFRS measure(s) in the reported results. See "*Forward Looking Statements*", "*Selected Financial Data*" and "*Risk*

Factors" for a more complete discussion of certain of the factors that could affect our future performance and results of operations.

For more information on our non-IFRS measures, see note 2 "Non-IFRS to reported reconciliation (unaudited)" and note 15 "Performance measures (unaudited)" to our unaudited consolidated interim financial statements as at and for the three and nine months ended 30 September 2018 and the unaudited consolidated interim financial information as at and for the three and twelve months ended 31 December 2018, which is incorporated by reference and "*Selected Financial Data*" in this Base Prospectus.

The reported information incorporated by reference in paragraph (d) above is prepared based on Nokia's internal management accounts and, other than as described in the notes to the financial statements therein and in "*Certain Definitions and Presentation of Financial and Other Information—Changes in Accounting Standards*" above, applied consistently with the audited consolidated financial statements for Nokia as at and for the years ended 31 December 2016 and 2017 and the unaudited consolidated interim financial statements as at and for the three and nine months ended 30 September 2018. The financial information has been prepared by and is the responsibility of Nokia's management and has not been reviewed or audited by PricewaterhouseCoopers Oy, Nokia's external auditor. Nokia expects to publish its annual report, which includes the audited annual accounts, for the year ended 31 December 2018 on or about the twelfth week of 2019 and Nokia's actual results, when assessed and published, could vary from the information set forth below. See also "*Forward-Looking Statements*" and "*Risk Factors*".

The information incorporated by reference in paragraph (d) above is based solely on preliminary results and estimates and is not intended to be a comprehensive statement of our financial or operational results for the three and twelve month period ended 31 December 2018. Our preliminary results in relation to the three and twelve month period ended 31 December 2018 are based on a number of assumptions that are subject to inherent uncertainties and subject to change. While we believe these estimates to be reasonable, the information incorporated by reference in paragraph (d) has not been audited or reviewed in accordance with any generally accepted auditing standards. As such, you should not place undue reliance on it.

The information incorporated by reference in paragraph (e) above is not a profit forecast or a profit estimate and has been prepared based on Nokia's internal management accounts. The information has been prepared by and is the responsibility of Nokia's management and has not been reviewed or audited by PricewaterhouseCoopers Oy, Nokia's external auditor. While we believe these estimates to be reasonable, the information has not been audited or reviewed in accordance with any generally accepted auditing standards. As such, you should not place undue reliance on it. See "*Forward Looking Statements*" and "*Risk Factors*" for a more complete discussion of certain of the factors that could affect our future performance and results of operations.

Any documents themselves incorporated by reference in the documents incorporated by reference in this Base Prospectus shall not form part of this Base Prospectus. Where only certain parts of the documents referred to above are incorporated by reference into this Base Prospectus, those parts of the documents that are not incorporated by reference into this Base Prospectus are either not relevant for investors or are covered elsewhere in this Base Prospectus. Other than information and documents that are deemed to be incorporated by reference herein, the above websites shall not form a part of this Base Prospectus.

Following the publication of this Base Prospectus, a supplement may be prepared by the Issuer and approved by the Central Bank in accordance with Article 16 of the Prospectus Directive. Statements contained in any such supplement (or contained in any document incorporated by reference therein) shall, to the extent applicable (whether expressly, by implication or otherwise), be deemed to modify or supersede statements contained in this Base Prospectus or in a document which is incorporated by reference in this Base Prospectus. Any statement so modified or superseded shall not, except as so modified or superseded, constitute a part of this Base Prospectus.

Copies of documents incorporated by reference in this Base Prospectus can be obtained from the registered office or website of the Issuer and from the specified office of the Fiscal Agent for the time being in London.

The Issuer will, in the event of any significant new factor, material mistake or inaccuracy relating to information included in this Base Prospectus which is capable of affecting the assessment of any Notes, prepare a supplement to this Base Prospectus or publish a new Base Prospectus for use in connection with any subsequent issue of Notes.

FORMS OF THE NOTES

Each Tranche of Notes in bearer form ("**Bearer Notes**") will initially be in the form of either a temporary global note in bearer form (the "**Temporary Global Note**"), without interest coupons, or a permanent global note in bearer form (the "**Permanent Global Note**"), without interest coupons, in each case as specified in the relevant Final Terms. Each Temporary Global Note or, as the case may be, Permanent Global Note (each a "**Global Note**") which is not intended to be issued in new global note ("**NGN**") form, as specified in the relevant Final Terms, will be deposited on or around the issue date of the relevant Tranche of the Notes with a depositary or a common depositary for Euroclear Bank SA/NV ("**Euroclear**") and/or Clearstream Banking S.A., Luxembourg ("**Clearstream, Luxembourg**") and/or any other relevant clearing system and each Global Note which is intended to be issued in NGN form, as specified in the relevant Final Terms, will be deposited on or around the issue date of the relevant Tranche of the Notes with a common safekeeper for Euroclear and/or Clearstream, Luxembourg.

On 13 June 2006 the European Central Bank (the "**ECB**") announced that Notes in NGN form are in compliance with the "Standards for the use of EU securities settlement systems in ESCB credit operations" of the central banking system for the euro (the "**Eurosystem**"), provided that certain other criteria are fulfilled. At the same time the ECB also announced that arrangements for Notes in NGN form will be offered by Euroclear and Clearstream, Luxembourg as at 30 June 2006 and that debt securities in global bearer form issued through Euroclear and Clearstream, Luxembourg after 31 December 2006 will only be eligible as collateral for Eurosystem operations if the NGN form is used.

In the case of each Tranche of Bearer Notes, the relevant Final Terms will also specify whether United States Treasury Regulation §1.163-5(c)(2)(i)(C) (the "**TEFRA C Rules**") or United States Treasury Regulation §1.163-5(c)(2)(i)(D) (the "**TEFRA D Rules**") are applicable in relation to the Notes or, if the Notes do not have a maturity of more than 365 days, that neither the TEFRA C Rules nor the TEFRA D Rules are applicable.

Temporary Global Note exchangeable for Permanent Global Note

If the relevant Final Terms specifies the form of Notes as being "Temporary Global Note exchangeable for a Permanent Global Note", then the Notes will initially be in the form of a Temporary Global Note which will be exchangeable, in whole or in part, for interests in a Permanent Global Note, without interest coupons, not earlier than 40 days after the issue date of the relevant Tranche of the Notes upon certification as to non-U.S. beneficial ownership. No payments will be made under the Temporary Global Note unless exchange for interests in the Permanent Global Note is improperly withheld or refused. In addition, interest payments in respect of the Notes cannot be collected without such certification of non-U.S. beneficial ownership.

Whenever any interest in the Temporary Global Note is to be exchanged for an interest in a Permanent Global Note, the Issuer shall procure (in the case of first exchange) the prompt delivery (free of charge to the bearer) of such Permanent Global Note to the bearer of the Temporary Global Note or (in the case of any subsequent exchange) an increase in the principal amount of the Permanent Global Note in accordance with its terms against:

- (i) presentation and (in the case of final exchange) surrender of the Temporary Global Note to or to the order of the Fiscal Agent; and
- (ii) receipt by the Fiscal Agent of a certificate or certificates of non-U.S. beneficial ownership,

within seven days of the bearer requesting such exchange.

The principal amount of the Permanent Global Note shall be equal to the aggregate of the principal amounts specified in the certificates of non-U.S. beneficial ownership; *provided, however*, that in no circumstances shall the principal amount of the Permanent Global Note exceed the initial principal amount of the Temporary Global Note.

The Permanent Global Note will be exchangeable in whole, but not in part, for Notes in definitive form ("**Definitive Notes**"):

- (i) on the expiry of such period of notice as may be specified in the relevant Final Terms; or
- (ii) at any time, if so specified in the relevant Final Terms; or

- (iii) if the relevant Final Terms specifies "in the limited circumstances described in the Permanent Global Note", then if (a) Euroclear or Clearstream, Luxembourg or any other relevant clearing system is closed for business for a continuous period of 14 days (other than by reason of legal holidays) or announces an intention permanently to cease business or (b) any of the circumstances described in Condition 13 (*Events of Default*) occurs.

Whenever the Permanent Global Note is to be exchanged for Definitive Notes, the Issuer shall procure the prompt delivery (free of charge to the bearer) of such Definitive Notes, duly authenticated and with Coupons and Talons attached (if so specified in the relevant Final Terms), in an aggregate principal amount equal to the principal amount of the Permanent Global Note to the bearer of the Permanent Global Note against the surrender of the Permanent Global Note to or to the order of the Fiscal Agent within 30 days of the bearer requesting such exchange.

Temporary Global Note exchangeable for Definitive Notes

If the relevant Final Terms specifies the form of Notes as being "Temporary Global Note exchangeable for Definitive Notes" and also specifies that the TEFRA C Rules are applicable or that neither the TEFRA C Rules or the TEFRA D Rules are applicable, then the Notes will initially be in the form of a Temporary Global Note which will be exchangeable, in whole but not in part, for Definitive Notes not earlier than 40 days after the issue date of the relevant Tranche of the Notes.

If the relevant Final Terms specifies the form of Notes as being "Temporary Global Note exchangeable for Definitive Notes" and also specifies that the TEFRA D Rules are applicable, then the Notes will initially be in the form of a Temporary Global Note which will be exchangeable, in whole or in part, for Definitive Notes not earlier than 40 days after the issue date of the relevant Tranche of the Notes upon certification as to non-U.S. beneficial ownership. Interest payments in respect of the Notes cannot be collected without such certification of non-U.S. beneficial ownership.

Whenever the Temporary Global Note is to be exchanged for Definitive Notes, the Issuer shall procure the prompt delivery (free of charge to the bearer) of such Definitive Notes, duly authenticated and with Coupons and Talons attached (if so specified in the relevant Final Terms), in an aggregate principal amount equal to the principal amount of the Temporary Global Note to the bearer of the Temporary Global Note against the surrender of the Temporary Global Note to or to the order of the Fiscal Agent within 30 days of the bearer requesting such exchange.

Permanent Global Note exchangeable for Definitive Notes

If the relevant Final Terms specifies the form of Notes as being "Permanent Global Note exchangeable for Definitive Notes", then the Notes will initially be in the form of a Permanent Global Note which will be exchangeable in whole, but not in part, for Definitive Notes:

- (i) on the expiry of such period of notice as may be specified in the relevant Final Terms; or
- (ii) at any time, if so specified in the relevant Final Terms; or
- (iii) if the relevant Final Terms specifies "in the limited circumstances described in the Permanent Global Note", then if (a) Euroclear or Clearstream, Luxembourg or any other relevant clearing system is closed for business for a continuous period of 14 days (other than by reason of legal holidays) or announces an intention permanently to cease business or (b) any of the circumstances described in Condition 13 (*Events of Default*) occurs.

Whenever the Permanent Global Note is to be exchanged for Definitive Notes, the Issuer shall procure the prompt delivery (free of charge to the bearer) of such Definitive Notes, duly authenticated and with Coupons and Talons attached (if so specified in the relevant Final Terms), in an aggregate principal amount equal to the principal amount of the Permanent Global Note to the bearer of the Permanent Global Note against the surrender of the Permanent Global Note to or to the order of the Fiscal Agent within 30 days of the bearer requesting such exchange.

Terms and Conditions applicable to the Notes

The terms and conditions applicable to any Definitive Note will be endorsed on that Note and will consist of the terms and conditions set out under "*Terms and Conditions of the Notes*" below and the provisions of the relevant Final Terms.

The terms and conditions applicable to any Note in global form will differ from those terms and conditions which would apply to the Note were it in definitive form to the extent described under "*Summary of Provisions Relating to the Notes while in Global Form*" below.

Legend concerning United States persons

In the case of any Tranche of Bearer Notes having a maturity of more than 365 days, the Bearer Notes in global form, the Notes in definitive form and any Coupons and Talons appertaining thereto will bear a legend to the following effect:

"Any United States person who holds this obligation will be subject to limitations under the United States income tax laws, including the limitations provided in Sections 165(j) and 1287(a) of the Internal Revenue Code".

Registered Notes

Each Tranche of Registered Notes will be in the form of either individual Note Certificates in registered form ("**Individual Note Certificates**") or a global Note in registered form (a "**Global Registered Note**"), in each case as specified in the relevant Final Terms. Each Global Registered Note which is not intended to be held under the New Safekeeping Structure, as specified in the relevant Final Terms, will be deposited on or around the relevant issue date with a depository or a common depository for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system and registered in the name of a nominee for such depository and will be exchangeable for Individual Note Certificates in accordance with its terms. Each Global Registered Note which is intended to be held under the New Safekeeping Structure, as specified in the relevant Final Terms, will, on or about the relevant issue date, be registered in the name of a common safekeeper (or its nominee) for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system (which is authorised to hold such Notes as eligible collateral for Eurosystem monetary policy and intra-day credit operations) and be deposited with a nominee for such clearing system and will be exchangeable for Individual Note Certificates in accordance with its terms.

If the relevant Final Terms specifies the form of Notes as being "Individual Note Certificates", then the Notes will at all times be in the form of Individual Note Certificates issued to each Noteholder in respect of their respective holdings.

If the relevant Final Terms specifies the form of Notes as being "Global Registered Note exchangeable for Individual Note Certificates", then the Notes will initially be in the form of a Global Registered Note which will be exchangeable in whole, but not in part, for Individual Note Certificates:

- (i) on the expiry of such period of notice as may be specified in the relevant Final Terms; or
- (ii) at any time, if so specified in the relevant Final Terms; or
- (iii) if the relevant Final Terms specifies "in the limited circumstances described in the Global Registered Note", then if (a) Euroclear or Clearstream, Luxembourg or any other relevant clearing system is closed for business for a continuous period of 14 days (other than by reason of legal holidays) or announces an intention permanently to cease business or (b) any of the circumstances described in Condition 13 (*Events of Default*) occurs.

Whenever the Global Registered Note is to be exchanged for Individual Note Certificates, the Issuer shall procure that Individual Note Certificates will be issued in an aggregate principal amount equal to the principal amount of the Global Registered Note within five business days of the delivery, by or on behalf of the registered holder of the Global Registered Note to the Registrar of such information as is required to complete and deliver such Individual Note Certificates (including, without limitation, the names and addresses of the persons in whose names the Individual Note Certificates are to be registered and the principal amount of each such person's holding) against the surrender of the Global Registered Note at the specified office of the Registrar. Such exchange will be effected in accordance with the provisions of the Agency Agreement and the regulations

concerning the transfer and registration of Notes scheduled thereto and, in particular, shall be effected without charge to any holder, but against such indemnity as the Registrar may require in respect of any tax or other duty of whatsoever nature which may be levied or imposed in connection with such exchange.

Terms and Conditions applicable to the Notes

The terms and conditions applicable to any Individual Note Certificate will be endorsed on that Individual Note Certificate and will consist of the terms and conditions set out under "*Terms and Conditions of the Notes*" below and the provisions of the relevant Final Terms relating to the relevant Notes.

The terms and conditions applicable to any Global Registered Note will differ from those terms and conditions which would apply to the Note were it in definitive form to the extent described under "*Summary of Provisions Relating to the Notes while in Global Form*" below.

TERMS AND CONDITIONS OF THE NOTES

The following is the text of the terms and conditions which, as completed by the relevant Final Terms, will be endorsed on each Note in definitive form issued under the Programme. The terms and conditions applicable to any Note in global form will differ from those terms and conditions which would apply to the Note were it in definitive form to the extent described under "Summary of Provisions Relating to the Notes while in Global Form" below.

1. Introduction

- (a) *Programme*: Nokia Corporation (the "**Issuer**") has established a Euro Medium Term Note Programme (the "**Programme**") for the issuance of up to EUR 5,000,000,000 in aggregate principal amount of notes (the "**Notes**").
- (b) *Final Terms*: Notes issued under the Programme are issued in series (each a "**Series**") and each Series may comprise one or more tranches (each a "**Tranche**") of Notes. Each Tranche is the subject of a final terms (each a "**Final Terms**") which supplements these terms and conditions (the "**Conditions**"). The terms and conditions applicable to any particular Tranche of Notes are these Conditions as completed by the relevant Final Terms. In the event of any inconsistency between these Conditions and the relevant Final Terms, the relevant Final Terms shall prevail.
- (c) *Agency Agreement*: The Notes are the subject of an amended and restated issue and paying agency agreement dated 1 March 2019 (as amended and/or supplemented and/or restated from time to time, the "**Agency Agreement**") between the Issuer and Citibank, N.A., London Branch as fiscal agent (the "**Fiscal Agent**", which expression includes any successor fiscal agent appointed from time to time in connection with the Notes), Citigroup Global Markets Europe AG as registrar (the "**Registrar**"), and the paying agent named therein (together with the Fiscal Agent, the "**Paying Agents**", which expression includes any successor or additional paying agents appointed from time to time in connection with the Notes) and the transfer agent named therein (together with the Registrar, the "**Transfer Agents**", which expression includes any successor or additional transfer agents appointed from time to time in connection with the Notes). In these Conditions references to the "**Agents**" are to the Paying Agents and the Transfer Agents and any reference to an "**Agent**" is to any one of them.
- (d) *Deed of Covenant*: The Notes may be issued in bearer form ("**Bearer Notes**"), or in registered form ("**Registered Notes**"). Registered Notes are constituted by a deed of covenant dated 1 March 2019 (as amended and/or supplemented and/or restated from time to time, the "**Deed of Covenant**") entered into by the Issuer.
- (e) *The Notes*: All subsequent references in these Conditions to "**Notes**" are to the Notes which are the subject of the relevant Final Terms. Copies of the relevant Final Terms are available for viewing at the registered office of the Issuer and of the Fiscal Agent and copies may be obtained from those offices save that, if this Note is neither admitted to trading on a regulated market in the European Economic Area nor offered in the European Economic Area in circumstances where a prospectus is required to be published under Directive 2003/71/EC (as amended) the relevant Final Terms will only be obtainable by a Noteholder holding one or more Notes and such Noteholder must produce evidence satisfactory to the Issuer and the relevant Paying Agent as to its holding of such Notes and identity.
- (f) *Summaries*: Certain provisions of these Conditions are summaries of the Agency Agreement and are subject to their detailed provisions. The holders of the Notes (the "**Noteholders**") and the holders of the related interest coupons, if any (the "**Couponholders**" and the "**Coupons**", respectively) are bound by, and are deemed to have notice of, all the provisions of the Agency Agreement applicable to them. Copies of the Agency Agreement are available for inspection by Noteholders during normal business hours at the Specified Offices of each of the Paying Agents, the initial Specified Offices of which are set out below.

2. Interpretation

- (a) *Definitions*: In these Conditions the following expressions have the following meanings:

"**Accrual Yield**" has the meaning given in the relevant Final Terms;

"**Additional Business Centre(s)**" means the city or cities specified as such in the relevant Final Terms;

"**Additional Financial Centre(s)**" means the city or cities specified as such in the relevant Final Terms;

"**Business Day**" means:

- (i) in relation to any sum payable in euro, a TARGET Settlement Day and a day on which commercial banks and foreign exchange markets settle payments generally in each (if any) Additional Business Centre; and
- (ii) in relation to any sum payable in a currency other than euro, a day on which commercial banks and foreign exchange markets settle payments generally in London, in the Principal Financial Centre of the relevant currency and in each (if any) Additional Business Centre;

"**Business Day Convention**", in relation to any particular date, has the meaning given in the relevant Final Terms and, if so specified in the relevant Final Terms, may have different meanings in relation to different dates and, in this context, the following expressions shall have the following meanings:

- (i) "**Following Business Day Convention**" means that the relevant date shall be postponed to the first following day that is a Business Day;
- (ii) "**Modified Following Business Day Convention**" or "**Modified Business Day Convention**" means that the relevant date shall be postponed to the first following day that is a Business Day unless that day falls in the next calendar month in which case that date will be the first preceding day that is a Business Day;
- (iii) "**Preceding Business Day Convention**" means that the relevant date shall be brought forward to the first preceding day that is a Business Day;
- (iv) "**FRN Convention**", "**Floating Rate Convention**" or "**Eurodollar Convention**" means that each relevant date shall be the date which numerically corresponds to the preceding such date in the calendar month which is the number of months specified in the relevant Final Terms as the Specified Period after the calendar month in which the preceding such date occurred, *provided, however*, that:
 - (A) if there is no such numerically corresponding day in the calendar month in which any such date should occur, then such date will be the last day which is a Business Day in that calendar month;
 - (B) if any such date would otherwise fall on a day which is not a Business Day, then such date will be the first following day which is a Business Day unless that day falls in the next calendar month, in which case it will be the first preceding day which is a Business Day; and
 - (C) if the preceding such date occurred on the last day in a calendar month which was a Business Day, then all subsequent such dates will be the last day which is a Business Day in the calendar month which is the specified number of months after the calendar month in which the preceding such date occurred; and
- (v) "**No Adjustment**" means that the relevant date shall not be adjusted in accordance with any Business Day Convention;

"**Calculation Agent**" means the Fiscal Agent or such other Person specified in the relevant Final Terms as the party responsible for calculating the Rate(s) of Interest and Interest Amount(s) and/or such other amount(s) as may be specified in the relevant Final Terms;

"**Calculation Amount**" has the meaning given in the relevant Final Terms;

"**Calculation Period**" means, in respect of any calculation of interest, the period from (and including) the most recent Interest Payment Date (or, if none, the Interest Commencement Date) to (but excluding) the relevant payment date;

"**Coupon Sheet**" means, in respect of a Note, a coupon sheet relating to the Note;

"Day Count Fraction" means, in respect of the calculation of an amount for any Calculation Period, such day count fraction as may be specified in these Conditions or the relevant Final Terms and:

- (i) if **"Actual/Actual (ICMA)"** is so specified, means:
 - (a) where the Calculation Period is equal to or shorter than the Regular Period during which it falls, the actual number of days in the Calculation Period divided by the product of (1) the actual number of days in such Regular Period and (2) the number of Regular Periods in any year; and
 - (b) where the Calculation Period is longer than one Regular Period, the sum of:
 - (A) the actual number of days in such Calculation Period falling in the Regular Period in which it begins divided by the product of (1) the actual number of days in such Regular Period and (2) the number of Regular Periods in any year; and
 - (B) the actual number of days in such Calculation Period falling in the next Regular Period divided by the product of (a) the actual number of days in such Regular Period and (2) the number of Regular Periods in any year;
- (ii) if **"Actual/365"** or **"Actual/Actual (ISDA)"** is so specified, means the actual number of days in the Calculation Period divided by 365 (or, if any portion of the Calculation Period falls in a leap year, the sum of (A) the actual number of days in that portion of the Calculation Period falling in a leap year divided by 366 and (B) the actual number of days in that portion of the Calculation Period falling in a non-leap year divided by 365);
- (iii) if **"Actual/365 (Fixed)"** is so specified, means the actual number of days in the Calculation Period divided by 365;
- (iv) if **"Actual/360"** is so specified, means the actual number of days in the Calculation Period divided by 360;
- (v) if **"30/360"** is so specified, means (A) in respect of the 2000 ISDA Definitions, the number of days in the Calculation Period divided by 360 (the number of days to be calculated on the basis of a year of 360 days with 12 30-day months (unless (i) the last day of the Calculation Period is the 31st day of a month but the first day of the Calculation Period is a day other than the 30th or 31st day of a month, in which case the month that includes that last day shall not be considered to be shortened to a 30-day month, or (ii) the last day of the Calculation Period is the last day of the month of February, in which case the month of February shall not be considered to be lengthened to a 30-day month)); and (B) in respect of the 2006 ISDA Definitions, the number of days in the Calculation Period divided by 360 calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

"Y₁" is the year, expressed as a number, in which the first day of the Calculation Period falls;

"Y₂" is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"M₁" is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

"M₂" is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"D₁" is the first calendar day, expressed as a number, of the Calculation Period, unless such number would be 31, in which case D₁ will be 30; and

"D₂" is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless such number would be 31 and D₁ is greater than 29, in which case D₂ will be 30;

- (vi) if "**30E/360**" or "**Eurobond Basis**" is so specified means (A) in respect of the 2000 ISDA Definitions, the number of days in the Calculation Period divided by 360 (the number of days to be calculated on the basis of a year of 360 days with 12 30-day months, without regard to the date of the first day or last day of the Calculation Period unless, in the case of the final Calculation Period, the date of final maturity is the last day of the month of February, in which case the month of February shall not be considered to be lengthened to a 30-day month); and (B) in respect of the 2006 ISDA Definitions, the number of days in the Calculation Period divided by 360 calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

"Y₁" is the year, expressed as a number, in which the first day of the Calculation Period falls;

"Y₂" is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"M₁" is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

"M₂" is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"D₁" is the first calendar day, expressed as a number, of the Calculation Period, unless such number would be 31, in which case D₁ will be 30; and

"D₂" is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless such number would be 31, in which case D₂ will be 30; and

- (vii) if "**30E/360 (ISDA)**" is specified in the relevant Final Terms, means the number of days in the Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

"Y₁" is the year, expressed as a number, in which the first day of the Calculation Period falls;

"Y₂" is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"M₁" is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

"M₂" is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"D₁" is the first calendar day, expressed as a number, of the Calculation Period, unless (i) that day is the last day of February or (ii) such number would be 31, in which case D₁ will be 30; and

"D₂" is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless (i) that day is the last day of February but not the Maturity Date or (ii) such number would be 31 and in which case D₂ will be 30;

"Designated Maturity" means, in relation to Screen Rate Determination, the period of time designated in the Reference Rate;

"Early Redemption Amount (Tax)" means, in respect of any Note, its principal amount or such other amount as may be specified in the relevant Final Terms;

"Early Termination Amount" means, in respect of any Note, its principal amount or such other amount as may be specified in, or determined in accordance with, these Conditions or the relevant Final Terms;

"EURIBOR" means the Euro inter-bank offered rate;

"Extraordinary Resolution" has the meaning given in the Agency Agreement;

"Final Redemption Amount" means, in respect of any Note, its principal amount or such other amount as may be specified in, or determined in accordance with, the relevant Final Terms;

"First Interest Payment Date" means the date specified in the relevant Final Terms;

"Fixed Coupon Amount" has the meaning given in the relevant Final Terms;

"Group" means the Issuer and its Subsidiaries from time to time;

"IFRS" means the international financial reporting standards formulated by the International Accounting Standards Board;

"Indebtedness" means (without double counting) any indebtedness in respect of:

- (i) moneys borrowed or raised;
- (ii) any debenture, bond, note, loan stock, commercial paper or similar instrument;
- (iii) any acceptance credit, bill discounting, note purchase or documentary credit facility;
- (iv) any payment obligations under any leases which would in accordance with IFRS be treated as finance or capital leases;
- (v) any receivables purchase, factoring or discounting arrangement under which there is recourse in whole or in part to any member of the Group;
- (vi) any other transaction having the commercial effect of a borrowing and which would, in accordance with IFRS, be treated as a borrowing; or
- (vii) any guarantees or other legally binding assurance against financial loss in respect of the indebtedness of any person arising under an obligation falling within paragraphs (i) to (vi) above;

"Interest Amount" means, in relation to a Note and an Interest Period, the amount of interest payable in respect of that Note for that Interest Period;

"Interest Commencement Date" means the Issue Date of the Notes or such other date as may be specified as the Interest Commencement Date in the relevant Final Terms;

"Interest Determination Date" has the meaning given in the relevant Final Terms;

"Interest Payment Date" means the First Interest Payment Date and any other date or dates specified as such in, or determined in accordance with the provisions of, the relevant Final Terms and, if a Business Day Convention is specified in the relevant Final Terms:

- (i) as the same may be adjusted in accordance with the relevant Business Day Convention; or
- (ii) if the Business Day Convention is the FRN Convention, Floating Rate Convention or Eurodollar Convention and an interval of a number of calendar months is specified in the relevant Final Terms as being the Specified Period, each of such dates as may occur in accordance with the FRN Convention, Floating Rate Convention or Eurodollar Convention at such Specified Period of

calendar months following the Interest Commencement Date (in the case of the first Interest Payment Date) or the previous Interest Payment Date (in any other case);

"Interest Period" means each period beginning on (and including) the Interest Commencement Date or any Interest Payment Date and ending on (but excluding) the next Interest Payment Date;

"Intra-Group Debt" means any indebtedness owed by a member of the Group to another member of the Group;

"ISDA Definitions" means the 2000 ISDA Definitions (as amended and updated as at the date of issue of the first Tranche of the Notes of the relevant Series (as specified in the relevant Final Terms) as published by the International Swaps and Derivatives Association, Inc.) or, if so specified in the relevant Final Terms, the 2006 ISDA Definitions (as amended and updated as at the date of issue of the first Tranche of the Notes of the relevant Series (as specified in the relevant Final Terms) as published by the International Swaps and Derivatives Association, Inc.);

"Issue Date" has the meaning given in the relevant Final Terms;

"LIBOR" means the London inter-bank offered rate;

"Margin" has the meaning given in the relevant Final Terms;

"Maturity Date" has the meaning given in the relevant Final Terms;

"Maximum Redemption Amount" has the meaning given in the relevant Final Terms;

"Meeting" means a meeting of Noteholders (whether originally convened or resumed following an adjournment);

"Minimum Redemption Amount" has the meaning given in the relevant Final Terms;

"NIBOR" means the Norwegian inter-bank offered rate;

"Non-recourse Securitisation" means any securitisation, asset backed financing or similar transaction under which a Securitisation Entity on commercially reasonable terms:

- (i) acquires receivables or other assets for principally cash consideration or uses existing receivables or other assets;
- (ii) issues any notes, bonds, commercial paper, loans or other securities (whether or not listed on a recognised stock exchange) to fund the purchase of or otherwise backed by those receivables or other assets and/or any shares or other interests referred to in paragraph (ii) of the definition of "Permitted Security Interest" and the payment obligations in respect of such notes, bonds, commercial paper, loans or other securities:
 - (a) are secured directly on those receivables or other assets; and
 - (b) are not guaranteed by any member of the Group (other than as a result of any Permitted Security Interest);

"Non-recourse Securitisation Debt" means any Indebtedness incurred by a Securitisation Entity pursuant to a securitisation of receivables or other assets where the recourse in respect of that Indebtedness to any member of the Group (other than the Securitisation Entity) is limited to:

- (i) those receivables and/or other assets; and
- (ii) if those receivables or other assets comprise all or substantially all of the business of such Securitisation Entity, the shares or other interests of any member(s) of the Group in such Securitisation Entity;

"Noteholder", in the case of Bearer Notes, has the meaning given in Condition 3(b) (*Form, Denomination and Title — Title to Bearer Notes*) and, in the case of Registered Notes, has the meaning given in Condition 3(d) (*Form, Denomination and Title — Title to Registered Notes*);

"Optional Redemption Amount (Call)" means, in respect of any Note, its principal amount or such other amount as may be specified in, or determined in accordance with, the relevant Final Terms;

"Optional Redemption Amount (Put)" means, in respect of any Note, its principal amount or such other amount as may be specified in, or determined in accordance with, the relevant Final Terms;

"Optional Redemption Date (Call)" has the meaning given in the relevant Final Terms;

"Optional Redemption Date (Put)" has the meaning given in the relevant Final Terms;

"Participating Member State" means a Member State of the European Communities which adopts the euro as its lawful currency in accordance with the Treaty;

"Payment Business Day" means:

- (i) if the currency of payment is euro, any day which is:
 - (A) a day on which banks in the relevant place of presentation are open for presentation and payment of bearer debt securities and for dealings in foreign currencies; and
 - (B) in the case of payment by transfer to an account, a TARGET Settlement Day and a day on which dealings in foreign currencies may be carried on in each (if any) Additional Financial Centre; or
- (ii) if the currency of payment is not euro, any day which is:
 - (A) a day on which banks in the relevant place of presentation are open for presentation and payment of bearer debt securities and for dealings in foreign currencies; and
 - (B) in the case of payment by transfer to an account, a day on which dealings in foreign currencies may be carried on in the Principal Financial Centre of the currency of payment and in each (if any) Additional Financial Centre;

"Permitted Security Interest" means any Security Interest over:

- (i) the assets or revenues of a Securitisation Entity which are subject to a Non-recourse Securitisation as security for Non-recourse Securitisation Debt raised by such Securitisation Entity in respect of such assets and revenues; and/or
- (ii) the shares or other interests owned by any member of the Group in any Securitisation Entity as security for Non-recourse Securitisation Debt raised by such Securitisation Entity provided that the assets or revenues which are the subject of the relevant Non-recourse Securitisation comprise all or substantially all of the business of such Securitisation Entity;

"Person" means any individual, company, corporation, firm, partnership, joint venture, association, organisation, state or agency of a state or other entity, whether or not having separate legal personality;

"Principal Financial Centre" means, in relation to any currency, the principal financial centre for that currency *provided, however, that:*

- (i) in relation to euro, it means the principal financial centre of such Member State of the European Communities as is selected (in the case of a payment) by the payee or (in the case of a calculation) by the Calculation Agent; and
- (ii) in relation to Australian dollars, it means either Sydney or Melbourne and, in relation to New Zealand dollars, it means either Wellington or Auckland; in each case as is selected (in the case of a payment) by the payee or (in the case of a calculation) by the Calculation Agent;

"Principal Subsidiary" means a Subsidiary of the Issuer whose net sales (consolidated in the case of a Subsidiary which itself has Subsidiaries) or whose total assets (consolidated in the case of a Subsidiary which itself has Subsidiaries) represent not less than ten per cent. of the consolidated net sales of the Group or the consolidated total assets of the Group, as the case may be, in each case:

- (i) as shown in the latest published audited or unaudited consolidated financial statements of the Issuer and its Subsidiaries; and
- (ii) adjusted to take account of any significant changes in circumstances resulting from any transfers between members of the Group or any acquisitions made by members of the Group since the date as at which such financial statements were prepared;

"Put Option Notice" means a notice which must be delivered to a Paying Agent by any Noteholder wanting to exercise a right to redeem a Note at the option of the Noteholder;

"Put Option Receipt" means a receipt issued by a Paying Agent to a depositing Noteholder upon deposit of a Note with such Paying Agent by any Noteholder wanting to exercise a right to redeem a Note at the option of the Noteholder;

"Rate of Interest" means the rate or rates (expressed as a percentage per annum) of interest payable in respect of the Notes specified in the relevant Final Terms or calculated or determined in accordance with the provisions of these Conditions and/or the relevant Final Terms;

"Redemption Amount" means, as appropriate, the Final Redemption Amount, the Early Redemption Amount (Tax), the Optional Redemption Amount (Call), the Optional Redemption Amount (Put), the Make-Whole Redemption Amount, the Early Termination Amount or such other amount in the nature of a redemption amount as may be specified in the relevant Final Terms;

"Reference Banks" has the meaning given in the relevant Final Terms or, if none, four major banks selected by the Issuer in the market that is most closely connected with the Reference Rate;

"Reference Price" has the meaning given in the relevant Final Terms;

"Reference Rate" means LIBOR, EURIBOR, NIBOR or STIBOR, as specified in the relevant Final Terms;

"Regular Period" means:

- (i) in the case of Notes where interest is scheduled to be paid only by means of regular payments, each period from and including the Interest Commencement Date to but excluding the first Interest Payment Date and each successive period from and including one Interest Payment Date to but excluding the next Interest Payment Date;
- (ii) in the case of Notes where, apart from the first Interest Period, interest is scheduled to be paid only by means of regular payments, each period from and including a Regular Date falling in any year to but excluding the next Regular Date, where **"Regular Date"** means the day and month (but not the year) on which any Interest Payment Date falls; and
- (iii) in the case of Notes where, apart from one Interest Period other than the first Interest Period, interest is scheduled to be paid only by means of regular payments, each period from and including a Regular Date falling in any year to but excluding the next Regular Date, where **"Regular Date"** means the day and month (but not the year) on which any Interest Payment Date falls other than the Interest Payment Date falling at the end of the irregular Interest Period;

"Relevant Date" means, in relation to any payment, whichever is the later of (i) the date on which the payment in question first becomes due and (ii) if the full amount payable has not been received in the Principal Financial Centre of the currency of payment by the Fiscal Agent on or prior to such due date, the date on which (the full amount having been so received) notice to that effect has been given to the Noteholders;

"Relevant Financial Centre" has the meaning given in the relevant Final Terms;

"Relevant Indebtedness" means any Indebtedness (other than Non-Recourse Securitisation Debt) which is in the form of or represented by any bond, note, debenture, debenture stock, loan stock, certificate or other instrument which is listed, quoted or traded on any stock exchange or in any securities market (including, without limitation, any over-the-counter market) or held in a securities clearance system;

"Relevant Screen Page" means the page, section or other part of a particular information service (including, without limitation, Reuters) specified as the Relevant Screen Page in the relevant Final Terms, or such other page, section or other part as may replace it on that information service or such other information service, in each case, as may be nominated by the Person providing or sponsoring the information appearing there for the purpose of displaying rates or prices comparable to the Reference Rate;

"Relevant Time" has the meaning given in the relevant Final Terms;

"Reserved Matter" means any proposal:

- (i) to change any date fixed for payment of principal or interest in respect of the Notes, to reduce the amount of principal or interest payable on any date in respect of the Notes or to alter the method of calculating the amount of any payment in respect of the Notes on redemption or maturity or the date for any such payment;
- (ii) to effect the exchange or substitution of the Notes for, or the conversion of the Notes into, shares, bonds or other obligations or securities of the Issuer or any other person or body corporate formed or to be formed;
- (iii) to change the currency in which amounts due in respect of the Notes are payable;
- (iv) to change the quorum required at any Meeting or the majority required to pass an Extraordinary Resolution; or
- (v) to amend this definition;

"Securitisation Entity" means any special purpose vehicle created for the sole purpose of carrying out, or otherwise used for the purpose of carrying out, a Non-recourse Securitisation or any other member of the Group which is effecting Non-recourse Securitisations;

"Security Interest" means any mortgage, charge, assignment by way of security, pledge, lien or other security interest securing any obligation of any person or any other agreement or arrangement having a similar effect;

"Specified Currency" has the meaning given in the relevant Final Terms;

"Specified Denomination(s)" has the meaning given in the relevant Final Terms;

"Specified Office" has the meaning given in the Agency Agreement;

"Specified Period" has the meaning given in the relevant Final Terms;

"STIBOR" means the Stockholm inter-bank offered rate;

"Subsidiary" means, in relation to any Person (the **"first Person"**) at any particular time, any other Person (the **"second Person"**):

- (i) which is controlled, directly or indirectly, by the first Person;
- (ii) more than half the issued share capital of which is beneficially owned, directly or indirectly, by the first Person; or
- (iii) which is a subsidiary of another subsidiary of the first Person;

and, for these purposes, the second Person shall be treated as being controlled by the first Person if the first Person is able to direct its affairs and/or to control the composition of its board of directors or equivalent body;

"Talon" means a talon for further Coupons;

"TARGET Settlement Day" means any day on which TARGET2 is open for the settlement of payments in euro;

"**TARGET2**" means the Trans-European Automated Real-Time Gross Settlement Express Transfer payment system which utilises a single shared platform and which was launched on 19 November 2007;

"**Treaty**" means the Treaty establishing the European Communities, as amended; and

"**Zero Coupon Note**" means a Note specified as such in the relevant Final Terms.

(b) *Interpretation:* In these Conditions:

- (i) if the Notes are Zero Coupon Notes, references to Coupons and Couponholders are not applicable;
- (ii) if Talons are specified in the relevant Final Terms as being attached to the Notes at the time of issue, references to Coupons shall be deemed to include references to Talons;
- (iii) if Talons are not specified in the relevant Final Terms as being attached to the Notes at the time of issue, references to Talons are not applicable;
- (iv) any reference to principal shall be deemed to include the Redemption Amount, any additional amounts in respect of principal which may be payable under Condition 12 (*Taxation*), any premium payable in respect of a Note and any other amount in the nature of principal payable pursuant to these Conditions;
- (v) any reference to interest shall be deemed to include any additional amounts in respect of interest which may be payable under Condition 12 (*Taxation*) and any other amount in the nature of interest payable pursuant to these Conditions;
- (vi) references to Notes being "outstanding" shall be construed in accordance with the Agency Agreement;
- (vii) if an expression is stated in Condition 2(a) (*Interpretation — Definitions*) to have the meaning given in the relevant Final Terms, but the relevant Final Terms gives no such meaning or specifies that such expression is "not applicable" then such expression is not applicable to the Notes; and
- (viii) any reference to the Agency Agreement shall be construed as a reference to the Agency Agreement as amended and/or supplemented up to and including the Issue Date of the Notes.

3. **Form, Denomination and Title**

- (a) *Bearer Notes:* Bearer Notes are in the Specified Denomination(s) with Coupons and, if specified in the relevant Final Terms, Talons attached at the time of issue. In the case of a Series of Bearer Notes with more than one Specified Denomination, Bearer Notes of one Specified Denomination will not be exchangeable for Bearer Notes of another Specified Denomination.
- (b) *Title to Bearer Notes:* Title to Bearer Notes and the Coupons will pass by delivery. In the case of Bearer Notes, "**Holder**" means the holder of such Bearer Note and "**Noteholder**" and "**Couponholder**" shall be construed accordingly.
- (c) *Registered Notes:* Registered Notes are in the Specified Denomination(s), which may include a minimum denomination specified in the relevant Final Terms and higher integral multiples of a smaller amount specified in the relevant Final Terms.
- (d) *Title to Registered Notes:* The Registrar will maintain the register in accordance with the provisions of the Agency Agreement. A certificate (each a "**Note Certificate**") will be issued to each Holder of Registered Notes in respect of its registered holding. Each Note Certificate will be numbered serially with an identifying number which will be recorded in the Register. In the case of Registered Notes, "**Holder**" means the person in whose name such Registered Note is for the time being registered in the Register (or, in the case of a joint holding, the first named thereof) and "**Noteholder**" shall be construed accordingly.
- (e) *Ownership:* The Holder of any Note or Coupon shall (except as otherwise required by law) be treated as its absolute owner for all purposes (whether or not it is overdue and regardless of any notice of ownership, trust or any other interest therein, any writing thereon or, in the case of Registered Notes, on the Note Certificate relating thereto (other than the endorsed form of transfer) or any notice of any

previous loss or theft thereof) and no Person shall be liable for so treating such Holder. No person shall have any right to enforce any term or condition of any Note under the Contracts (Rights of Third Parties) Act 1999.

- (f) *Transfers of Registered Notes:* Subject to Conditions 3(i) (*Form, Denomination and Title — Closed periods*) and 3(j) (*Form, Denomination and Title — Regulations concerning transfers and registration*) below, a Registered Note may be transferred upon surrender of the relevant Note Certificate, with the endorsed form of transfer duly completed, at the Specified Office of the Registrar or any Transfer Agent, together with such evidence as the Registrar or (as the case may be) such Transfer Agent may reasonably require to prove the title of the transferor and the authority of the individuals who have executed the form of transfer; *provided, however, that* a Registered Note may not be transferred unless the principal amount of Registered Notes transferred and (where not all of the Registered Notes held by a Holder are being transferred) the principal amount of the balance of Registered Notes not transferred are Specified Denominations. Where not all the Registered Notes represented by the surrendered Note Certificate are the subject of the transfer, a new Note Certificate in respect of the balance of the Registered Notes will be issued to the transferor.
- (g) *Registration and delivery of Note Certificates:* Within five business days of the surrender of a Note Certificate in accordance with Condition 3(f) (*Form, Denomination and Title — Transfers of Registered Notes*), the Registrar will register the transfer in question and deliver a new Note Certificate of a like principal amount to the Registered Notes transferred to each relevant Holder at its Specified Office or (as the case may be) the Specified Office of any Transfer Agent or (at the request and risk of any such relevant Holder) by uninsured first class mail (airmail if overseas) to the address specified for the purpose by such relevant Holder. In this Condition 3(g), "**business day**" means a day on which commercial banks are open for general business (including dealings in foreign currencies) in the city where the Registrar or (as the case may be) the relevant Transfer Agent has its Specified Office.
- (h) *No charge:* The transfer of a Registered Note will be effected without charge by or on behalf of the Issuer or the Registrar or any Transfer Agent but against such indemnity as the Registrar or (as the case may be) such Transfer Agent may require in respect of any tax or other duty of whatsoever nature which may be levied or imposed in connection with such transfer.
- (i) *Closed periods:* Noteholders may not require transfers to be registered during the period of 15 days ending on the due date for any payment of principal or interest in respect of the Registered Notes.
- (j) *Regulations concerning transfers and registration:* All transfers of Registered Notes and entries on the Register are subject to the detailed regulations concerning the transfer of Registered Notes scheduled to the Agency Agreement. The regulations may be changed by the Issuer with the prior written approval of the Registrar. A copy of the current regulations will be mailed (free of charge) by the Registrar to any Noteholder who requests in writing a copy of such regulations.

4. **Status of the Notes**

The Notes constitute direct, general and unconditional obligations of the Issuer which will at all times rank *pari passu* among themselves and at least *pari passu* with all other present and future unsecured obligations of the Issuer, save for such obligations as may be preferred by provisions of law that are both mandatory and of general application.

5. **Negative Pledge**

So long as any Note remains outstanding, the Issuer shall not, and the Issuer shall procure that none of its Principal Subsidiaries will, create or permit to subsist any Security Interest upon the whole or any part of its present or future undertaking, assets or revenues (including uncalled capital) to secure any Relevant Indebtedness without (a) at the same time or prior thereto securing the Notes equally and rateably therewith or (b) providing such other security for the Notes as may be approved by an Extraordinary Resolution of Noteholders.

6. **Fixed Rate Note Provisions**

- (a) *Application:* This Condition 6 is applicable to the Notes only if the Fixed Rate Note Provisions are specified in the relevant Final Terms as being applicable.

- (b) *Accrual of interest:* The Notes bear interest from the Interest Commencement Date at the Rate of Interest payable in arrear on each Interest Payment Date, subject as provided in Condition 10 (*Payments — Bearer Notes*) or Condition 11 (*Payments — Registered Notes*). Each Note will cease to bear interest from the due date for final redemption unless, upon due presentation, payment of the Redemption Amount is improperly withheld or refused, in which case it will continue to bear interest in accordance with this Condition 6 (as well after as before judgment) until whichever is the earlier of (i) the day on which all sums due in respect of such Note up to that day are received by or on behalf of the relevant Noteholder and (ii) the day which is seven days after the Fiscal Agent has notified the Noteholders that it has received all sums due in respect of the Notes up to such seventh day (except to the extent that there is any subsequent default in payment).
- (c) *Fixed Coupon Amount:* The amount of interest payable in respect of each Note for any Interest Period shall be the relevant Fixed Coupon Amount and, if the Notes are in more than one Specified Denomination, shall be the relevant Fixed Coupon Amount in respect of the relevant Specified Denomination.
- (d) *Calculation of interest amount:* The amount of interest payable in respect of each Note for any period for which a Fixed Coupon Amount is not specified shall be calculated by applying the Rate of Interest to the Calculation Amount, multiplying the product by the relevant Day Count Fraction, rounding the resulting figure to the nearest sub-unit of the Specified Currency (half a sub-unit being rounded upwards) and multiplying such rounded figure by a fraction equal to the Specified Denomination of such Note divided by the Calculation Amount. For this purpose a "sub-unit" means, in the case of any currency other than euro, the lowest amount of such currency that is available as legal tender in the country of such currency and, in the case of euro, means one cent.

7. **Floating Rate Note Provisions**

- (a) *Application:* This Condition 7 is applicable to the Notes only if the Floating Rate Note Provisions are specified in the relevant Final Terms as being applicable.
- (b) *Accrual of interest:* The Notes bear interest from the Interest Commencement Date at the Rate of Interest payable in arrear on each Interest Payment Date, subject as provided in Condition 10 (*Payments — Bearer Notes*) or Condition 11 (*Payments — Registered Notes*). Each Note will cease to bear interest from the due date for final redemption unless, upon due presentation, payment of the Redemption Amount is improperly withheld or refused, in which case it will continue to bear interest in accordance with this Condition 7(b) (as well after as before judgment) until whichever is the earlier of (i) the day on which all sums due in respect of such Note up to that day are received by or on behalf of the relevant Noteholder and (ii) the day which is five days after the Fiscal Agent has notified the Noteholders that it has received all sums due in respect of the Notes up to such fifth day (except to the extent that there is any subsequent default in payment).
- (c) *Screen Rate Determination:* If Screen Rate Determination is specified in the relevant Final Terms as the manner in which the Rate(s) of Interest is/are to be determined, the Rate of Interest applicable to the Notes for each Interest Period will be determined by the Calculation Agent on the following basis:
 - (i) if the Reference Rate is a composite quotation or customarily supplied by one entity, the Calculation Agent will determine the Reference Rate which appears on the Relevant Screen Page as at the Relevant Time on the relevant Interest Determination Date;
 - (ii) in any other case, the Calculation Agent will determine the arithmetic mean of the Reference Rates which appear on the Relevant Screen Page as at the Relevant Time on the relevant Interest Determination Date;
 - (iii) if, in the case of Condition 7(c)(i), such rate does not appear on that page or, in the case of Condition 7(c)(ii), fewer than two such rates appear on that page or if, in either case, the Relevant Screen Page is unavailable, the Calculation Agent will:
 - (A) request the principal Relevant Financial Centre office of each of the Reference Banks to provide a quotation of the Reference Rate at approximately the Relevant Time on the Interest Determination Date to prime banks in the Relevant Financial Centre interbank

market in an amount that is representative for a single transaction in that market at that time;
and

- (B) determine the arithmetic mean of such quotations; and
- (iv) if fewer than two such quotations are provided as requested, the Calculation Agent will determine the arithmetic mean of the rates (being the nearest to the Reference Rate, as determined by the Calculation Agent) quoted by major banks in the Principal Financial Centre of the Specified Currency, selected by the Issuer, at approximately 11.00 a.m. (local time in the Principal Financial Centre of the Specified Currency) on the first day of the relevant Interest Period for loans in the Specified Currency to leading European banks for a period equal to the relevant Interest Period and in an amount that is representative for a single transaction in that market at that time,

and the Rate of Interest for such Interest Period shall be the sum of the Margin and the rate or (as the case may be) the arithmetic mean so determined; *provided, however, that* if the Calculation Agent is unable to determine a rate or (as the case may be) an arithmetic mean in accordance with the above provisions in relation to any Interest Period, the Rate of Interest applicable to the Notes during such Interest Period will be the sum of the Margin and the rate or (as the case may be) the arithmetic mean last determined in relation to the Notes in respect of a preceding Interest Period.

- (d) *ISDA Determination*: If ISDA Determination is specified in the relevant Final Terms as the manner in which the Rate(s) of Interest is/are to be determined, the Rate of Interest applicable to the Notes for each Interest Period will be the sum of the Margin and the relevant ISDA Rate where "**ISDA Rate**" in relation to any Interest Period means a rate equal to the Floating Rate (as defined in the ISDA Definitions) that would be determined by the Calculation Agent under an interest rate swap transaction if the Calculation Agent were acting as Calculation Agent for that interest rate swap transaction under the terms of an agreement incorporating the ISDA Definitions and under which:
 - (i) the Floating Rate Option (as defined in the ISDA Definitions) is as specified in the relevant Final Terms;
 - (ii) the Designated Maturity (as defined in the ISDA Definitions) is a period specified in the relevant Final Terms; and
 - (iii) the relevant Reset Date (as defined in the ISDA Definitions) is either (A) if the relevant Floating Rate Option is based on the London inter-bank offered rate (LIBOR) for a currency, the first day of that Interest Period or (B) in any other case, as specified in the relevant Final Terms.
- (e) *Linear Interpolation*: If Linear Interpolation is specified as applicable in respect of an Interest Period in the relevant Final Terms, the Rate of Interest for such Interest Period shall be calculated by the Calculation Agent by straight line linear interpolation by reference to two rates based on the relevant Reference Rate (where Screen Rate Determination is specified as applicable in the relevant Final Terms) or the relevant Floating Rate Option (where ISDA Determination is specified as applicable in the relevant Final Terms), one of which shall be determined as if the Designated Maturity were the period of time for which rates are available next shorter than the length of the relevant Interest Period and the other of which shall be determined as if the Designated Maturity were the period of time for which rates are available next longer than the length of the relevant Interest Period provided however that if there is no rate available for a period of time next shorter or, as the case may be, next longer, then the Calculation Agent shall determine such rate at such time and by reference to such sources as it determines appropriate.
- (f) *Maximum or Minimum Rate of Interest*: If any Maximum Rate of Interest or Minimum Rate of Interest is specified in the relevant Final Terms, then the Rate of Interest shall in no event be greater than the maximum or be less than the minimum so specified.
- (g) *Calculation of Interest Amount*: The Calculation Agent will, as soon as practicable after the time at which the Rate of Interest is to be determined in relation to each Interest Period, calculate the Interest Amount payable in respect of each Note for such Interest Period. The Interest Amount will be calculated by applying the Rate of Interest for such Interest Period to the Calculation Amount, multiplying the product by the relevant Day Count Fraction, rounding the resulting figure to the nearest sub-unit of the Specified Currency (half a sub-unit being rounded upwards) and multiplying such rounded figure by a

fraction equal to the Specified Denomination of the relevant Note divided by the Calculation Amount. For this purpose a "sub-unit" means, in the case of any currency other than euro, the lowest amount of such currency that is available as legal tender in the country of such currency and, in the case of euro, means one cent.

- (h) *Calculation of other amounts:* If the relevant Final Terms specifies that any other amount is to be calculated by the Calculation Agent, the Calculation Agent will, as soon as practicable after the time or times at which any such amount is to be determined, calculate the relevant amount. The relevant amount will be calculated by the Calculation Agent in the manner specified in the relevant Final Terms.
- (i) *Publication:* The Calculation Agent will cause each Rate of Interest and Interest Amount determined by it, together with the relevant Interest Payment Date, and any other amount(s) required to be determined by it together with any relevant payment date(s) to be notified to the Paying Agents and each competent authority, stock exchange and/or quotation system (if any) by which the Notes have then been admitted to listing, trading and/or quotation as soon as practicable after such determination but (in the case of each Rate of Interest, Interest Amount and Interest Payment Date) in any event not later than the first day of the relevant Interest Period. Notice thereof shall also promptly be given to the Noteholders. The Calculation Agent will be entitled to recalculate any Interest Amount (on the basis of the foregoing provisions) without notice in the event of an extension or shortening of the relevant Interest Period. If the Calculation Amount is less than the minimum Specified Denomination the Calculation Agent shall publish the Interest Amount in relation to the Calculation Amount and the Interest Amount in respect of a Note having the minimum Specified Denomination.
- (j) *Notifications etc.:* All notifications, opinions, determinations, certificates, calculations, quotations and decisions given, expressed, made or obtained for the purposes of this Condition 7 by the Calculation Agent will (in the absence of manifest error) be binding on the Issuer, the Paying Agents and, in the case of Registered Notes, the Registrar and the Transfer Agents, the Noteholders and the Couponholders and (subject as aforesaid) no liability to any such Person will attach to the Calculation Agent in connection with the exercise or non-exercise by it of its powers, duties and discretions for such purposes.

8. **Zero Coupon Note Provisions**

- (a) *Application:* This Condition 8 is applicable to the Notes only if the Zero Coupon Note Provisions are specified in the relevant Final Terms as being applicable.
- (b) *Late payment on Zero Coupon Notes:* If the Redemption Amount payable in respect of any Zero Coupon Note is improperly withheld or refused, the Redemption Amount shall thereafter be an amount equal to the sum of:
 - (i) the Reference Price; and
 - (ii) the product of the Accrual Yield (compounded annually) being applied to the Reference Price on the basis of the relevant Day Count Fraction from (and including) the Issue Date to (but excluding) whichever is the earlier of (A) the day on which all sums due in respect of such Note up to that day are received by or on behalf of the relevant Noteholder and (B) the day which is five days after the Fiscal Agent has notified the Noteholders that it has received all sums due in respect of the Notes up to such fifth day (except to the extent that there is any subsequent default in payment).

9. **Redemption and Purchase**

- (a) *Scheduled redemption:* Unless previously redeemed, or purchased and cancelled, the Notes will be redeemed at their Final Redemption Amount on the Maturity Date, subject as provided in Condition 10 (*Payments — Bearer Notes*) or Condition 11 (*Payments — Registered Notes*).
- (b) *Redemption for tax reasons:* The Notes may be redeemed at the option of the Issuer in whole, but not in part:
 - (i) at any time (if the Floating Rate Note Provisions are not specified in the relevant Final Terms as being applicable); or
 - (ii) on any Interest Payment Date (if the Floating Rate Note Provisions are specified in the relevant Final Terms as being applicable),

on giving not less than 10 nor more than 60 days' notice to the Noteholders (which notice shall be irrevocable), at their Early Redemption Amount (Tax), together with interest accrued (if any) to the date fixed for redemption, if:

- (A) the Issuer has or will become obliged to pay additional amounts as provided or referred to in Condition 12 (*Taxation*) as a result of any change in, or amendment to, the laws or regulations of the Republic of Finland or any political subdivision or any authority thereof or therein having power to tax, or any change in the application or official interpretation of such laws or regulations (including a holding by a court of competent jurisdiction), which change or amendment becomes effective on or after the date of issue of the first Tranche of the Notes; and
- (B) such obligation cannot be avoided by the Issuer taking reasonable measures available to it,

provided, however, that no such notice of redemption shall be given earlier than:

- (1) where the Notes may be redeemed at any time, 90 days prior to the earliest date on which the Issuer would be obliged to pay such additional amounts if a payment in respect of the Notes were then due; or
- (2) where the Notes may be redeemed only on an Interest Payment Date, 60 days prior to the Interest Payment Date occurring immediately before the earliest date on which the Issuer would be obliged to pay such additional amounts if a payment in respect of the Notes were then due.

Prior to the publication of any notice of redemption pursuant to this Condition 9(b), the Issuer shall deliver to the Fiscal Agent (A) a certificate signed by two directors of the Issuer stating that the Issuer is entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to the right of the Issuer to redeem have occurred and (B) an opinion of independent legal advisers of recognised standing to the effect that the Issuer has or will become obliged to pay such additional amounts as a result of such change or amendment. Upon the expiry of any such notice as is referred to in this Condition 9(b), the Issuer shall be bound to redeem the Notes in accordance with this Condition 9(b).

- (c) *Redemption at the option of the Issuer (Call Option)*: If the Issuer Call is specified in the relevant Final Terms as being applicable, the Notes may be redeemed at the option of the Issuer in whole or, if so specified in the relevant Final Terms, in part on any Optional Redemption Date (Call) at the relevant Optional Redemption Amount (Call) on the Issuer's giving not less than 10 nor more than 60 days' notice to the Noteholders (which notice shall be irrevocable and shall oblige the Issuer to redeem the Notes or, as the case may be, the Notes specified in such notice on the relevant Optional Redemption Date (Call) at the Optional Redemption Amount (Call) plus accrued interest (if any) to such date).
- (d) *Redemption at the option of the Issuer (Make-Whole)*: If the Issuer Make-Whole is specified in the relevant Final Terms, the Issuer may, having given:
 - (i) not less than 10 nor more than 30 days' notice to the Noteholders in accordance with Condition 19 (*Notices*); and
 - (ii) not less than seven days before the giving of notice referred to in (i) above, notice to the Fiscal Agent, the Quotation Agent and such other parties as may be specified in the Final Terms,

(which notices shall be irrevocable (other than in the circumstances set out in the next sentence) and shall specify the date fixed for redemption (each such date, a "**Make-Whole Redemption Date**")) redeem, in whole or, if so specified in the relevant Final Terms, in part, the Notes then outstanding at any time prior to their Maturity Date at their Make-Whole Redemption Amount. Any such notice of redemption may, at the Issuer's discretion, be subject to one or more conditions precedent, in which case such notice shall state that, in the Issuer's discretion, the Make-Whole Redemption Date may be delayed until such time as any or all such conditions shall be satisfied (or waived by the Issuer in its sole discretion), or such redemption may not occur and such notice may be rescinded in the event that any or all such conditions shall not have been satisfied (or waived by the Issuer in its sole discretion) by the Make-Whole Redemption Date, or by the Make-Whole Redemption Date so delayed.

For the purposes of this Condition 9(d), the following expressions shall have the following meanings:

"Calculation Date" means the third Business Day prior to the Make-Whole Redemption Date.

"Make-Whole Redemption Amount" means the sum of:

- (i) the greater of (x) the Final Redemption Amount of the Notes so redeemed and (y) the sum of the then present values of the remaining scheduled payments of principal and interest on such Notes to maturity (or, if Par Call Period is specified in the applicable Final Terms, to the Par Call Commencement Date) (excluding any interest accruing on the Notes to, but excluding, the relevant Make-Whole Redemption Date) each such remaining scheduled payment of principal and interest being discounted to the relevant Make-Whole Redemption Date on either an annual or a semi-annual basis (as specified in the relevant Final Terms) at the Make-Whole Redemption Rate plus a Make-Whole Redemption Margin; and
- (ii) any interest accrued but not paid on the Notes to, but excluding, the Make-Whole Redemption Date,

as determined by the Quotation Agent and as notified on the Calculation Date by the Quotation Agent to the Issuer, the Fiscal Agent and such other parties as may be specified in the Final Terms.

"Make-Whole Redemption Margin" means the margin specified as such in the relevant Final Terms.

"Make-Whole Redemption Rate" means the average of the two quotations given by the Reference Dealers of the mid-market yield to maturity of the Reference Security on the third Business Day preceding the Make-Whole Redemption Date at 11:00 a.m. (Central European Time ("CET")) ("**Reference Dealer Quotation**").

"Quotation Agent" means any Dealer or any other international credit institution or financial services institution appointed by the Issuer for the purpose of determining the Make-Whole Redemption Amount, in each case as such Quotation Agent is identified in the relevant Final Terms.

"Reference Dealers" means each of the two banks, as specified in the relevant Final Terms or, if the two reference dealers are not so specified, the two banks as selected by the Quotation Agent, which are primary European government security dealers, and their respective successors, or market makers in pricing corporate bond issues.

"Reference Security" means the security specified as such in the relevant Final Terms. If a Reference Security is no longer outstanding, a Similar Security will be chosen by the Quotation Agent at 11:00 a.m. (CET) on the third Business Day preceding the Make-Whole Redemption Date, quoted in writing by the Quotation Agent to the Issuer and published in accordance with Condition 19 (*Notices*).

"Similar Security" means a reference bond or reference bonds issued by the same issuer as the Reference Security having actual or interpolated maturity comparable with the remaining term of the Notes that would be utilised, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the Notes.

The determination of any rate or amount, the obtaining of each quotation and the making of each determination or calculation by the Quotation Agent shall (in the absence of manifest error) be final and binding upon all parties.

- (e) *Partial redemption*: If the Notes are to be redeemed in part only on any date in accordance with Condition 9(c) (*Redemption and Purchase — Redemption at the option of the Issuer (Call Option)*) or Condition 9(d) (*Redemption and Purchase — Redemption at the option of the Issuer (Make-Whole)*), as applicable, the Notes to be redeemed shall be selected by the drawing of lots in such place as the Fiscal Agent approves and in such manner as the Fiscal Agent considers appropriate, subject to compliance with applicable law, the rules of each competent authority, stock exchange and/or quotation system (if any) by which the Notes have then been admitted to listing, trading and/or quotation and the notice to Noteholders referred to in Condition 9(c) (*Redemption and Purchase — Redemption at the option of the Issuer (Call Option)*) or Condition 9(d) (*Redemption and Purchase — Redemption at the option of the Issuer (Make-Whole)*), as applicable, shall specify the serial numbers of the Notes so to be redeemed. If any Maximum Redemption Amount or Minimum Redemption Amount is specified in the relevant Final Terms, then the Optional Redemption Amount (Call) or Make-Whole Redemption Amount, as applicable, shall in no event be greater than the maximum or be less than the minimum so specified.

- (f) *Redemption at the option of Noteholders*: If the Investor Put is specified in the relevant Final Terms as being applicable, the Issuer shall, at the option of the holder of any Note redeem such Note on the Optional Redemption Date (Put) specified in the relevant Put Option Notice at the relevant Optional Redemption Amount (Put) together with interest (if any) accrued to such date. Any conditions and/or circumstances that must be satisfied before an Investor Put can be exercised will be set out in the relevant Final Terms. In order to exercise the option contained in this Condition 9(f), the holder of a Note must, not less than 30 nor more than 60 days before the relevant Optional Redemption Date (Put), deposit with any Paying Agent such Note together with all unmatured Coupons relating thereto and a duly completed Put Option Notice in the form obtainable from any Paying Agent. The Paying Agent with which a Note is so deposited shall deliver a duly completed Put Option Receipt to the depositing Noteholder. No Note, once deposited with a duly completed Put Option Notice in accordance with this Condition 9(f), may be withdrawn; *provided, however, that* if, prior to the relevant Optional Redemption Date (Put), any such Note becomes immediately due and payable or, upon due presentation of any such Note on the relevant Optional Redemption Date (Put), payment of the redemption moneys is improperly withheld or refused, the relevant Paying Agent shall mail notification thereof to the depositing Noteholder at such address as may have been given by such Noteholder in the relevant Put Option Notice and shall hold such Note at its Specified Office for collection by the depositing Noteholder against surrender of the relevant Put Option Receipt. For so long as any outstanding Note is held by a Paying Agent in accordance with this Condition 9(f), the depositor of such Note and not such Paying Agent shall be deemed to be the holder of such Note for all purposes.
- (g) *No other redemption*: The Issuer shall not be entitled to redeem the Notes otherwise than as provided in Conditions 9(a) (*Redemption and Purchase — Scheduled redemption*) to 9(f) (*Redemption and Purchase — Redemption at the option of Noteholders*).
- (h) *Early redemption of Zero Coupon Notes*: Unless otherwise specified in the relevant Final Terms, the Redemption Amount payable on redemption of a Zero Coupon Note at any time before the Maturity Date shall be an amount equal to the sum of:
 - (i) the Reference Price; and
 - (ii) the product of the Accrual Yield (compounded annually) being applied to the Reference Price from (and including) the Issue Date to (but excluding) the date fixed for redemption or (as the case may be) the date upon which the Note becomes due and payable.

Where such calculation is to be made for a period which is not a whole number of years, the calculation in respect of the period of less than a full year shall be made on the basis of such Day Count Fraction as may be specified in the Final Terms for the purposes of this Condition 9(h) or, if none is so specified, a Day Count Fraction of 30E/360.

- (i) *Purchase*: The Issuer or any of its respective Subsidiaries may at any time purchase Notes in the open market or otherwise and at any price, provided that all unmatured Coupons are purchased therewith. Such Notes may be held, reissued, resold or, at the option of the Issuer, surrendered to any Paying Agent for cancellation.
- (j) *Cancellation*: All Notes must be cancelled if they are redeemed by the Issuer pursuant to Condition 9(c) (*Redemption and Purchase — Redemption at the option of the Issuer (Call Option)*), Condition 9(d) (*Redemption and Purchase — Redemption at the option of the Issuer (Make-Whole)*) or purchased and cancelled pursuant to Condition 9(i) (*Redemption and Purchase — Purchase*) and, in each case, any unmatured Coupons attached to or surrendered with them shall be cancelled and may not be reissued or resold.

10. **Payments — Bearer Notes**

This Condition 10 is only applicable to Bearer Notes.

- (a) *Principal*: Payments of principal shall be made only against presentation and (provided that payment is made in full) surrender of Bearer Notes at the Specified Office of any Paying Agent outside the United States by cheque drawn in the currency in which the payment is due on, or by transfer to an account denominated in that currency (or, if that currency is euro, any other account to which euro may be

credited or transferred) and maintained by the payee with, a bank in the Principal Financial Centre of that currency (in the case of a sterling cheque, a town clearing branch of a bank in the City of London).

- (b) *Interest:* Payments of interest shall, subject to Condition 10(h) (*Payments — Bearer Notes — Payments other than in respect of matured Coupons*), be made only against presentation and (provided that payment is made in full) surrender of the appropriate Coupons at the Specified Office of any Paying Agent outside the United States in the manner described in Condition 10(a) (*Payments — Bearer Notes — Principal*).
- (c) *Payments in New York City:* Payments of principal or interest may be made at the Specified Office of a Paying Agent in New York City if (i) the Issuer has appointed Paying Agents outside the United States with the reasonable expectation that such Paying Agents will be able to make payment of the full amount of the interest on the Notes in the currency in which the payment is due when due, (ii) payment of the full amount of such interest at the offices of all such Paying Agents is illegal or effectively precluded by exchange controls or other similar restrictions and (iii) payment is permitted by applicable United States law.
- (d) *Payments subject to fiscal laws:* All payments in respect of the Bearer Notes are subject in all cases to any applicable fiscal or other laws and regulations in the place of payment, but without prejudice to the provisions of Condition 12 (*Taxation*). No commissions or expenses shall be charged to the Noteholders or Couponholders in respect of such payments.
- (e) *Deductions for unmatured Coupons:* If the relevant Final Terms specifies that the Fixed Rate Note Provisions are applicable and a Bearer Note is presented without all unmatured Coupons relating thereto:
 - (i) if the aggregate amount of the missing Coupons is less than or equal to the amount of principal due for payment, a sum equal to the aggregate amount of the missing Coupons will be deducted from the amount of principal due for payment; *provided, however, that* if the gross amount available for payment is less than the amount of principal due for payment, the sum deducted will be that proportion of the aggregate amount of such missing Coupons which the gross amount actually available for payment bears to the amount of principal due for payment;
 - (ii) if the aggregate amount of the missing Coupons is greater than the amount of principal due for payment:
 - (A) so many of such missing Coupons shall become void (in inverse order of maturity) as will result in the aggregate amount of the remainder of such missing Coupons (the "**Relevant Coupons**") being equal to the amount of principal due for payment; *provided, however, that* where this Condition 10(e)(ii)(A) would otherwise require a fraction of a missing Coupon to become void, such missing Coupon shall become void in its entirety; and
 - (B) a sum equal to the aggregate amount of the Relevant Coupons (or, if less, the amount of principal due for payment) will be deducted from the amount of principal due for payment; *provided, however, that*, if the gross amount available for payment is less than the amount of principal due for payment, the sum deducted will be that proportion of the aggregate amount of the Relevant Coupons (or, as the case may be, the amount of principal due for payment) which the gross amount actually available for payment bears to the amount of principal due for payment.

Each sum of principal so deducted shall be paid in the manner provided in Condition 10(a) (*Payments — Bearer Notes — Principal*) against presentation and (provided that payment is made in full) surrender of the relevant missing Coupons.

- (f) *Unmatured Coupons void:* If the relevant Final Terms specifies that this Condition 10(f) is applicable or that the Floating Rate Note Provisions are applicable, on the due date for final redemption of any Note or early redemption in whole of such Note pursuant to Conditions 9(b) (*Redemption and Purchase — Redemption for tax reasons*), 9(c) (*Redemption and Purchase — Redemption at the option of the Issuer (Call Option)*), 9(d) (*Redemption and Purchase — Redemption at the option of the Issuer (Make-Whole)*), 9(f) (*Redemption and Purchase — Redemption at the option of Noteholders*) or Condition 13 (*Events of Default*), all unmatured Coupons relating thereto (whether or not still attached) shall become void and no payment will be made in respect thereof.

- (g) *Payments on business days:* If the due date for payment of any amount in respect of any Bearer Note or Coupon is not a Payment Business Day in the place of presentation, the Holder shall not be entitled to payment in such place of the amount due until the next succeeding Payment Business Day in such place and shall not be entitled to any further interest or other payment in respect of any such delay.
- (h) *Payments other than in respect of matured Coupons:* Payments of interest other than in respect of matured Coupons shall be made only against presentation of the relevant Bearer Notes at the Specified Office of any Paying Agent outside the United States (or in New York City if permitted by Condition 10(c) (*Payments — Bearer Notes — Payments in New York City*)).
- (i) *Partial payments:* If a Paying Agent makes a partial payment in respect of any Bearer Note or Coupon presented to it for payment, such Paying Agent will endorse thereon a statement indicating the amount and date of such payment.
- (j) *Exchange of Talons:* On or after the maturity date of the final Coupon which is (or was at the time of issue) part of a Coupon Sheet relating to the Bearer Notes, the Talon forming part of such Coupon Sheet may be exchanged at the Specified Office of the Fiscal Agent for a further Coupon Sheet (including, if appropriate, a further Talon but excluding any Coupons in respect of which claims have already become void pursuant to Condition 14 (*Prescription*)). Upon the due date for redemption of any Bearer Note, any unexchanged Talon relating to such Note shall become void and no Coupon will be delivered in respect of such Talon.

11. **Payments — Registered Notes**

This Condition 11 is only applicable to Registered Notes.

- (a) *Principal:* Payments of principal shall be made by cheque drawn in the currency in which the payment is due drawn on, or, upon application by a Holder of a Registered Note to the Specified Office of the Fiscal Agent not later than the fifteenth day before the due date for any such payment, by transfer to an account denominated in that currency (or, if that currency is euro, any other account to which euro may be credited or transferred) and maintained by the payee with, a bank in the Principal Financial Centre of that currency (in the case of a sterling cheque, a town clearing branch of a bank in the City of London) and (in the case of redemption) upon surrender (or, in the case of part payment only, endorsement) of the relevant Note Certificates at the Specified Office of any Paying Agent.
- (b) *Interest:* Payments of interest shall be made by cheque drawn in the currency in which the payment is due drawn on, or, upon application by a Holder of a Registered Note to the Specified Office of the Fiscal Agent not later than the fifteenth day before the due date for any such payment, by transfer to an account denominated in that currency (or, if that currency is euro, any other account to which euro may be credited or transferred) and maintained by the payee with, a bank in the Principal Financial Centre of that currency (in the case of a sterling cheque, a town clearing branch of a bank in the City of London) and (in the case of interest payable on redemption) upon surrender (or, in the case of part payment only, endorsement) of the relevant Note Certificates at the Specified Office of any Paying Agent.
- (c) *Payments subject to fiscal laws:* All payments in respect of the Registered Notes are subject in all cases to any applicable fiscal or other laws and regulations in the place of payment, but without prejudice to the provisions of Condition 12 (*Taxation*). No commissions or expenses shall be charged to the Noteholders in respect of such payments.
- (d) *Payments on business days:* Where payment is to be made by transfer to an account, payment instructions (for value the due date, or, if the due date is not Payment Business Day, for value the next succeeding Payment Business Day) will be initiated and, where payment is to be made by cheque, the cheque will be mailed (i) (in the case of payments of principal and interest payable on redemption) on the later of the due date for payment and the day on which the relevant Note Certificate is surrendered (or, in the case of part payment only, endorsed) at the Specified Office of a Paying Agent and (ii) (in the case of payments of interest payable other than on redemption) on the due date for payment. A Holder of a Registered Note shall not be entitled to any interest or other payment in respect of any delay in payment resulting from (A) the due date for a payment not being a Payment Business Day or (B) a cheque mailed in accordance with this Condition 11 arriving after the due date for payment or being lost in the mail.

- (e) *Partial payments:* If a Paying Agent makes a partial payment in respect of any Registered Note, the Registrar will annotate the Register with a record of the amount and date of such payment and, in the case of partial payment upon presentation of a Note Certificate, endorse on the relevant Note Certificate a statement indicating the amount and the date of such payment.
- (f) *Record date:* Each payment in respect of a Registered Note will be made to the person shown as the Holder in the Register at the close of business on the Clearing System Business Day before the due date for such payment (the "**Record Date**") where "**Clearing System Business Day**" means a day on which each of Clearstream Banking, Luxembourg and Euroclear Bank SA/NV is open for business. Where payment in respect of a Registered Note is to be made by cheque, the cheque will be mailed to the address shown as the address of the Holder in the Register at the opening of business on the relevant Record Date.

12. **Taxation**

- (a) *Gross up:* All payments of principal and interest in respect of the Notes and the Coupons by or on behalf of the Issuer shall be made free and clear of, and without withholding or deduction for or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or on behalf of the Republic of Finland or any political subdivision therein or any authority therein or thereof having power to tax, unless the withholding or deduction of such taxes, duties, assessments, or governmental charges is required by law. In that event, the Issuer shall pay such additional amounts as will result in receipt by the Noteholders and the Couponholders after such withholding or deduction of such amounts as would have been received by them had no such withholding or deduction been required, except that no such additional amounts shall be payable in respect of any Note or Coupon:
 - (i) held by or on behalf of a holder which is liable to such taxes, duties, assessments or governmental charges in respect of such Note or Coupon by reason of its having some connection with the jurisdiction by which such taxes, duties, assessments or charges have been imposed, levied, collected, withheld or assessed other than the mere holding of the Note or Coupon; or
 - (ii) presented for payment more than 30 days after the Relevant Date except to the extent that the holder of such Note or Coupon would have been entitled to such additional amounts on presenting such Note or Coupon for payment on the last day of such period of 30 days assuming that day to have been a Payment Day.
- (b) *Taxing jurisdiction:* If the Issuer becomes subject at any time to any taxing jurisdiction other than the Republic of Finland, references in these Conditions to the Republic of Finland shall be construed as references to the Republic of Finland and/or such other jurisdiction.

13. **Events of Default**

If any of the following events occur:

- (a) *Non-payment:* the Issuer fails to pay any amount of principal in respect of the Notes within seven days of the due date for payment thereof or fails to pay any amount of interest in respect of the Notes within fourteen days of the due date for payment thereof;
- (b) *Breach of other obligations:* the Issuer defaults in the performance or observance of any of its other obligations under or in respect of the Notes and such default remains unremedied for 30 days after written notice thereof, addressed to the Issuer by any Noteholder, has been delivered to the Issuer or to the Specified Office of the Fiscal Agent;
- (c) *Cross-acceleration:*
 - (i) any Indebtedness of the Issuer or any Principal Subsidiary (other than Non-recourse Securitisation Debt or Intra-Group Debt) is not paid when due (taking into account grace periods and extensions, if any) or any Indebtedness of the Issuer or any Principal Subsidiary (other than Non-recourse Securitisation Debt or Intra-Group Debt) is declared to be or otherwise becomes due and payable prior to its specified maturity by reason of the occurrence of an event of default (howsoever described); and

- (ii) the aggregate of all Indebtedness referred to in Condition 13(c)(i) exceeds EUR 125,000,000 or its equivalent in other currencies;
- (d) *Security enforced*: a secured party takes possession, or a receiver, manager or other similar officer is appointed, of the whole or a significant part of the undertaking, assets and revenues of the Issuer or any of its Principal Subsidiaries;
- (e) *Insolvency etc.*: (i) the Issuer or any of its Principal Subsidiaries becomes insolvent or is unable to pay its debts as they fall due, (ii) an administrator or liquidator of the Issuer or any of its Principal Subsidiaries or the whole or a significant part of the undertaking, assets and revenues of the Issuer or any of its Principal Subsidiaries is appointed (or application for any such appointment is made), (iii) the Issuer or any of its Principal Subsidiaries takes any action for a readjustment or deferment of any of its obligations or makes a general assignment or an arrangement or composition with or for the benefit of its creditors or declares a moratorium in respect of any of its Indebtedness;
- (f) *Winding up etc.*: an order is made or an effective resolution is passed for the winding up, liquidation or dissolution of the Issuer or any of its Principal Subsidiaries; or
- (g) *Analogous event*: any event occurs which under the laws of the Republic of Finland has an analogous effect to any of the events referred to in Conditions 13(d) (*Events of Default — Security enforced*) to 13(f) (*Events of Default — Winding up etc.*),

then any Note may, by written notice addressed by the holder thereof to the Issuer and delivered to the Issuer or to the Specified Office of the Fiscal Agent, be declared immediately due and payable, whereupon it shall become immediately due and payable at its Early Termination Amount together with accrued interest (if any) without further action or formality.

14. **Prescription**

Claims for principal in respect of Bearer Notes shall become void unless the relevant Bearer Notes are presented for payment within ten years of the appropriate Relevant Date. Claims for interest in respect of Bearer Notes shall become void unless the relevant Coupons are presented for payment within five years of the appropriate Relevant Date. Claims for principal and interest on redemption in respect of Registered Notes shall become void unless the relevant Note Certificates are surrendered for payment within ten years of the appropriate Relevant Date.

15. **Replacement of Notes and Coupons**

If any Note, Note Certificate or Coupon is lost, stolen, mutilated, defaced or destroyed, it may be replaced at the Specified Office of the Fiscal Agent, in the case of Bearer Notes, or the Registrar, in the case of Registered Notes (and, if the Notes are then admitted to listing, trading and/or quotation by any competent authority, stock exchange and/or quotation system which requires the appointment of a Paying Agent or Transfer Agent in any particular place, the Paying Agent or Transfer Agent having its Specified Office in the place required by such competent authority, stock exchange and/or quotation system), subject to all applicable laws and competent authority, stock exchange and/or quotation system requirements, upon payment by the claimant of the expenses incurred in connection with such replacement and on such terms as to evidence, security, indemnity and otherwise as the Issuer may reasonably require. Mutilated or defaced Notes, Note Certificates or Coupons must be surrendered before replacements will be issued.

16. **Agents**

In acting under the Agency Agreement and in connection with the Notes and the Coupons, the Paying Agents act solely as agents of the Issuer and the Guarantor and do not assume any obligations towards or relationship of agency or trust for or with any of the Noteholders or Couponholders.

The initial Paying Agents and their initial Specified Offices are listed below. The initial Calculation Agent (if any) is specified in the relevant Final Terms. The Issuer reserves the right at any time to vary or terminate the appointment of any Paying Agent and to appoint a successor fiscal agent or registrar or Calculation Agent and additional or successor paying agents; *provided, however, that*:

- (a) the Issuer shall at all times maintain a Fiscal Agent and a registrar;

- (b) if a Calculation Agent is specified in the relevant Final Terms, the Issuer shall at all times maintain a Calculation Agent; and
- (c) if and for so long as the Notes are admitted to listing, trading and/or quotation by any competent authority, stock exchange and/or quotation system which requires the appointment of a Paying Agent in any particular place, the Issuer shall maintain a Paying Agent having its Specified Office in the place required by such competent authority, stock exchange and/or quotation system.

Notice of any change in any of the Paying Agents or in their Specified Offices shall promptly be given to the Noteholders.

17. **Meetings of Noteholders; Modification and Waiver**

- (a) *Meetings of Noteholders:* The Agency Agreement contains provisions for convening meetings of Noteholders to consider matters relating to the Notes, including the modification of any provision of these Conditions. Any such modification may be made if sanctioned by an Extraordinary Resolution. Such a meeting may be convened by the Issuer and shall be convened by them upon the request in writing of Noteholders holding not less than one-tenth of the aggregate principal amount of the outstanding Notes. The quorum at any meeting convened to vote on an Extraordinary Resolution will be two or more Persons holding or representing one more than half of the aggregate principal amount of the outstanding Notes or, at any adjourned meeting, two or more Persons being or representing Noteholders whatever the principal amount of the Notes held or represented; *provided, however, that* Reserved Matters may only be sanctioned by an Extraordinary Resolution passed at a meeting of Noteholders at which two or more Persons holding or representing not less than three-quarters or, at any adjourned meeting, one quarter of the aggregate principal amount of the outstanding Notes form a quorum. Any Extraordinary Resolution duly passed at any such meeting shall be binding on all the Noteholders and Couponholders, whether present or not.
- (b) *Modification:* The Notes and these Conditions may be amended without the consent of the Noteholders or the Couponholders to correct a manifest error. In addition, the parties to the Agency Agreement may agree to modify any provision thereof, but the Issuer shall not agree, without the consent of the Noteholders, to any such modification unless it is of a formal, minor or technical nature, it is made to correct a manifest error or it is not materially prejudicial to the interests of the Noteholders.

18. **Further Issues**

The Issuer may from time to time, without the consent of the Noteholders or the Couponholders, create and issue further notes having the same terms and conditions as the Notes in all respects (or in all respects except for the first payment of interest) so as to form a single series with the Notes.

19. **Notices**

- (a) *Bearer Notes:* Notices to the Holders of Bearer Notes shall be valid if published in a leading English language daily newspaper published in London (which is expected to be the *Financial Times*), if such publication is not practicable, in a leading English language daily newspaper having general circulation in Europe. Any such notice shall be deemed to have been given on the date of first publication (or if required to be published in more than one newspaper, on the first date on which publication shall have been made in all the required newspapers). Couponholders shall be deemed for all purposes to have notice of the contents of any notice given to the Holders of Bearer Notes.
- (b) *Registered Notes:* Notices to the Holders of Registered Notes shall be sent to them by first class mail (or its equivalent) or (if posted to an overseas address) by airmail at their respective addresses on the Register. Any such notice shall be deemed to have been given on the fourth day after the date of mailing.

20. **Currency Indemnity**

If any sum due from the Issuer in respect of the Notes or the Coupons or any order or judgment given or made in relation thereto has to be converted from the currency (the "**first currency**") in which the same is payable under these Conditions or such order or judgment into another currency (the "**second currency**") for the purpose of (a) making or filing a claim or proof against the Issuer, (b) obtaining an order or judgment in any court or other tribunal or (c) enforcing any order or judgment given or made in relation to the Notes, the Issuer shall indemnify each Noteholder, on the written demand of such Noteholder addressed to the Issuer and delivered to the Issuer

or to the Specified Office of the Fiscal Agent, against any loss suffered as a result of any discrepancy between (i) the rate of exchange used for such purpose to convert the sum in question from the first currency into the second currency and (ii) the rate or rates of exchange at which such Noteholder may in the ordinary course of business purchase the first currency with the second currency upon receipt of a sum paid to it in satisfaction, in whole or in part, of any such order, judgment, claim or proof.

This indemnity constitutes a separate and independent obligation of the Issuer and shall give rise to a separate and independent cause of action.

21. Rounding

- (a) For the purposes of any calculations referred to in these Conditions (unless otherwise specified in these Conditions or the relevant Final Terms), (i) all percentages resulting from such calculations will be rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (with 0.000005 per cent. being rounded up to 0.00001 per cent.), (ii) all U.S. dollar amounts used in or resulting from such calculations will be rounded to the nearest cent (with one half cent being rounded up), (iii) all Japanese Yen amounts used in or resulting from such calculations will be rounded downwards to the next lower whole Japanese Yen amount, and (iv) all amounts denominated in any other currency used in or resulting from such calculations will be rounded to the nearest two decimal places in such currency, with 0.005 being rounded upwards.

22. Governing Law and Jurisdiction

- (a) *Governing law:* The Notes and all non-contractual obligations arising out of or in connection with the Notes shall be governed by and construed in accordance with English law.
- (b) *English courts:* The courts of England have exclusive jurisdiction to settle any dispute (a "**Dispute**") arising out of or in connection with the Notes (including any non-contractual obligation arising out of or in connection with the Notes).
- (c) *Appropriate forum:* The Issuer agrees that the courts of England are the most appropriate and convenient courts to settle any Dispute and, accordingly, that it will not argue to the contrary.
- (d) *Rights of the Noteholders to take proceedings outside England:* Condition 22(b) (*English courts*) is for the benefit of the Noteholders only. As a result, nothing in this Condition 22 prevents any Noteholder from taking proceedings relating to a Dispute ("**Proceedings**") in any other courts with jurisdiction. To the extent allowed by law, Noteholders may take concurrent Proceedings in any number of jurisdictions.
- (e) *Process agent:* Without prejudice to any other mode of service allowed under any relevant law, the Issuer irrevocably agrees that the documents which start any Proceedings and any other documents required to be served in relation to those Proceedings may be served on it by being delivered to Nokia UK Limited as its agent at 740, Waterside Drive, Aztec West Business Park, Almondsbury, Bristol, BS32 4UF, United Kingdom or, if different, its registered office for the time being or at any address of the Issuer in the United Kingdom at which process may be served on it. The Issuer agrees that failure by an agent for service of process to notify it will not invalidate the proceedings concerned. If such person is not or ceases to be effectively appointed to accept service of process on behalf of the Issuer, the Issuer shall, on the written demand of any Noteholder addressed and delivered to the Issuer or to the Specified Office of the Fiscal Agent appoint a further person in England to accept service of process on its behalf and, failing such appointment within 15 days, any Noteholder shall be entitled to appoint such a person by written notice addressed to the Issuer and delivered to the Issuer or to the Specified Office of the Fiscal Agent. Nothing in this Condition 22(e) shall affect the right of any Noteholder to serve process in any other manner permitted by law. This Condition applies to Proceedings in England and to Proceedings elsewhere.

FORM OF FINAL TERMS

Final Terms dated []

NOKIA CORPORATION
Issue of [][]
under the EUR 5,000,000,000
Euro Medium Term Note Programme

PART A — CONTRACTUAL TERMS

[PROHIBITION OF SALES TO EEA RETAIL INVESTORS - The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("**EEA**"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MiFID II**"); or (ii) a customer within the meaning of Directive 2002/92/EC (as amended or superseded, "**IMD**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II or (iii) not a qualified investor as defined in Directive 2003/71/EC (as amended or superseded, the "**Prospectus Directive**"). Consequently, no key information document required by Regulation (EU) No 1286/2014 (as amended, the "**PRIIPs Regulation**") for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.]

[MiFID II product governance / Professional investors and ECPs only target market – Solely for the purposes of [the/each] manufacturer's product approval process, the target market assessment in respect of the Notes has led to the conclusion that: (i) the target market for the Notes is eligible counterparties and professional clients only, each as defined in [Directive 2014/65/EU (as amended, "**MiFID II**")][MiFID II]; and (ii) all channels for distribution of the Notes to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Notes (a "**distributor**") should take into consideration the manufacturer['s/s'] target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the manufacturer['s/s'] target market assessment) and determining appropriate distribution channels.]¹

[Terms used herein shall be deemed to be defined as such for the purposes of the Conditions (the "**Conditions**") set forth in the base prospectus dated 1 March 2019 [and the supplemental prospectus dated [] which [together] constitute[s] a base prospectus] (the "**Base Prospectus**") for the purposes of the Prospectus Directive. This document constitutes the Final Terms of the Notes described herein for the purposes of Article 5.4 of the Prospectus Directive. These Final Terms contain the final terms of the Notes and must be read in conjunction with such Base Prospectus [and the supplement[s] to it].]

[Terms used herein shall be deemed to be defined as such for the purposes of the Conditions (the "**Conditions**") set forth in the base prospectus dated [8 December 2008/21 February 2017] [and the supplemental prospectus dated []] which are incorporated by reference in the base prospectus dated 1 March 2019 (the "**Base Prospectus**"). This document constitutes the Final Terms of the Notes described herein for the purposes of Article 5.4 of the Prospectus Directive. These Final Terms contain the final terms of the Notes and must be read in conjunction with the Base Prospectus [as so supplemented], which [together] constitute[s] a base prospectus for the purposes of the Prospectus Directive, save in respect of the Conditions which are extracted from the base prospectus dated [8 December 2008/21 February 2017] [and the supplement[s] to it]].

Full information on the Issuer and the offer of the Notes described herein is only available on the basis of the combination of these Final Terms and the Base Prospectus [as so supplemented]. The Base Prospectus [and the supplemental prospectus] [is] [are] available on [the website of Euronext Dublin <http://www.ise.ie/Market-Data-Announcements/Debt/Individual-Debt-Instrument-Data/Dept-Security-Documents/?progID=750&uID=5437&FIELD SORT=docId>] and for viewing during normal business hours at the registered office of the Issuer at Karaportti 3, FI-02610 Espoo, Finland.

¹ Legend to be included on front of the Final Terms if following the ICMA 1 "all bonds to all professionals" target market approach.

1. (i) Issuer: Nokia Corporation
2. (i) Series Number: []
- (ii) Tranche Number: []
- [(iii) Date on which Notes shall be consolidated and form a single series:] [Not Applicable/The Notes shall be consolidated, form a single series and be interchangeable for trading purposes with the [] on []/the Issue Date/exchange of the Temporary Global Note for interests in the Permanent Global Note, as referred to in paragraph 22 below [which is expected to occur on or about []]
3. Specified Currency: []
4. Aggregate Nominal Amount: []
- (i) Series: []
- (ii) Tranche: []
5. Issue Price: [] per cent. of the Aggregate Nominal Amount [plus accrued interest from []]
6. (i) Specified Denominations: [] subject to a minimum denomination of EUR 100,000 or the equivalent amount in any other currency
- (ii) Calculation Amount: []
7. (i) Issue Date: []
- (ii) Interest Commencement Date: [[]/Issue Date/Not Applicable]
8. Maturity Date: [[]/Interest Payment Date falling in or nearest to []]
9. Interest Basis: [[] per cent. Fixed Rate]
[[[•] month
LIBOR/EURIBOR/NIBOR/STIBOR]]
+/- [] per cent.
Floating Rate]
[Zero Coupon]
10. Redemption/Payment Basis: [Subject to any purchase and cancellation or early redemption, the Notes will be redeemed on the Maturity Date at par]
11. Change of Interest or Redemption/Payment Basis: [Applicable/Not Applicable]
12. Put/Call Options: [Issuer Call]
[Issuer Make-Whole]
[Investor Put]
[See paragraph [17/18/19] below]
13. Date [Board] approval for issuance of Notes obtained: []

Provisions Relating to Interest (if any) Payable

14. **Fixed Rate Note Provisions** [Applicable/Not Applicable]
- (i) Rate(s) of Interest: [] per cent. per annum [payable [annually/semi-annually/quarterly/monthly] in arrear on each Interest Payment Date]
- (ii) Interest Payment Date(s): [] in each year up to and including the Maturity Date [adjusted in accordance with []/not adjusted]
- (iii) Fixed Coupon Amount[(s)]: [] per Calculation Amount
- (iv) Broken Amount(s): [] per Calculation Amount, payable on the Interest Payment Date falling [in/on] [] [Not Applicable]
- (v) Day Count Fraction: [30/360 / Actual/Actual (ICMA) / Actual/365 / Actual/Actual(ISDA) / Actual/365 (Fixed) / Actual/360 / 30E/360 / Eurobond Basis / 30E/360(ISDA)]
15. **Floating Rate Note Provisions** [Applicable/Not Applicable]

- (i) Specified Period: []
- (ii) Specified Interest Payment Dates: []
- (iii) First Interest Payment Date: []
- (iv) Business Day Convention: [FRN Convention/Floating Rate Convention/Eurodollar Convention /Following Business Day Convention/Modified Following Business Day Convention/Modified Business Day Convention/Preceding Business Day Convention/No Adjustment]
- (v) Additional Business Centre(s): []
- (vi) Manner in which the Rate(s) of Interest is/are to be determined: [Screen Rate Determination/ISDA Determination]
- (vii) Party responsible for calculating the Rate(s) of Interest and/or Interest Amount(s) (if not the Fiscal Agent): [[Name] shall be the Calculation Agent]
- (viii) Screen Rate Determination:
 • Reference Rate: [LIBOR/EURIBOR/NIBOR/STIBOR]
 • Interest Determination Date(s): []
 • Relevant Screen Page: []
 • Relevant Time: []
 • Relevant Financial Centre: []
- (ix) ISDA Determination:
 ISDA 2006 Definitions: [Applicable/Not Applicable]
 • Floating Rate Option: []
 • Designated Maturity: []
 • Reset Date: []
- (x) Linear Interpolation: [Not Applicable/Applicable - the Rate of interest for the [long/short] [first/last] Interest Period shall be calculated using Linear Interpolation (*specify for each short or long interest period*)]
- (xi) Margin(s): [+/-][] per cent. per annum
- (xii) Minimum Rate of Interest: [] per cent. per annum
- (xiii) Maximum Rate of Interest: [] per cent. per annum
- (xiv) Day Count Fraction: [Actual/Actual (ICMA) / Actual/365 / Actual/Actual (ISDA) / Actual/365 (Fixed) / Actual/360 / 30/360 / 30E/360 / Eurobond Basis / 30E/360(ISDA)]

16. Zero Coupon Note Provisions

- (i) Accrual Yield: [] per cent. per annum
- (ii) Reference Price: []
- (iii) Day Count Fraction in relation to Early Redemption Amounts: [Actual/Actual (ICMA) / Actual/365 / Actual/Actual (ISDA) / Actual/365 (Fixed) / Actual/360 / 30/360 / 30E/360 / Eurobond Basis/30E/360(ISDA)]

PROVISIONS RELATING TO REDEMPTION

17. Issuer Call

- (i) Optional Redemption Date(s) (Call): []
- (ii) Optional Redemption: [] per Calculation Amount
 [in the case of the Optional Redemption Date(s) falling [on []]/[in the period (the Par Call Period) from and including [insert date]

(the Par Call Period Commencement Date) to but excluding [date]] [and [[] per Calculation Amount] [in the case of the Optional Redemption Date(s) falling [on []/in the period from and including [date] to but excluding [date]]

- Amount(s) (Call) of each Note:
- (iii) If redeemable in part:
 - (a) Minimum Redemption Amount: [] per Calculation Amount
 - (b) Maximum Redemption Amount [] per Calculation Amount
 - (iv) Notice period: []
 - 18. **Issuer Make-Whole** [Applicable/ /Not Applicable]
 - (i) Parties to be notified by Issuer of Make-Whole Redemption Date and Make-Whole Redemption Amount (if other than set out in Condition 9(d)): [] [Not Applicable]
 - (ii) Make-Whole Redemption Margin: []
 - (iii) Discounting basis for purposes of calculating sum of the present values of the remaining scheduled payments of principal and interest on Redeemed Notes in the determination of the Make-Whole Redemption Amount: [Annual/Semi-Annual]
 - (iv) Reference Security: [] [Not Applicable]
 - (v) Reference Dealers: [] [Not Applicable]
 - (vi) Quotation Agent: [] [Not Applicable]
 - (vii) If redeemable in part:
 - (a) Minimum Redemption Amount: [] per Calculation Amount
 - (b) Maximum Redemption Amount [] per Calculation Amount
 - 19. **Investor Put** [Applicable/Not Applicable]
 - (i) Optional Redemption Date(s): []
 - (ii) Optional Redemption Amount(s) (Put) of each Note: [] per Calculation Amount
 - (iii) Notice period: []
 - 20. **Final Redemption Amount of each Note** [] per Calculation Amount
 - 21. **Early Redemption Amount** [Not Applicable/[] per Calculation Amount]

Early Redemption Amount(s) per Calculation Amount payable on redemption for taxation reasons or on event of default or other early redemption:

GENERAL PROVISIONS APPLICABLE TO THE NOTES

22. **Form of Notes:**

Bearer Notes: [Temporary Global Note exchangeable for a Permanent Global Note which is exchangeable for Definitive Notes on [] days' notice/at any time/in the limited circumstances specified in the Permanent Global Note]
 [Temporary Global Note exchangeable for Definitive Notes on [] days' notice]
 [Permanent Global Note exchangeable for Definitive Notes on [] days' notice/at any time/in the limited circumstances specified in the Permanent Global Note]

[The exchange upon notice/at any time options should not be expressed to be applicable if the Specified Denomination of the Notes in paragraph 6 includes language substantially to the following effect: "[€100,000] and integral multiples of [€1,000] in excess thereof up to

and including [€199,000]."]

Registered Notes: [Global Registered Note [U.S.\$/Euro [●] nominal amount registered in the name of a nominee for DTC/a common depository for Euroclear and Clearstream, Luxembourg / a common safekeeper for Euroclear and Clearstream, Luxembourg (that is held under the New Safekeeping Structure (NSS))]

23. New Global Note: [Yes]/[No]
24. Additional Financial Centre(s): [Not Applicable/[]]
25. Talons for future Coupons to be attached to Definitive Notes (and dates on which such Talons mature): [Yes]/[No]
26. Prohibition of Sales to EEA Retail Investors [Applicable/Not Applicable]

[Where the Notes clearly do not constitute "packaged" products, "Not Applicable" should be specified. If the Notes may constitute "packaged" products and no key information document will be prepared, "Applicable" should be specified.]

THIRD PARTY INFORMATION

[] has been extracted from []. The Issuer confirms that such information has been accurately reproduced and that, so far as it is aware, and is able to ascertain from information published by [], no facts have been omitted which would render the reproduced information inaccurate or misleading.]/[Not applicable.]

Signed on behalf of Nokia Corporation:

By: _____
Duly authorised

PART B — OTHER INFORMATION

1. LISTING

- (i) Admission to trading and listing: [[Application has been made/Application is expected to be made by the Issuer] (or on its behalf) for the Notes to be admitted to trading on Euronext Dublin's regulated market with effect from [].]
[[Application has been made/Application is expected to be made by the Issuer] (or on its behalf) for the Notes to be admitted to listing on the Official List of Euronext Dublin with effect from [].]
- (ii) Estimate of total expenses related to admission to trading: []

2. RATINGS

- Ratings: [[The Notes to be issued [have been/are expected to be] rated]/[The following ratings reflect ratings assigned to Notes of this type issued under the Programme generally]]:
[S&P: []]
[Moody's: []]

3. INTERESTS OF NATURAL AND LEGAL PERSONS INVOLVED IN THE ISSUE/OFFER

[Save for any fees payable to the [Dealers/Managers], so far as the Issuer is aware, no person involved in the issue of the Notes has an interest material to the offer. The [Dealers/Managers] and their affiliates have engaged, and may in the future engage, in investment banking and/or commercial banking transactions with, and may perform other services for, the Issuer and its affiliates in the ordinary course of business.]/[Not applicable.]

4. [REASONS FOR THE OFFER

[]]

5. [YIELD (Fixed Rate Notes only)

- Indication of yield: []
[The yield is calculated at the Issue Date on the basis of the Issue Price. It is not an indication of future yield.]

6. OPERATIONAL INFORMATION

- (i) ISIN: []
- (ii) Common Code: []
- (iii) Any clearing system(s) other than Euroclear Bank SA/NV and Clearstream Banking S.A. and the relevant identification number(s): []
- (iv) Names and addresses of additional Paying Agent(s) (if any): []
- (v) Intended to be held in a manner which would allow Eurosystem eligibility: [Yes] *[Note that the designation "yes" simply means that the Notes are intended upon issue to be deposited with one of the ICSDs as common safekeeper [(and registered in the name of a nominee of one of the ICSDs acting as common safekeeper)] [include this text for registered notes] and does not necessarily mean that the Notes will be recognised as eligible collateral for Eurosystem monetary policy and intra day credit operations by the Eurosystem either upon issue or at any or all times during their life. Such recognition will depend upon the ECB being satisfied that*

Eurosystem eligibility criteria have been met.]

[No] [Whilst the designation is specified as "no" at the date of these Final Terms, should the Eurosystem eligibility criteria be amended in the future such that the Notes are capable of meeting them the Notes may then be deposited with one of the ICSDs as common safekeeper [(and registered in the name of a nominee of one of the ICSDs acting as common safekeeper,)] [include this text for registered notes]. Note that this does not necessarily mean that the Notes will then be recognised as eligible collateral for Eurosystem monetary policy and intra day credit operations by the Eurosystem at any time during their life. Such recognition will depend upon the ECB being satisfied that Eurosystem eligibility criteria have been met.]

7. DISTRIBUTION

U.S. Selling Restrictions:

[Reg. S Category 2]

(In the case of Bearer Notes)

[TEFRA C/TEFRA D/TEFRA not applicable]

(In the case of Registered Notes)

[Not Applicable]

SUMMARY OF PROVISIONS RELATING TO THE NOTES WHILE IN GLOBAL FORM

Clearing System Accountholders

In relation to any Tranche of Notes represented by a Global Note in bearer form, references in the Terms and Conditions of the Notes to "**Noteholder**" are references to the bearer of the relevant Global Note which, for so long as the Global Note is held by a depositary or a common depositary, in the case of a CGN, or a common safekeeper, in the case of a NGN for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system, will be that depositary or common depositary or, as the case may be, common safekeeper.

In relation to any Tranche of Notes represented by a Global Registered Note, references in the Terms and Conditions of the Notes to "**Noteholder**" are references to the person in whose name such Global Registered Note is for the time being registered in the Register which, for so long as the Global Registered Note is held by or on behalf of a depositary or a common depositary or a common safekeeper (or its nominee) for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system, will be that depositary or common depositary or a common safekeeper (or its nominee) for that depositary or common depositary or common safekeeper (or its nominee).

Each of the persons shown in the records of Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system as being entitled to an interest in a Global Note or a Global Registered Note (each an "**Accountholder**") must look solely to Euroclear and/or Clearstream, Luxembourg and/or such other relevant clearing system (as the case may be) for such Accountholder's share of each payment made by the Issuer or the Guarantor to the holder of such Global Note or Global Registered Note and in relation to all other rights arising under such Global Note or Global Registered Note. The extent to which, and the manner in which, Accountholders may exercise any rights arising under the Global Note or Global Registered Note will be determined by the respective rules and procedures of Euroclear and Clearstream, Luxembourg and any other relevant clearing system from time to time. For so long as the relevant Notes are represented by a Global Note or Global Registered Note, Accountholders shall have no claim directly against the Issuer or the Guarantor in respect of payments due under the Notes and such obligations of the Issuer and the Guarantor will be discharged by payment to the holder of such Global Note or Global Registered Note.

Exchange of Temporary Global Notes

Whenever any interest in a Temporary Global Note is to be exchanged for an interest in a Permanent Global Note, the Issuer shall procure:

- (a) in the case of first exchange, the prompt delivery (free of charge to the bearer) of such Permanent Global Note, duly authenticated and, in the case of a NGN, effectuated, to the bearer of the Temporary Global Note; or
- (b) in the case of any subsequent exchange, an increase in the principal amount of such Permanent Global Note in accordance with its terms,

in each case in an aggregate principal amount equal to the aggregate of the principal amounts specified in the certificates issued by Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system and received by the Fiscal Agent against presentation and (in the case of final exchange) surrender of the Temporary Global Note to or to the order of the Fiscal Agent within seven days of the bearer requesting such exchange.

Whenever a Temporary Global Note is to be exchanged for Definitive Notes, the Issuer shall procure the prompt delivery (free of charge to the bearer) of such Definitive Notes, duly authenticated and with Coupons and Talons attached (if so specified in the relevant Final Terms), in an aggregate principal amount equal to the principal amount of the Temporary Global Note to the bearer of the Temporary Global Note against the surrender of the Temporary Global Note to or to the order of the Fiscal Agent within 30 days of the bearer requesting such exchange.

If:

- (a) a Permanent Global Note has not been delivered or the principal amount thereof increased by 5.00 p.m. (London time) on the seventh day after the bearer of a Temporary Global Note has requested exchange of an interest in the Temporary Global Note for an interest in a Permanent Global Note; or

- (b) Definitive Notes have not been delivered by 5.00 p.m. (London time) on the thirtieth day after the bearer of a Temporary Global Note has requested exchange of the Temporary Global Note for Definitive Notes; or
- (c) a Temporary Global Note (or any part thereof) has become due and payable in accordance with the Terms and Conditions of the Notes or the date for final redemption of a Temporary Global Note has occurred and, in either case, payment in full of the amount of principal falling due with all accrued interest thereon has not been made to the bearer of the Temporary Global Note in accordance with the terms of the Temporary Global Note on the due date for payment,

then the Temporary Global Note (including the obligation to deliver a Permanent Global Note or increase the principal amount thereof or deliver Definitive Notes, as the case may be) will become void at 5.00 p.m. (London time) on such seventh day (in the case of (a) above) or at 5.00 p.m. (London time) on such thirtieth day (in the case of (b) above) or at 5.00 p.m. (London time) on such due date (in the case of (c) above), and the bearer of the Temporary Global Note will have no further rights thereunder (but without prejudice to the rights which the bearer of the Temporary Global Note or others may have under the Deed of Covenant). Under the Deed of Covenant, persons shown in the records of Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system as being entitled to an interest in a Temporary Global Note will acquire directly against the Issuer all those rights to which they would have been entitled if, immediately before the Temporary Global Note became void, they had been the holders of Definitive Notes in an aggregate principal amount equal to the principal amount of Notes they were shown as holding in the records of Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system. In relation to any issue of Notes which are represented by a "Global Note exchangeable to Definitive Notes" in circumstances other than in the limited circumstances specified in the Global Note, such Notes may only be issued in principal amounts of at least the Specified Denomination (or if more than one Specified Denomination, the lowest Specified Denomination).

Exchange of Permanent Global Notes

Whenever a Permanent Global Note is to be exchanged for Definitive Notes, the Issuer shall procure the prompt delivery (free of charge to the bearer) of such Definitive Notes, duly authenticated and with Coupons and Talons attached (if so specified in the relevant Final Terms), in an aggregate principal amount equal to the principal amount of the Permanent Global Note to the bearer of the Permanent Global Note against the surrender of the Permanent Global Note to or to the order of the Fiscal Agent within 30 days of the bearer requesting such exchange.

If:

- (a) Definitive Notes have not been delivered by 5.00 p.m. (London time) on the thirtieth day after the bearer of a Permanent Global Note has duly requested exchange of the Permanent Global Note for Definitive Notes; or
- (b) a Permanent Global Note (or any part of it) has become due and payable in accordance with the Terms and Conditions of the Notes or the date for final redemption of the Notes has occurred and, in either case, payment in full of the amount of principal falling due with all accrued interest thereon has not been made to the bearer of the Permanent Global Note in accordance with the terms of the Permanent Global Note on the due date for payment,

then the Permanent Global Note (including the obligation to deliver Definitive Notes) will become void at 5.00 p.m. (London time) on such thirtieth day (in the case of (a) above) or at 5.00 p.m. (London time) on such due date (in the case of (b) above), and the bearer of the Permanent Global Note will have no further rights thereunder (but without prejudice to the rights which the bearer of the Permanent Global Note or others may have under the Deed of Covenant). Under the Deed of Covenant, persons shown in the records of Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system as being entitled to an interest in a Permanent Global Note will acquire directly against the Issuer all those rights to which they would have been entitled if, immediately before the Permanent Global Note became void, they had been the holders of Definitive Notes in an aggregate principal amount equal to the principal amount of Notes they were shown as holding in the records of Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system.

Exchange of Global Registered Notes

Whenever a Global Registered Note is to be exchanged for Individual Note Certificates, the Issuer shall procure that Individual Note Certificates will be issued in an aggregate principal amount equal to the principal amount of the Global Registered Note within five business days of the delivery, by or on behalf of the holder of the Global Registered Note to the Registrar of such information as is required to complete and deliver such Individual Note Certificates (including, without limitation, the names and addresses of the persons in whose names the Individual Note Certificates are to be registered and the principal amount of each such person's holding) against the surrender of the Global Registered Note at the specified office of the Registrar. Such exchange will be effected in accordance with the provisions of the Agency Agreement and the regulations concerning the transfer and registration of Notes scheduled thereto and, in particular, shall be effected without charge to any holder, but against such indemnity as the Registrar may require in respect of any tax or other duty of whatsoever nature which may be levied or imposed in connection with such exchange.

If:

- (a) Individual Note Certificates have not been delivered by 5.00 p.m. (London time) on the thirtieth day after they are due to be issued and delivered in accordance with the terms of the Global Registered Note; or
- (b) any of the Notes represented by a Global Registered Note (or any part of it) has become due and payable in accordance with the Terms and Conditions of the Notes or the date for final redemption of the Notes has occurred and, in either case, payment in full of the amount of principal falling due with all accrued interest thereon has not been made to the holder of the Global Registered Note in accordance with the terms of the Global Registered Note on the due date for payment,

then the Global Registered Note (including the obligation to deliver Individual Note Certificates) will become void at 5.00 p.m. (London time) on such thirtieth day (in the case of (a) above) or at 5.00 p.m. (London time) on such due date (in the case of (b) above), and the holder of the Global Registered Note will have no further rights thereunder (but without prejudice to the rights which the holder of the Global Registered Note or others may have under the Deed of Covenant). Under the Deed of Covenant, persons shown in the records of Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system as being entitled to an interest in a Global Registered Note will acquire directly against the Issuer all those rights to which they would have been entitled if, immediately before the Global Registered Note became void, they had been the holders of Individual Note Certificates in an aggregate principal amount equal to the principal amount of Notes they were shown as holding in the records of Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system.

Conditions applicable to Global Notes

Each Global Note and Global Registered Note will contain provisions which modify the Terms and Conditions of the Notes as they apply to the Global Note or Global Registered Note. The following is a summary of certain of those provisions:

Payments: All payments in respect of the Global Note or Global Registered Note which, according to the Terms and Conditions of the Notes, require presentation and/or surrender of a Note, Note Certificate or Coupon will be made against presentation and (in the case of payment of principal in full with all interest accrued thereon) surrender of the Global Note or Global Registered Note to or to the order of any Paying Agent and will be effective to satisfy and discharge the corresponding liabilities of the Issuer in respect of the Notes. On each occasion on which a payment of principal or interest is made in respect of the Global Note, the Issuer shall procure that in respect of a CGN the payment is noted in a schedule thereto and in respect of a NGN the payment is entered pro rata in the records of Euroclear and Clearstream, Luxembourg.

Exercise of investor put: In order to exercise the option contained in Condition 9(f) (*Redemption and Purchase — Redemption at the option of Noteholders*) the bearer of the Permanent Global Note or the holder of a Global Registered Note must, within the period specified in the Conditions for the deposit of the relevant Note and put notice, give written notice of such exercise to the Fiscal Agent specifying the principal amount of Notes in respect of which such option is being exercised. Any such notice will be irrevocable and may not be withdrawn.

Partial exercise of Issuer call or Issuer make-whole: In connection with an exercise of the option contained in Condition 9(c) (*Redemption and Purchase — Redemption at the option of the Issuer (Call Option)*) or Condition 9(d) (*Redemption and Purchase — Redemption at the option of the Issuer (Make-Whole)*) in relation to some only of the Notes, the Permanent Global Note or Global Registered Note may be redeemed in part in the

principal amount specified by the Issuer in accordance with the Conditions and the Notes to be redeemed will not be selected as provided in the Conditions but in accordance with the rules and procedures of Euroclear and Clearstream, Luxembourg (to be reflected in the records of Euroclear and Clearstream, Luxembourg as either a pool factor or a reduction in principal amount, at their discretion).

Notices: Notwithstanding Condition 19 (*Notices*), while all the Notes are represented by a Permanent Global Note (or by a Permanent Global Note and/or a Temporary Global Note) or a Global Registered Note and the Permanent Global Note is (or the Permanent Global Note and/or the Temporary Global Note are), or the Global Registered Note is, deposited with a depositary or a common depositary for Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system or a common safekeeper, notices to Noteholders may be given by delivery of the relevant notice to Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system and, in any case, such notices shall be deemed to have been given to the Noteholders in accordance with Condition 19 (*Notices*) on the date of delivery to Euroclear and/or Clearstream, Luxembourg and/or any other relevant clearing system.

SELECTED FINANCIAL DATA

Reconciliation of Our Alternative Performance Measures

We present gross profit, gross margin, EBITDA, EBITDA-margin and operating margin of each segment and Nokia Group as supplemental measures of our operating performance.

For our segments, we define:

- **"gross profit"** of each segment as segment net sales less segment cost of sales;
- **"gross margin"** as segment gross profit divided by segment net sales;
- **"segment EBITDA"** as segment operating profit before depreciation and amortisation charges and share of results of associated companies and joint ventures;
- **"segment EBITDA-margin"** as segment EBITDA divided by segment net sales;
- **"operating margin"** of each segment as segment operating profit divided by segment net sales. Our segment reporting is based on operating results, which exclude unallocated items; and
- **"operating profit"** as profit from continuing operations of each segment before interest and taxes. Operating profit in segment reporting excludes unallocated items.

For Nokia Group, we define:

- **"gross profit"** as net sales less cost of sales;
- **"gross margin"** as gross profit divided by net sales;
- **"EBITDA"** as profit/(loss) from continuing operations plus (i) income tax (expense) / benefit, (ii) financial income and expenses and (iii) depreciation and amortisation;
- **"EBITDA-margin"** as EBITDA divided by net sales;
- **"operating margin"** as operating profit divided by net sales; and
- **"operating profit"** as profit from continuing operations before interest and taxes.

Gross profit, gross margin, EBITDA, EBITDA-margin and operating margin have limitations as analytical tools, and you should not consider them in isolation, or as a substitute for an analysis of our results as reported under IFRS.

The following tables set forth the reconciliation of gross profit and gross margin of each segment to net sales, EBITDA, EBITDA-margin and operating margin of each segment to its operating profit/(loss) measure and to the Nokia reported total Profit/(Loss) from Continuing operations for the years ended 31 December 2018 and 2017 and for the three-month periods ended 31 December 2018 and 2017, respectively:

Continuing operations Q4/2018	Ultra Broadband Networks	Global Services	IP Networks and Applications	Nokia's Networks business Total	Nokia Technologies	Group Common and Other	Elimi- nations	Total Seg- ments	Unallocated	Nokia Total
EUR million										
	(unaudited)									
Net sales	2,654	1,765	1,795	6,215	423	255	(21)	6,872	(3)	6,869
Cost of sales	(1,460)	(1,375)	(914)	(3,749)	(3)	(226)	21	(3,957)	(151)	(4,108)
Gross profit	1,194	390	881	2,465	420	30		2,915	(154)	2,761
Gross margin	45.0%	22.1%	49.1%	39.7%	99.3%	11.8%		42.4%		40.2%
EBITDA	381	197	397	975	353	(55)		1,272	(335)	937
EBITDA-margin	14.4%	11.2%	22.1%	15.7%	83.5%	(21.6)%		18.5%		13.6%
Depreciation and amortisation	(62)	(17)	(36)	(116)	(6)	(12)		(133)	(234)	(367)
Share of results of associated companies and joint ventures	(18)			(18)				(18)		(18)
Operating profit/(loss)	301	180	361	841	347	(68)		1,120	(568)	552
Operating margin	11.3%	10.2%	20.1%	13.5%	82.0%	(26.7)%		16.3%		8.0%
Share of results of associated companies and joint ventures	18			18				18		18
Financial income and expenses										(89)
Income tax (expense)/benefit										(278)
Profit/(Loss) from continuing operations										203
	(unaudited)									
Continuing operations Q4/2017	Ultra Broadband Networks	Global Services	IP Networks and Applications	Nokia's Networks business Total	Nokia Technologies	Group Common and Other	Elimi- nations	Total Seg- ments	Unallocated	Nokia Total
EUR million										
	(unaudited)									
Net sales	2,471	1,642	1,714	5,827	554	302	(16)	6,668	(17)	6,651
Cost of sales	(1,323)	(1,357)	(953)	(3,634)	(30)	(258)	16	(3,906)	(153)	(4,058)
Gross profit	1,147	285	761	2,193	524	45		2,762	(169)	2,593
Gross margin	46.4%	17.4%	44.4%	37.6%	94.6%	14.9%		41.4%		39.0%
EBITDA	340	142	294	776	391	(18)		1,149	(334)	815
EBITDA-margin	13.8%	8.6%	17.2%	13.3%	70.6%	(6.0)%		17.2%		12.3%
Depreciation and amortisation	(57)	(20)	(36)	(113)	(2)	(14)		(129)	(251)	(380)
Share of results of associated companies and joint ventures	(17)			(17)				(17)		(17)
Operating profit/(loss)	267	121	259	647	389	(31)		1,004	(585)	419
Operating margin	10.8%	7.4%	15.1%	11.1%	70.2%	(10.3)%		15.1%		6.3%
Share of results of associated companies and joint ventures	17			17				17		17
Financial income and expenses										(41)
Income tax (expense)/benefit										(772)
Profit/(Loss) from continuing operations										(378)

Continuing operations 2018	Ultra Broadband Networks	Global Services	IP Networks and Applications	Nokia's Networks business Total	Nokia Technologies	Group Common and Other	Eliminations	Total Segments	Unallocated	Nokia Total
EUR million										
					(unaudited)					
Net sales	8,692	5,710	5,719	20,121	1,501	1,021	(63)	22,580	(17)	22,563
Cost of sales	(4,816)	(4,709)	(3,196)	(12,721)	(22)	(865)	63	(13,545)	(572)	(14,117)
Gross profit	3,876	1,001	2,523	7,400	1,479	156		9,035	(590)	8,446
Gross margin	44.6%	17.5%	44.1%	36.8%	98.5%	15.3%		40.0%		37.4%
EBITDA	758	308	594	1,660	1,224	(176)		2,708	(1,300)	1,408
EBITDA-margin	8.7%	5.4%	10.4%	8.3%	81.5%	(17.2)%		12.0%		6.2%
Depreciation and amortisation	(236)	(66)	(147)	(449)	(21)	(45)		(515)	(940)	(1,455)
Share of results of associated companies and joint ventures	(12)			(12)				(12)		(12)
Operating profit/(loss)	510	242	447	1,199	1,203	(221)		2,180	(2,239)	(59)
Operating margin	5.9%	4.2%	7.8%	6.0%	80.1%	(21.6)%		9.7%		(0.3)%
Share of results of associated companies and joint ventures	12			12				12		12
Financial income and expenses										(313)
Income tax (expense)/benefit										(189)
Profit/(Loss) from continuing operations										(549)

Continuing operations 2017	Ultra Broadband Networks	Global Services	IP Networks and Applications	Nokia's Networks business Total	Nokia Technologies	Group Common and Other	Eliminations	Total Segments	Unallocated	Nokia Total
EUR million										
					(unaudited, unless otherwise indicated)					
Net sales	8,970	5,810	5,743	20,523	1,654	1,114	(69)	23,222	(75)	23,147⁽¹⁾
Cost of sales	(4,723)	(4,698)	(3,169)	(12,590)	(71)	(957)	69	(13,549)	(460)	(14,008 ⁽¹⁾)
Gross profit	4,247	1,113	2,573	7,933	1,583	158		9,674	(535)	9,139⁽¹⁾
Gross margin	47.3%	19.2%	44.8%	38.7%	95.7%	14.2%		41.7%		39.5%
EBITDA	1,060	491	679	2,231	1,126	(201)		3,156	(1,538)	1,618
EBITDA-margin	11.8%	8.5%	11.8%	10.9%	68.1%	(18.0)%		13.6%		7.0%
Depreciation and amortisation ⁽¹⁾	(258)	(80)	(160)	(498)	(12)	(48)		(558)	(1,033)	(1,591)
Share of results of associated companies and joint ventures ⁽¹⁾	(21)			(21)	10			(11)		(11)
Operating profit/(loss)⁽¹⁾	781	411	519	1,711	1,124	(248)		2,587	(2,571)	16
Operating margin	8.7%	7.1%	9.0%	8.3%	68.0%	(22.2)%		11.1%		0.1%
Share of results of associated companies and joint ventures ⁽¹⁾	21			21	(10)			11		11
Financial income and expenses ⁽¹⁾										(537)
Income tax (expense)/benefit ⁽¹⁾										(927)
Profit/(Loss) from continuing operations⁽¹⁾										(1,437)

⁽¹⁾ Audited.

In addition to information on our reported IFRS results, we provide certain information on a non-IFRS, or underlying business performance, basis. Non-IFRS results exclude costs related to the Acquisition of Alcatel Lucent and related integration, goodwill impairment charges, intangible asset amortisation and other purchase price fair value adjustments, restructuring and associated charges, and certain other items that may not be indicative of Nokia's underlying business performance. We report our segment operating profit on a non-IFRS basis, therefore non-IFRS exclusions are reported only at the Nokia consolidated level. We believe that our non-IFRS results provide meaningful supplemental information to both management and investors regarding Nokia's underlying business performance by excluding the items that may not be indicative of Nokia's business operating results. Non-IFRS operating profit is used in determining management remuneration.

The following tables set forth the reconciliation of non-IFRS results to consolidated statement of comprehensive income for the three-month periods ended 31 December 2018 and 2017 and for the years ended 31 December 2018 and 2017, respectively:

Continuing operations Q4/2018	Net sales	Cost of sales	Research and development expenses	Selling, general and administrative expenses	Other income and expenses	Operating profit/(loss)	Financial income and expenses	Income tax (expense)/benefit	Profit/(loss) from continuing operations
EUR million									
(unaudited)									
Non-IFRS	6,872	(3,957)	(1,016)	(758)	(21)	1,120	(110)	(288)	741
Release of acquisition-related fair value adjustments to deferred revenue and inventory	(3)					(3)		1	(2)
Amortisation and depreciation of acquired intangible assets and property, plant and equipment		(1)	(144)	(88)		(234)		59	(175)
Transaction and related costs, including integration costs		(3)		(85)	(5)	(92)		20	(72)
Restructuring and associated charges					(58)	(58)		13	(46)
Product portfolio strategy costs		(134)	(5)		(2)	(142)		29	(112)
Divestment of businesses					(5)	(5)		1	(4)
Fair value changes of legacy IPR fund					(16)	(16)		(9)	(25)
Loss on sale of fixed assets					(5)	(5)		1	(4)
Costs associated with contract exit		(13)		(1)		(14)		3	(11)
Change in financial liability to acquire NSB non-controlling interest							21		21
Deferred tax valuation allowance								(70)	(70)
Deferred tax expense due to tax rate changes								(73)	(73)
Legal entity integration								35	35
Total non-IFRS exclusions	(3)	(151)	(149)	(174)	(90)	(568)	21	10	(537)
Reported	6,869	(4,108)	(1,165)	(933)	(111)	552	(89)	(278)	203

Continuing operations Q4/2017	Net sales	Cost of sales	Research and development expenses	Selling, general and administrative expenses	Other income and expenses	Operating profit/(loss)	Financial income and expenses	Income tax (expense)/benefit	Profit/(loss) from continuing operations
EUR million									
(unaudited)									
Non-IFRS	6,668	(3906)	(1,069)	(768)	78	1,004	(73)	(232)	716
Release of acquisition-related fair value adjustments to deferred revenue and inventory	(16)					(16)		6	(10)
Amortisation and depreciation of acquired intangible assets and property, plant and equipment		(2)	(154)	(95)		(251)		80	(171)
Gain on sale of fixed assets					11	11		(2)	10
Transaction and related costs, including integration costs		(3)	(1)	(67)	9	(62)		14	(48)
Restructuring and associated charges					(77)	(77)		18	(58)
Product portfolio strategy costs	(1)	(148)	(2)		(8)	(159)		34	(125)
Impairment of assets					(32)	(32)		8	(24)
Loss on sale of financial assets							(32)	68	36
Change in financial liability to acquire NSB non-controlling interest							64	(29)	35
Deferred tax expense due to tax rate changes								(738)	(738)
Total non-IFRS exclusions	(17)	(153)	(157)	(163)	(96)	(585)	32	(540)	(1,094)
Reported	6,651	(4,058)	(1,226)	(930)	(18)	419	(41)	(772)	(378)

Continuing operations 2018	Net sales	Cost of sales	Research and development expenses	Selling, general and administrative expenses	Other income and expenses	Operating profit/(loss)	Financial income and expenses	Income tax (expense)/benefit	Profit/(loss) from continuing operations
EUR million					(unaudited)				
Non-IFRS	22,580	(13,545)	(4,014)	(2,896)	55	2,180	(358)	(563)	1,272
Release of acquisition-related fair value adjustments to deferred revenue and inventory	(16)					(16)		5	(11)
Amortisation and depreciation of acquired intangible assets and property, plant and equipment		(6)	(576)	(358)		(940)		222	(717)
Transaction and related costs, including integration costs		(7)	(1)	(207)	(5)	(220)		48	(172)
Restructuring and associated charges				(1)	(319)	(321)		66	(255)
Product portfolio strategy costs		(548)	(28)		(7)	(583)		118	(465)
Impairment of assets					(48)	(48)		11	(37)
Divestment of businesses					(39)	(39)		5	(34)
Fair value changes of legacy IPR fund					(57)	(57)		1	(57)
Loss on sale of fixed assets					(1)	(1)			(1)
Costs associated with contract exit		(13)		(1)		(14)		3	(11)
Change in financial liability to acquire NSB non-controlling interest							6		6
Release of cumulative exchange differences related to abandonment of foreign operations							38	1	39
Deferred tax valuation allowance								(82)	(82)
Operating model integration								13	13
Deferred tax expense due to tax rate changes								(73)	(73)
Legal entity integration								35	35
Total non-IFRS exclusions	(17)	(572)	(606)	(567)	(477)	(2,239)	45	374	(1,821)
Reported	22,563	(14,117)	(4,620)	(3,463)	(422)	(59)	(313)	(189)	(549)

Continuing operations 2017	Net sales	Cost of sales	Research and development expenses	Selling, general and administrative expenses	Other income and expenses	Operating profit/(loss)	Financial income and expenses	Income tax (expense)/benefit	Profit/(loss) from continuing operations
EUR million					(unaudited)				
Non-IFRS	23,223	(13,549)	(4,225)	(3,024)	162	2,587	(280)	(443)	1,875
Release of acquisition-related fair value adjustments to deferred revenue and inventory	(55)					(55)		17	(37)
Amortisation and depreciation of acquired intangible assets and property, plant and equipment		(7)	(633)	(394)		(1,033)		309	(725)
Transaction and related costs, including integration costs		(19)	(2)	(194)	9	(206)		44	(161)
Restructuring and associated charges				(4)	(576)	(579)		140	(439)
Product portfolio strategy costs	(20)	(433)	(57)		(25)	(536)		113	(423)
Impairment of assets					(173)	(173)		8	(165)
Gain on sale of fixed assets					11	11		(2)	10
Loss on sale of financial assets							(32)	68	36
Early redemption cost of debt							(220)	44	(176)
Uncertain tax position in Germany							(69)	(137)	(206)
Change in financial liability to acquire NSB non-controlling interest							64	(29)	35
Deferred tax valuation allowance								(77)	(77)
Operating model integration								(245)	(245)
Deferred tax expense due to tax rate changes								(738)	(738)
Total non-IFRS exclusions	(75)	(460)	(691)	(591)	(753)	(2,571)	(257)	(484)	(3,311)
Reported (audited)	23,147	(14,008)	(4,916)	(3,615)	(591)	16	(537)	(927)	(1,437)

DESCRIPTION OF NOKIA

Company Overview

Nokia creates technology to connect the world. Nokia develops and delivers the industry's only end-to-end portfolio of network equipment, software, services and licensing that is available globally. Nokia's customers include communications service providers whose combined networks support 5.7 billion subscriptions, as well as enterprises in the private and public sector that use our network portfolio to increase productivity and enrich lives.

Through Nokia's research teams, including the world-renowned Nokia Bell Labs, Nokia aims to lead in adopting end-to-end 5G networks that are faster, more secure and capable of revolutionising lives, economies and societies. Nokia adheres to the highest ethical business standards as Nokia creates technology with social purpose, quality and integrity.

We maintain listings on three major securities exchanges. The listing venues for our shares are NASDAQ OMX Helsinki and Euronext Paris, in the form of shares, and the New York Stock Exchange, in the form of American Depositary Shares.

We are a public limited liability company, which is incorporated under the laws of Finland with registration number 0112038-9. We were incorporated on 19 December 1896. Our principal executive office is located at Karaportti 3, FI-02610 Espoo, Finland and our telephone number is +358 (0) 10 44 88 000.

Business Overview

As at the first quarter 2019, Nokia has three reportable segments: (i) Networks, (ii) Nokia Software and (iii) Nokia Technologies. In addition, Nokia will disclose segment level data for Group Common and Other.

In addition, Nokia will provide net sales disclosure for the following businesses: (i) Mobile Access, (ii) Fixed Access, (iii) IP Routing and (iv) Optical Networks, which together comprise the new Networks reportable segment. Nokia will also provide separate net sales disclosure for its different customer types: (i) Communication Service Providers, (ii) Enterprises and (iii) Licensees. Net sales by region will be provided at the Nokia level. To provide a basis for comparison, Nokia will present a recasting of financial results on an unaudited basis for all four quarters of 2018 prior to publishing its Q1 2019 financial report. Note that certain reclassifications will be made in order to reflect the new organisational structure of the company, the most significant of which are: (i) activities related to our cloud core offering will be reclassified from the former Mobile Networks business group and former Global Services reportable segment to the new Nokia Software reportable segment and (ii) activities related to the former Mobile Networks business group and former Global Services reportable segment that are not reclassified to the new Nokia Software reportable segment will be reported together under the new Mobile Access business.

Acquisition of Alcatel Lucent

Combining Nokia with Alcatel Lucent brings together the complementary capabilities of both companies with an end-to-end portfolio of software, services and products, which will be weighted towards next-generation technologies enabling Nokia to provide better solutions to customers and access new opportunities in an expanded, addressable market. Alcatel Lucent provided us with the opportunity to cross-sell and upsell our expanded portfolio, and better leverage our global sales channel. From a geographic perspective, we gained a stronger position in many regions. In North America we have significantly increased our market share; in China we are one of the largest vendors headquartered outside the country; and in Europe, Latin America and the Middle East and Africa we have roughly doubled our size.

The acquisition has given us a total of more than 40,000 research scientists and engineers focused on inventing and deploying technologies that are shaping the future of the connected world: 5G, Cloud-based networks, IP routing, optical fibre transport and data analytics. Our combined research and development ("**R&D**") spend supports near and longer term scientific research at Nokia Bell Labs — building a strong platform for putting us ahead of the competition.

In China, Alcatel Lucent has a joint venture, Alcatel-Lucent Shanghai Bell ("**ASB**"). ASB is a foreign-invested company limited by shares in China, owned by Alcatel Lucent (50% plus one share) and China Huaxin (50%

minus one share). ASB provides end-to-end telecommunication solutions and services for customers in China and worldwide.

In August 2015, Nokia and China Huaxin signed a memorandum of understanding ("**MoU**") confirming their intention to combine Nokia's telecommunications infrastructure businesses in China ("**Nokia China**") and ASB into a new joint venture. On 18 May 2017, definitive agreements for the creation of the Nokia Shanghai Bell joint venture were signed and announced. The closing marked the official start of Nokia Shanghai Bell operations, although ASB and Nokia's China business have effectively operated as one entity since January 2016 when an interim operational agreement was signed.

Sale of the HERE Business

The HERE digital mapping and location services business, an arena we entered in 2006, was a pillar of our operational performance. But in 2015, the Nokia Board of Directors (the "**Board**") held a strategic review of the business in light of plans to purchase Alcatel Lucent. The result of that meeting led us to selling the HERE business in a deal agreed with the Consortium valued at EUR 2.8 billion.

The deal was announced on 3 August 2015 and closed on 4 December 2015.

Recent developments

On 31 January 2019, Sandra Motley, President of Fixed Networks and Tommi Uitto, President of Mobile Networks were appointed to the Nokia Group Leadership Team.

On 31 January 2019, Nokia's Board of Directors approved the Nokia Equity Program for 2019 and the issuance of shares held by the company. To fulfill Nokia's obligations under the 2015, 2016, 2017 and 2018 Restricted Share plans and the 2016 Performance Share plan in respect of shares to be settled in 2019, Nokia's Board of Directors has resolved to issue, without consideration, a maximum of 7.5 million Nokia shares held by the company to settle its commitments to plan participants.

On 4 February 2019, we repaid EUR 231 million in cash at the maturity date of our 6.75% Notes due 2019.

On 14 February 2019, the availability period of our EUR 250 million loan facility with the Nordic Investment Bank (NIB) was extended until August 2019.

Nokia's strategy: Rebalancing for Growth

Nokia's new strategy builds upon its enhanced business portfolio, and focuses on four key priority areas:

- *Lead in high-performance, end-to-end networks with communication service providers:* Use our unparalleled, end-to-end portfolio to sustain our market leadership and profitability.
- *Expand network sales to select vertical markets needing high-performing secure networks:* Broaden our footprint in five select markets: energy, transportation, public sector, technological extra-large enterprises and webscales. We aim to focus our expansion to diverse customer types, channels and solutions while increasing penetration with existing customers.
- *Developing a strong, software business at scale:* Our ambition is to build on our foundation in the telecommunications software market, strengthen our position in telecoms software, and address new customer segments, thereby creating a global software player that has a growth and margin profile like leading software companies. We aim to expand beyond CSPs to also serve fixed, cable customers. We believe we can achieve this by focusing on operations support systems, business support systems and service delivery platforms.
- *Create new business and licensing opportunities in the consumer ecosystem:* Expand successful patent licensing efforts into areas like mobile devices, automobiles and consumer electronics. We are exploring opportunities to license our unique technological capabilities in virtual reality.

Nokia's strategy includes a focus on cost efficiency, quality leadership, sales excellence and focused innovation. Nokia believes it is well-positioned in its growing primary market to capitalise on the upcoming 5G cycle. Nokia is focused on attractive growth opportunities in enterprise markets and their adjacent markets. We operate

a disciplined business model with a strong financial profile. Nokia targets a slightly positive recurring free cash flow generation in 2019 and a clearly positive recurring free cash flow generation in 2020.

Nokia has signed 5G deals with customers in major regions of the world, amounting to over 70 signed agreements. Nokia completed over 50 technical engagements in 2018 and has over 70 technical engagement planned or expected in 2019. 5G grows and contributes to global productivity, Nokia expects that 5G will result in security becoming more non-negotiable and operators profiting more.

Following the acquisition of Alcatel Lucent, Nokia targeted €1.2 billion in cost savings. Additionally, Nokia's €7 billion capital structure optimisation programme successfully completed during 2016 and 2017, and included €3 billion of deleveraging and €4 billion of shareholder distributions.

Nokia aims to maintain total cash of approximately 30% of net sales over time, while maintaining a positive net cash position. Nokia targets 40-70% of non-IFRS diluted earnings per share as dividends on a long-term basis, taking into account Nokia's cash position and expected cash flow generation. From 2018 onwards, Nokia plans to pay dividends in quarterly instalments.

Nokia's debt financing strategy includes a focus on extending short maturities and maintaining smooth maturity breakdowns. Nokia aims to maintain access to both the European and U.S. debt markets. Nokia intends for Nokia Corporation to be the issuer for new bond issues.

Operational Governance and Leadership

We have a strong and experienced leadership team that brings together leaders with many years of experience in telecommunications and technology, finance, sales and operations and various other business disciplines.

The diversity of business backgrounds of the Nokia Group Leadership Team (the "**Group Leadership Team**") members has been integral to the transformation of Nokia into an industry and innovation leader in next-generation technology and services in recent years.

The Group Leadership Team is responsible for the operative management of Nokia, including decisions concerning our strategy and the overall business portfolio. The Chair and members of the Group Leadership Team are appointed by the Board. The Group Leadership Team is chaired by the President and Chief Executive Officer.

The Group Leadership Team consists of the following members:

- Rajeev Suri as President and CEO of Nokia
- Kristian Pullola as Chief Financial Officer
- Joerg Erlemeier as Chief Operating Officer
- Basil Alwan as Co-President of IP/Optical Networks
- Sri Reddy as Co-President of IP/Optical Networks
- Bhaskar Gorti as President of Nokia Software
- Federico Guillén as President of Customer Operations, EMEA & APAC
- Sanjay Goel as President of Global Services
- Maria Varsellona as President of Nokia Technologies and Chief Legal Officer
- Hans-Jürgen Bill as Chief Human Resources Officer
- Kathrin Buvac as President of Nokia Enterprise and Chief Strategy Officer
- Barry French as Chief Marketing Officer
- Marcus Weldon, Corporate Chief Technology Officer and President of Nokia Bell Labs

- Ricky Corker as President of Customer Operations, Americas
- Tommi Uitto as President of Mobile Networks
- Sandra Motley as President of Fixed Networks

Nokia believes it has a strong culture and commitment to disciplined execution. As of 31 December 2018, Nokia employed approximately 103,000 employees globally with approximately 37,000 research and development professionals. Nokia's employees represent 160 nationalities in 130 countries.

Networks Business

Our Networks business in the year ended 31 December 2018 was conducted through five business groups: (i) Mobile Networks, (ii) Fixed Networks, (iii) IP/Optical Networks (iv) Global Services and (v) Nokia Software.

Market Overview

Through our comprehensive end-to-end portfolio of products and services, we are addressing a market that encompasses mobile and fixed network access infrastructure, IP routing and optical networks, mobile and converged core networks as well as software platforms and applications.

We define our primary market as a network and IP infrastructure, software and communications service providers ("**CSPs**") market. We estimate that our primary market was EUR 95 billion in 2018. In addition, we have an adjacent market, including a vertical market that includes our Networks businesses expansion areas in both a customer and a product dimension. The adjacent market includes customer segments such as webscale companies, energy, transport, public sector, and TXLEs—technically sophisticated companies, such as banks, that invest heavily in their own network infrastructures to gain a key competitive advantage. In the product dimension, this includes our traditional networking in addition to new solutions like Nuage Networks, Software-Defined Network ("**SDN**"), Analytics, Internet of Things, and Security. The adjacent market was estimated at EUR 29 billion in 2017.

Demand for our portfolio is driven by exponentially increasing growth in data traffic as people's lives and enterprises become ever more digitalised. This drives the demand for highly reliable networks for massive connectivity.

Nokia estimates its end-to-end product portfolio provides up to 30% lower total cost of ownership, a higher end-to-end service reliability, and approximately 45% faster time to market for new services.

Mobile Networks

Market overview

The primary market for our Mobile Networks (MN) business group includes technologies for mobile access and microwave transport. This encompasses access network technologies ranging from 2G to 5G licensed and unlicensed spectrum for both macro and small cell deployments.

Business overview and organisation

We see a strong initial appetite for 5G in the most progressive and advanced mobile markets and are the only end-to-end mobile network vendor working with the major operators in the US, China, South Korea and Japan. Nokia is rolling out technology today to ensure our customers are ready for commercial launch when 5G devices and spectrum become available.

Practically, in Mobile Networks ("**MN**"), our goal is to be the leader in 5G and provide the best value to our customers as they evolve their networks. In December 2017, the first 3GPP specifications were confirmed including the 5G New Radio ("**NR**") – and since then, the technology and the market have rapidly developed. We continue to develop our 5G portfolio according to the latest 3GPP specifications, and are proud of the number of industry firsts that we have completed on the path to 5G commercialisation. Furthermore, we continue to invest significantly in our ReefShark processor family for baseband and RF with our semiconductor partners. Our customers are moving fast as well, our first commercial 5G radio contract was signed in January 2018 with NTT Docomo in Japan based on 5G NR. As an industry, we have moved quickly from specifications,

to development, to testing, to implementation in real networks. To this end, almost half of our R&D personnel are fully focused on 5G and this will increase as we continue to move personnel on a quarterly, and strategic, basis. As we move from 4G to 5G, we aim to become a champion of continuous integration, continuous delivery and DevOps— an agile software engineering culture and practice that aims at unifying software development (Dev) and software operation (Ops). Our R&D teams now operate under the Scaled Agile Framework ("SAFe") to increase our collaboration and clockspeed – critical elements of our move to a faster mode of operation.

We have a global installed base that provides us with the platform for success in 5G. We have 340 customers in 4G/LTE and all of our current 4G deployments are on the AirScale platform which can be upgraded to 5G. We built our AirScale portfolio, small cells, software and mobile transport solutions to work across all generations of technology – and all relevant spectrum bands – for efficient, simplified and optimised sites for our customers. In radio we build our access portfolio based on one architecture. Future X is the foundation of our reference architecture for all deployment models. The Nokia 5G Future X end-to-end product and services portfolio combines high-capacity 5G New Radio, core and SDN-controlled 'Anyhaul' transport, edge clouds, and software orchestration to provide a complete set of network capabilities for commercial 5G. Our architecture embraces open interfaces and open architectures so our portfolio building blocks interwork with others to enhance efficiency and speed to market. Open source enables us to share and re-use innovation and focus our efforts on things that matter most. We need open interfaces and collaboration to simplify network operations, enable analytics and introduce new services in a more agile way. We cannot do all this alone — we need partners and open ecosystems. We see openness as an important aspect of a successful radio portfolio, matching the needs of our customers.

Fixed Networks

Market overview

The primary market of Fixed Networks is traditional communication service providers. In this market, the shift from copper to fibre has been accelerating in all regions and we see a strong rise of next generation copper and fibre technologies, such as G.fast and XGS-PON (10 gigabit passive optical networks). Virtualisation of fixed access networks is gradually picking up. Complementary technologies such as fixed-wireless access and whole-home Wi-Fi are clearly gaining traction. We have been diversifying our business into new segments, including cable MSOs, energy, government, enterprise and non-traditional players with new business models such as investment firms.

Business overview and organisation

We are diversifying our portfolio with frequent innovation and have one of the industry's most complete portfolios to make our customer's business propositions work. In 2018, the results of a number of our 2017 R&D investments began to pay off as demonstrated by the response on the market. We made several breakthroughs with the first European and Asian customer for Unified Cable Access, and the first contracts for Nokia Wi-Fi, Wireless PON and 4G to-the-home. We also signed five new virtualisation customers for our Software Defined Access solution. We are also diversifying geographically, with breakthroughs with service providers in new and important growth markets such as Japan, South Korea and India.

The Fixed Networks strategy is based on a concept we call the "power of and": fixed and mobile, a gigabit to and into the home; the network and the cloud.

The first pillar of this strategy, fixed and mobile, is about offering the right technology mix to deliver gigabit access to more people, faster. It comprises copper, fibre, coax and fixed wireless access. Nokia is a market leader in copper technologies, such as VDSL2 vectoring, Vplus, and G.fast. We also grew our market share in fibre, with technologies such as GPON, EPON, ethernet point-to-point and 10 gigabit next-generation fibre technologies (with XGS-PON getting significant market traction). We have been enlarging our portfolio with new application-specific integrated circuits ("ASICs") for its leading G.fast and VDSL2 solutions, new options for its copper platforms called Long Reach VDSL2 ("VDSL2-LR"), and new fixed-wireless access products, including FastMile high-gain outdoor receivers and indoor gateways.

For cable operators, Nokia offers the true end-to-end technology capabilities needed to support growing capacity requirements today and into the future. Nokia's Unified Cable Access solution has put an end to the industry debate on R-PHY versus R-MACPHY and offers a full toolbox of fibre, coax and virtualised distributed access

architecture solutions. The Unified Access Solution is now being deployed with the first European customer, after a successful debut in the U.S. last year.

The second pillar, delivering a gigabit to the home, is about ensuring perfect connectivity throughout the home. Fixed Networks has been expanding its business evolving into the whole-home Wi-Fi market with the Nokia Wi-Fi portfolio. Nokia Wi-Fi aims to provide coverage in every corner of the home, supporting communication service providers to offer managed Wi-Fi services and deliver a superior customer experience. Third party tests show superior performance of the Nokia Wi-Fi beacons. The first customers are signed up and have started offering the service to their subscribers.

As networks become ever more complex, given the diversity of technologies and deployment options, the third pillar of our strategy looks at simplifying and automating operations. Virtualisation plays a key role in this. Moving functions to the cloud makes networks easier to manage and scale. With our software defined access Network solution, Nokia takes a pragmatic approach. Our strength and competitive advantage lies in the fact that our virtualisation solution offers a smooth migration path for service providers to gradually evolve their legacy equipment to a software-defined network. We launched our fully open and programmable fixed access network slicing solution, and our Multivendor ONU Connect, the industry's only fully open, virtualised solution that resolves PON interoperability problem (one of the biggest pain points for fibre operators) and signed up five new customers.

Enabled by Nokia's advanced automation and analytics, Nokia launched the Fixed Access Health Index for service providers, a new metric for measuring and benchmarking the quality and performance of fixed access networks.

IP/Optical Networks

Market overview

The primary market for our IP/Optical Networks business group includes routing and optical technologies and related services sold to CSPs. This market includes technologies such as IP aggregation, edge and core routing, mobile packet core, wave division multiplexing, and packet optical transport networking solutions. We also have analytics and end-to-end SDN solutions.

A growing portion of our IP/Optical Networks revenue is derived from adjacent markets, which include customer segments like webscale companies and enterprises. In the enterprise segment, we address verticals like transportation, energy and the public sector ("**TEPS**") and support hyperscale networking for health care, finance and retail enterprises. We address these mission-critical markets with our IP, optical and Nuage Networks portfolios.

Business overview and organisation

For our IP/Optical Networks business group, we provide the highly reliable and massively scalable networks that underpin the digital world's dynamic interconnectivity. Our portfolio of robust and innovative software, systems and services play across multiple domains, from programmable IP and optical transport networks for the smart fabric to analytics and software-defined capabilities for the programmable network operating system and more.

CSP networks are under tremendous pressure from cloud-based applications, ultra-broadband evolution and the Industrial Internet of Things ("**IoT**"). Our IP and optical networking solutions reduce time to market and risk as CSPs launch new services, enabling rapid scaling to meet surging demands with optimal configurations. Our insight-driven network automation solutions further ensure that network services are delivered with consistent quality, reliability and security and that restorative actions are automatically initiated when any parameter varies beyond set limits. These carrier-grade attributes also address the needs of—and are valued by—our webscale, TEPs and TXLE customers.

The IP/Optical Networks product portfolio includes:

- comprehensive IP and optical wide area network ("**WAN**") solutions that dynamically, reliably and securely connect people and things from any universal broadband access modality to any clouds and edge clouds at the lowest cost per bit;

- advanced, cloud-optimised, IP service gateways for residential, business, mobile and Industrial IoT services and unique hybrid solutions enabling a converged services future;
- analytics and carrier SDN solutions for insight-driven network automation that dynamically provision, optimise and assure network services and resources end-to-end, from access to the cloud, and spanning IP and optical technology layers;
- advanced data centre automation and software-defined WAN solutions that configure network connectivity among clouds and to any enterprise branch office with the ease and efficiency of cloud compute using products from our Nuage portfolio; and
- an extensive portfolio of professional services to accelerate the benefits of integrating new technologies to transform networks and leverage the latest innovations in SDN, virtualisation, and programmable IP and optical networks.

Global Services

Market overview

The Global Services business group's market includes network infrastructure and professional services for mobile networks in addition to managed services for the fixed, mobile, applications, IP and optical domains.

Business overview and organisation

The services, solutions and multi-vendor capabilities of our Global Services business group help communications service providers and enterprises in the transport, energy and public sectors navigate through the evolving technology landscape, network complexity and data growth. We work with them to improve end user experience while providing support in day-to-day network planning, implementation, operations and maintenance.

Our Global Services offering allows Nokia to differentiate itself in the 5G market while helping operators prioritise their 5G investments and bring 5G-based services to market faster. Nokia 5G Acceleration Services helps communications service providers to prepare for 5G business cases and assess the technical choices, plan and design the end-to-end deployment and manage the complexity of multi-vendor and legacy networks.

Our other key focus area in Global Services is empowering communications service providers to transform to digital service providers. We are building a new digital architecture for the full life cycle of network design, deployment, operations and technical support – both for legacy and cloud-based networks. We tap into advanced analytics, powered by Nokia AVA, our cognitive service delivery platform, to help boost network performance, operational efficiency and customer experience. Software robots speed up network upgrades, for example, 11000 eNodeB's were upgraded in one night with 100% accuracy for a large tier 1 operator. We also help digital service providers to seize the possibilities of IoT and enter new markets using Nokia Worldwide IoT Network Grid ("**WING**"), which provides seamless connectivity across geographical borders and technologies. We enable our customers to enter new markets rapidly and with low risk through pay-as-you-grow or revenue share models where, for example, WING and Nokia AVA's Analytics Services are provided as-a-Service ("**aaS**").

We have invested heavily in automation, data science and artificial intelligence. Our digital field force is empowered by augmented reality and video support from our Global Delivery Centres. In 2018, we completed the first successful deployments on our crowdsourcing platform. Our engineers process 6 million trouble tickets each year using artificial intelligence and help ensure the best experience for more than a billion subscribers worldwide.

Global Services introduced a new organisational structure in July 2018 to accelerate its strategy execution, drive efficiencies in the established base businesses, such as network implementation and care, and capture new business opportunities, for example in analytics and Industrial IoT.

Nokia Software

Market overview

As service providers and large enterprises seek to modernise their businesses by leveraging 5G, they are propelling a clear growth market in telecommunications. The Nokia Software portfolio is designed to help customers accelerate their digital reinvention and power the Fourth Industrial Revolution.

Our network-agnostic and cloud-native software solutions:

- enrich and monetise digital experiences;
- fuel operations through automation and intelligence;
- increase network agility and advanced functionality; and
- provide innovative emerging technologies.

In this business space we sell primarily to a CSP market and Nokia Software continues to expand into new vertical markets and emerging technologies.

Business overview and organisation

The Nokia Software business has an important edge over traditional software vendors. Rooted in our deep understanding of our customers' networks, we bridge the gap between their business and their network with a level of intelligence never seen before in our industry. Our mission is to help our customers operate in digital time – modernising the slow, siloed, and monolithic systems that weigh them down today with more agile, intelligent and lightweight solutions. By rebuilding our software applications on a common software foundation, we are increasing innovation velocity while at the same time ensuring that our products are easier to deploy, use and maintain. Our modern software solutions are based on five key principles: extreme automation, actionable insight, high trust, cloud-native, and multi-vendor/multi-network capabilities.

The Nokia Software portfolio contains:

- Digital experience and monetisation: enables service providers to identify and act upon the small windows of digital time where the opportunities to enrich and monetise are the most impactful. Our portfolio includes solutions for omni-channel customer engagement, customer experience network analytics, fixed and mobile device management, and policy and charging. Today we have more than 400 digital experience and monetisation customers, we are the market leader in both fixed and mobile device management, and we have the industry's first cloud-native 5G charging solutions.
- Digital operations: helps service providers simplify, automate and optimise their service and network operations. Our portfolio includes solutions for service fulfilment, assurance, orchestration, and network management. We have more than 500 digital operations customers globally, hold leading market positions in NFV MANO and service assurance and have been recognised as the "one-stop-shop for Operations Support Systems" by Analysys Mason.
- Digital networks: software that creates an elastic, programmable, and secure cloud-based foundation to address performance and reliability requirements. Our products include one of the industry's first cloud-native session border controllers, a portfolio of active security solutions, and market-leading mobile network management solutions. In 2019, Nokia's cloud core portfolio of products and services will be included in this portfolio in an effort to improve customer focus.

Nokia Enterprise

Market overview

In 2018, Nokia successfully addressed the enterprise customer segment. Recognising the growth potential of our business with this segment, we created a new business group, Nokia Enterprise, effective 1 January 2019. Our Enterprise business group addresses the mission- and business-critical networking requirements of asset-intensive industries such as transportation, energy, manufacturing and logistics – as well as governments and smart cities. The company also supports hyperscale networking for health care, finance and retail enterprises and webscale players.

Business overview and organisation

Nokia has a strong track record of helping enterprises modernise the communications networks they rely on to supervise and manage a range of operations, employing technologies across the IP, optical, microwave, fixed and mobile access domains. To date, we have deployed more than 1,000 such networks across our key target vertical markets.

Today, a range of enterprises are looking to harness major technology shifts in areas such as ubiquitous connectivity, analytics, cloud and the Industrial IoT to digitalise and automate critical processes and drive massive gains in business and industrial productivity.

Enterprises can benefit from digitalisation, better asset management, improved processes, deeper levels of network security and new business models that will arise from pervasive connectivity.

High-performance networking is at the nexus of these trends, addressing the demand for pervasive connectivity with smart network infrastructure (increasingly wireless) that seamlessly connects everyone and everything, everywhere. Our proven enterprise portfolio provides the foundation for more than 1,000 mission-critical networks, incorporating technologies from across Nokia's Access, IP/Optical Networks, Software and Global Services portfolios, coupled with enterprise-specific products for digital automation, analytics and IoT.

This end-to-end portfolio supports the Future X for industries network architecture developed Nokia Bell Labs, a blueprint for future industrial networks that intelligently combines high-performance, ubiquitous access and intelligent IP/optical networks with agile multi cloud enabled solutions, analytics-driven digital value platforms and business applications – with security capabilities embedded at all levels - to support industrial automation.

We are also driving the adoption of multi-cloud, IoT and automation with strategic investments in emerging technologies such as SDN, data centre and software-defined wide area networking ("**SD-WAN**") applications and more. Notable developments in 2018 include; the launch of the Nokia Digital Automation Cloud - our plug-and-play private wireless connectivity and automation platform designed for Industrial IoT applications - and the combination of Nokia's 2017 acquisition of SpaceTime Insight with the company's home-grown scene analytics innovations to support industrial and logistics spanning asset management and utilisation to predictive maintenance.

The Enterprise business group targets a select group of industries, which includes the following:

Transportation, energy and public sector (TEPS)

Our networks are the foundation for next-generation smart grids that effectively match energy generation with demand and help power utilities explore new energy distribution models. We provide oil, gas and mining companies with private LTE networks to bring new levels of performance to a range of mission-critical operations, protecting lives and increasing productivity.

For railway, highway, aviation and maritime industries we build operational technology networks that support railway signalling, airport communications, air traffic control, digital signage and toll collection and on-board broadband and infotainment.

Nokia helps first responders save lives, supporting traditional two-way radio communications, while laying the foundation for advanced control centres and the data-rich mobile broadband services to enhance situational awareness and operational intelligence.

As cities seek to become smarter, Nokia offers a platform-based approach to support the connectivity, data sharing and usage control capabilities needed for smarter parking, lighting, traffic management and other municipal services. And we are partnering with governments and new network providers to bring broadband to remote, under-served communities.

Hyperscale enterprise

Nokia offers hyperscale enterprises a comprehensive solution set to help them meet their data needs while addressing stringent compliance, privacy and security requirements. Nokia solutions enable the connection of enterprise branches to clouds, both public and private, to enable their users to use their business applications from anywhere, over any broadband network. Nokia delivers IP, optical and SDN solutions to enable this connectivity.

Webscale companies

These are a select group of enterprises that handle millions of transactions per day, demand hyper-efficiency in content delivery and support exceptional online experiences. We enable these companies to intelligently and instantaneously scale their services through automated cloud-based global service delivery platforms with robust cybersecurity features by leveraging our intelligent IP and optical networking solutions.

Nokia Bell Labs

Nokia Bell Labs is the world-renowned industrial research and innovation arm of Nokia. Over its 93-year history, Nokia Bell Labs has invented many of the foundational technologies that underpin information and communications networks and all digital devices and systems.

This research has resulted in nine Nobel Prizes (receiving the ninth in 2018), two Turing Awards, three Japan Prizes and a plethora of National Medals of Science and Engineering, as well as an Oscar, two Grammys and an Emmy for technical innovation. Nokia Bell Labs continues to conduct disruptive research focused on solving the challenges of the new digital era, defined by the contextual connection and interaction of everything and everyone.

With Nokia Bell Labs, we search for the fundamental limits of what is possible, rather than being constrained by the current state of the art.

We look to the future to understand essential human needs and the potential barriers to enabling this new human existence. We then use our unique diversity of research intellects, disciplines and perspectives to solve the key complex problems by discovering or inventing disruptive innovations that have the power to enable new economic capabilities, new societal behaviours, new business models and new types of services—in other words, to drive human and technological revolutions.

Our research is focused on key scientific, technological, engineering or mathematical areas that require 10 times or more improvement in one or more dimensions. We then combine these areas of research into the Future X network architecture, which brings these disruptive research elements together into industry-redefining solutions. These innovations are brought to market through our business groups or through technology and patent licensing. Nokia Bell Labs also engages directly with the market and customers through our consulting practice to help define the path to the future network with business model innovation and the optimum technoeconomics.

This model of defining future needs and inventing game-changing solutions to critical problems while advising the market on the path forward has been the constant mission of Nokia Bell Labs.

Nokia Bell Labs is structured into three functional areas to optimise how we create a foundation to disrupt and transform the future:

- (1) The Chief Technology Office defines Nokia's technological and architectural vision and drives industry standards and initiatives.
- (2) Nokia Bell Labs Research understands key challenges in the future vision and invents solutions that are 10 times better than what is currently possible.
- (3) Bell Labs Consulting advises the industry on our economics of the vision and how to efficiently achieve this future goal from the current starting point.

Sales and Marketing

Nokia considers its customers in two distinct markets. Our "primary addressable market" consists of CSPs. Our current enterprise business is small in comparison with our operator business but growing fast.

The Customer Operations ("CO") organisations are the primary interface with our CSP customers. The CO Americas organisation focuses on our markets in North America and Latin America, while the CO EMEA &

APAC organisation is responsible for our Asia Pacific & Japan, Europe, Greater China, India and Middle East markets.

The CO teams have a comprehensive global presence (active in approximately 130 countries). At the same time, the CO structure ensures that our customers benefit from dedicated management attention and from our teams' deep understanding of local markets. This approach enables Nokia to maintain strong customer intimacy.

The priority of the CO organisations is to serve our customers. And, since 2018, the CO organisations have been responsible for delivery as well as sales, ensuring strong alignment between our customer-facing teams in each account. Our "One CDM" (customer delivery manager) model provides a strong counterpart to our customer team setup, ensuring that customers have a seamless experience when working with Nokia. This is particularly important given the value our customers put on Nokia's end-to-end approach, which can provide a solution to a customer need based on portfolio elements from several of our business groups.

CO also works very closely with our sales and delivery colleagues in Nokia Software to ensure the right level of customer focus and expertise in this crucial area, and with our colleagues in Nokia Enterprise to make sure that we are efficient in developing and selling the solutions that will benefit both our CSP and enterprise customers. We strongly support our "Service-Provider-as-a-Partner" ("**SPaaP**") sales approach, in which we work in partnership with operators to address customers in the enterprise space. This model is proving to be an extremely successful route to market for CSPs as well as for Nokia.

Research and Development

We are one of the industry's largest R&D investors in information communication technology and we drive innovation across telecommunications and vertical industries to meet the needs of a digitally connected world. Product development is continually underway to meet the high programmability, agility and efficiency requirements of the next-generation software-defined networks that will accommodate mobile and fixed broadband, IoT, intelligent analytics and automation, which are used to forge new human possibilities.

We have a global network of R&D centres, each with individual technology and competence specialties. The main R&D centres are located in Belgium, Canada, China, Finland, France, Germany, Greece, Hungary, India, Italy, Japan, Poland, the Philippines, Portugal, Romania, the United Kingdom and the United States. We believe that the geographical diversity of our R&D network is an important competitive advantage for us. In addition, the ecosystem around each R&D center helps us to connect with experts on a global scale, and our R&D network is further complemented by cooperation with universities and other research facilities.

Nokia Technologies

Market overview

Following the sale of the Digital Health business, Nokia Technologies has exited the direct-to-consumer market and is now focused on licensing valuable Nokia intellectual property, including patents, technologies and the Nokia brand, building on continuing Nokia innovation and decades of R&D leadership in technologies used in virtually all connected devices used today.

Business overview and organisation

Following the sale of our Digital Health business in 2018, Nokia Technologies is now focused on licensing.

- Our Patent Business continues to grow its successful patent licensing and monetisation activities, which drive most of Nokia Technologies' net sales.
- Our Technology Licensing business is focused on licensing innovative spatial audiovisual technologies to smartphone and camera manufacturers.
- Our Brand Partnerships business works with our exclusive licensee for the Nokia brand for phones and tablets, HMD Global, which has launched 12 new Android smartphones and five new feature phones during 2018.

In addition, our Intellectual Property organisation manages the Nokia patent portfolio, working with all Nokia businesses.

Sales and marketing

Our Patent Business is responsible for monetising our intellectual property by making our innovations available to the markets through licensing activities and transactions. Nokia Technologies currently has more than half of the mobile phone market by volume under license.

Nokia Technologies also continues to engage in global sales and marketing activities supporting the technology licensing of our innovative audiovisual solutions such as OZO Audio.

Nokia Technologies sees further opportunities in licensing its proprietary technologies, intellectual property and brand assets into further markets such as Internet of Things and related industries.

Research and development

The applied nature of our R&D in the Finland-based Media Technologies Research Lab in Nokia Technologies has resulted in various relevant and valuable inventions in areas that we believe are important for emerging consumer experiences, such as audio standardisation.

Nokia Technologies has R&D centres in Finland and France.

Patents and Licenses

For more than 20 years, we have defined many of the fundamental technologies used in virtually all mobile devices and taken a leadership role in standards setting. As a result, we own a leading share of essential patents for GSM, 3G radio and 4G LTE technologies. We are a leading contributor to the development of 5G standards and declared more than 1,400 patent families for the standard during 2018 with more expected to follow. We expect to also have a leading position in 5G standards essential patents.

As part of our active portfolio management approach, we are continuously evaluating our collective assets and taking actions to optimise the size of our overall portfolio while preserving the high quality of our patents. At the end of 2018, our portfolio stands at around 20,000 patent families, built on combined R&D investments of more than EUR 126 billion over the last two decades.

We continue to refresh our portfolio from R&D activities across all Nokia businesses, filing patent applications on more than 1,300 new inventions in 2018.

Group Common and Other

Group Common and Other includes Alcatel-Lucent Submarine Networks and Radio Frequency Systems, both of which are being managed as separate entities. In addition, Group Common and Other include Nokia Bell Labs' operating expenses, as well as certain corporate-level and centrally managed operating expenses.

Discontinued Operations

HERE business

We sold our HERE digital mapping and location services business to a German automotive industry consortium comprised of AUDI AG, BMW Group and Daimler AG, that was completed on 4 December 2015 (the "**Sale of HERE Business**").

The transaction, originally announced on 3 August 2015, valued HERE at an enterprise value of EUR 2.8 billion, subject to certain purchase price adjustments. We received net proceeds from the transaction of EUR 2.55 billion at the closing of the transaction. We recorded a gain on the Sale of the HERE Business, including a related release of cumulative foreign exchange translation differences of EUR 1.2 billion, in the year ended 31 December 2015.

Devices & Services Business

We sold substantially all of our Devices & Services business to Microsoft in a transaction that was completed on 25 April 2014 (the "**Sale of the D&S Business**"). We granted Microsoft a ten-year non-exclusive license to our patents and patent applications. The announced purchase price of the transaction was EUR 5.44 billion, of which EUR 3.79 billion related to the purchase of substantially all of the Devices & Services business, and EUR 1.65 billion to the ten-year mutual patent license agreement and the option to extend this agreement into perpetuity. Of the Devices & Services-related assets, our former CTO organisation and our patent portfolio remained within the Nokia Group, and are now part of the Nokia Technologies business group.

Significant subsidiaries

The following is a list of Nokia's significant subsidiaries at 31 December 2018.

<u>Continuing Nokia Group Companies</u>	<u>Country of Incorporation</u>	<u>Nokia Corporation Ownership Interest</u>	<u>Nokia Voting Interest</u>
Nokia Solutions and Networks B.V.	The Netherlands	—	100%
Nokia Solutions and Networks Oy	Finland	100.0%	100%
Nokia of America Corporation	USA	—	100%
Nokia Solutions and Networks India Private Limited	India	—	100%
Nokia Technologies Oy	Finland	100%	100%
Alcatel-Lucent Participations SA	France	—	100%
Nokia Canada Inc.....	Canada	—	100%
Nokia Shanghai Bell Co., Ltd.....	China	—	50% plus one share ⁽¹⁾
Nokia Solutions and Networks Branch Operations Oy.....	Finland	—	100%
Nokia Solutions and Networks Japan G.K.....	Japan	—	100%
Alcatel-Lucent Submarine Networks SAS.....	France	—	100%
Nokia Spain, S.A.....	Spain	—	100%
Alcatel-Lucent Italia S.p.A. ⁽²⁾	Italy	—	100%
Alcatel-Lucent SAS	France	—	100%
Nokia UK Limited.	United Kingdom	—	100%
Nokia Solutions and Networks GmbH & Co. KG	Germany	—	100%
Alcatel-Lucent International SA.....	France	—	100%
Nokia Services Limited	Australia	—	100%
PT Nokia Solutions and Networks Indonesia.....	Indonesia	—	100%
Alcatel-Lucent Brasil Telecomunicações Ltda	Brazil	—	100%
Nokia Solutions and Networks do Brasil Telecomunicações Ltda.....	Brazil	—	100%

- (1) Nokia Shanghai Bell Co., Ltd is the parent company of the Nokia Shanghai Bell joint venture of which the Group owns 50% plus one share with China Huaxin, an entity controlled by the Chinese government, holding the remaining ownership interests.
- (2) Alcatel-Lucent Italia S.p.A. merged into Nokia Solutions and Networks Italia S.p.A., effective 1 January 2019.

Shareholders

To our knowledge, Nokia is not directly or indirectly owned or controlled by any other corporation or any government, and there are no arrangements that may result in a change of control of Nokia.

Directors, Senior Management and Employees

Pursuant to the provisions of the Finnish Limited Liability 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 Chief Executive Officer (CEO) and the Nokia Group Leadership Team, chaired by the President and CEO.

Board of Directors

The members of the Board were elected at the Annual General Meeting on 30 May 2018.

The Chairman and Vice Chairman, as well as the Chairmen and members of the committees of the Board, were elected from among the Board members and among the independent directors of the Board, respectively.

The members of the Board are elected on an annual basis for a one-year term ending at the close of the next Annual General Meeting. The election is made by a simple majority of the shareholders' votes cast at the Annual General Meeting.

The current members of the Board of Directors and its committees are set forth below.

<p>Chair Risto Siilasmaa, b. 1966</p>	<p><i>Chair of the Board of Directors of Nokia Corporation. Board member since 2008. Chair since 2012. Chair of the Corporate Governance and Nomination Committee. Member of the Technology Committee.</i></p>
	<p>Master of Science (Eng.), Helsinki University of Technology, Finland.</p>
	<p>President and CEO of F-Secure Corporation 1988-2006.</p>
	<p>Chairman of the Board of Directors of F-Secure Corporation. Chairman of the Board of Directors of The Federation of Finnish Technology Industries. Vice Chairman of the Board of Directors of The Confederation of Finnish Industries (EK). Member of European Roundtable of Industrialists.</p>
	<p>Chairman of the Board of Directors of Elisa Corporation 2008-2012.</p>
<p>Vice Chair Olivier Piou, b. 1958</p>	<p><i>Vice Chair of the Board of Directors of Nokia Corporation. Board member and Vice Chair since 2016. Member of the Personnel Committee and the Technology Committee.</i></p>
	<p>Engineer, École Centrale de Lyon, France.</p>
	<p>Chief Executive Officer of Gemalto N.V. 2006-2016. Chief Executive Officer of Axalto N.V. 2004-2006. With Schlumberger 1981-2004, includes numerous management positions in the areas of technology, marketing and operations, in France and the United States.</p>
	<p>Member of the Board of Directors of Gemalto N.V. Member of the</p>

Board of Directors of the PESH Foundation.

Member of the Board of Directors of Alcatel-Lucent SA 2008–2016.

Sari Baldauf, b. 1955

Member of the Board of Directors of Nokia Corporation since 2018. Member of the Personnel Committee and the Corporate Governance and Nomination Committee.

Non-executive director.

Master of Business Administration, Helsinki School of Economics and Business Administration. Bachelor of Science, Helsinki School of Economics and Business Administration. Honorary doctorates in Technology (Helsinki University of Technology) and Business Administration (Turku School of Economics and Business Administration and Aalto University School of Business).

Executive Vice President and General Manager, Networks Business Group, Nokia, 1998–2005. Various executive positions at Nokia in Finland and the United States 1983-1998.

Member of the Supervisory Board and Member of the Nomination Committee of Daimler AG. Member of the Board of Directors of Aalto University. Chair of the Vexve Holding Oy. Senior Advisor of DevCo Partners Oy. Member of the Supervisory Board of Deutsche Telekom AG 2012 until 17 May 2018. Chair of the Board of Directors of Fortum Oyj 2011-2018. Member of the Board of Directors of Akzo Nobel 2012–2017. Member of the Board of Directors of F-Secure Oyj 2005-2014. Member of the Board of Directors of Hewlett-Packard Corporation 2006-2012.

Bruce Brown, b. 1958

Member of the Board of Directors of Nokia Corporation since 2012. Chair of the Personnel Committee. Member of the Corporate Governance and Nomination Committee and the Technology Committee.

M.B.A. (Marketing and Finance), Xavier University, the United States. B.S. (Chemical Engineering), Polytechnic Institute of New York University, the United States.

Retired from The Procter & Gamble Company in 2014. Chief Technology Officer of The Procter & Gamble Company 2008–2014. Various executive and managerial positions in Baby Care, Feminine Care, and Beauty Care units of The Procter & Gamble Company since 1980 in the United States, Germany and Japan.

Member of the Board of Directors of Agency for Science, Technology & Research (A*STAR) in Singapore. Member of the Board of Directors, the Audit Committee and the Nominating and Corporate Governance Committee of P.H. Glatfelter Company. Member of the Board of Directors, the Audit Committee and the Compensation Committee of Medpace, Inc.

Jeanette Horan, b. 1955

Member of the Board of Directors of Nokia Corporation since 2017. Member of the Audit Committee and Technology Committee.

MBA, Business Administration and Management, Boston University, the United States. BSc, Mathematics, University of London, United Kingdom.

Various executive and managerial positions in IBM 1998-2015. Vice President of Digital Equipment Corporation 1994-1998. Vice President, Development, of Open Software Foundation 1989-1994.

Member of the Supervisory Board at Wolters Kluwer, and the Chair of the Remuneration Committee. Member of the Board of Advisors at Jane Doe No More, a non-profit organisation.

Member of the Board of Advisors of Cyberreason 2017-2018. Member of the Board of Directors of West Corporation 2016-2017. Member of the Board of Directors of Microvision 2006-2017.

Louis R. Hughes, b. 1949

Member of the Board of Directors of Nokia Corporation since 2016. Member of the Audit Committee and the Technology Committee.

Master's Degree in Business Administration, Harvard University, Graduate School of Business, the United States. Bachelor of Mechanical Engineering, General Motors Institute, now Kettering University, the United States.

President & Chief Operating Officer of Lockheed Martin in 2000. Executive Vice President of General Motors Corporation 1992–2000. President of General Motors International Operations 1992–1998. President of General Motors Europe 1992–1994.

Chairman of InZero Systems (formerly GBS Laboratories) (USA). Independent Director and member of the Audit Committee of AkzoNobel. Independent Director and Chairman of the Audit, Finance and Compliance Committee of ABB. Executive advisor partner of Wind Point Partners.

Member of the Board of Directors of Alcatel-Lucent SA 2008–2016.

Edward Kozel, b. 1955

Member of the Board of Directors of Nokia Corporation since 2017. Chair of the Technology Committee. Member of the Audit Committee.

Degree in Electrical Engineering and Computer Science, University of California, the United States.

President and CEO of Range Networks 2013-2014, Owner of Open Range 2000-2013, Chief Technology and Innovation Officer and member of the Board of Management of Deutsche Telecom 2010-2012, CEO of Skyrider 2006-2008, Managing Director of Integrated Finance 2005-2006, Senior Vice President, Business development and Chief Technology Officer and Board Member of Cisco 1989-2001.

Various Board Memberships in 1999–2009.

Elizabeth Nelson, b. 1960

Member of the Board of Directors of Nokia Corporation since 2012. Chair of the Audit Committee and the Personnel Committee.

M.B.A. (Finance), The Wharton School, University of Pennsylvania, the United States. B.S. (Foreign Service), Georgetown University, the United States.

Executive Vice President and Chief Financial Officer, Macromedia, Inc. 1997–2005. Vice President, Corporate Development, Macromedia, Inc. 1996–1997. Various roles in Corporate

Development and International Finance, Hewlett-Packard Company 1988–1996.

Chairman of the Board of Directors of DAI. Independent Lead Director and Chair of the Audit Committee of Zendesk Inc.

Member of the Board of Directors of Pandora Media 2013-2017. Member of the Boards of Directors of Brightcove, Inc. 2010–2014, SuccessFactors, Inc. 2007–2012 and Ancestry.com, Inc. 2009–2012.

Carla Smits-Nusteling, b. 1966

Member of the Board of Directors of Nokia Corporation since 2016. Chair of the Audit Committee and member of the Corporate Governance and Nomination Committee.

Master's Degree in Business Economics, Erasmus University Rotterdam, the Netherlands. Executive Master of Finance and Control, Vrije University Amsterdam, the Netherlands.

Member of the Board of Directors and Chief Financial Officer of KPN 2009-2012. Various financial positions in KPN 2000-2009. Various financial and operational positions in TNT/PTT Post 1990-2000.

Member of the Supervisory Board since 2013 and Chair of the Audit Committee of ASML. Member of the Board of Directors since 2013 and Chair of the Audit Committee and member of the Remuneration Committee of TELE2 AB. Member of the Management Board of the Unilever Trust Office since 2015. Lay Judge in the Enterprise Court of the Amsterdam Court of Appeal since 2015.

Kari Stadigh, b. 1955

Group CEO and President of Sampo plc. Member of the Board of Directors of Nokia Corporation since 2011. Member of the Personnel Committee. Member of the Corporate Governance and Nomination Committee.

Master of Science (Eng.), Helsinki University of Technology, Finland. Bachelor of Business Administration, Hanken School of Economics, Helsinki, Finland.

Deputy CEO of Sampo plc 2001–2009. President of Sampo Life Insurance Company Limited 1999–2000. President of Nova Life Insurance Company Ltd 1996–1998. President and COO of Jaakko Pöyry Group 1991–1996.

Member of the Board of Directors and Chair of the Nomination Committee of Nordea Bank AB (publ). Chairman of the Board of Directors of If P&C Insurance Holding Ltd (publ) and Mandatum Life Insurance Company Limited. Member of the Board of Directors of Finance Finland (previously Federation of Finnish Financial Services). Member of the Board of Directors of Waypoint Capital Group Holdings SA. Member of the Board of Directors of Nordea Bank AB (publ) 2010-2018. Chair of the Board Risk Committee (BRIC) of Nordea Bank AB (publ) 2011-2018. Member of the Board of Directors of Niilo Helanderin Säätiö 2005-2018.

The business address of the persons mentioned above is Karaportti 3, FI-02610 Espoo, Finland.

The current members of the Board are all non-executive. For the term of the Board that began at the Annual General Meeting on 30 May 2018, all Board member candidates were determined to be independent under the

Finnish corporate governance standards and the rules of the NYSE and, accordingly, there are no conflicts of interest between any duties to Nokia of the Directors and their private interests or duties.

Nokia Group Leadership Team

According to our Articles of Association, the Nokia Group Leadership Team is responsible for the operative management of the Company. The Chairman and members of the Nokia Group Leadership Team are appointed by the Board. Only the Chairman of the Nokia Group Leadership Team, the President and CEO, can be a member of both the Board and the Nokia Group Leadership Team.

The members of the Nokia Group Leadership Team are set forth below.

Rajeev Suri, b. 1967

President and Chief Executive Officer of Nokia. Nokia Group Leadership Team member and Chairman since 2014. Joined Nokia in 1995.

Bachelor of Engineering (Electronics and Communications), Manipal Institute of Technology, Mangalore University, Karnataka, India.

CEO, Nokia Solutions and Networks ("NSN") 2009-2014. Head of Services, NSN, 2007-2009. Head of Asia Pacific, NSN, April 2007-August 2007. Senior Vice President, Nokia Networks Asia Pacific, 2005-2007. Vice President, Hutchison Customer Business Team, Nokia Networks, 2004-2005. General Manager, Business Development, Nokia Networks Asia Pacific, Nokia Networks 2003. Sales Director—BT, O2 and Hutchison Global Customers, Nokia Networks, 2002. Director, Technology and Applications, BT Global Customer, Nokia Networks, 2000-2001. Head of Global Competitive Intelligence, Nokia Networks, 1999-2000. Head of Product Competence Center, Nokia Networks South Asia, 1997-1999. System Marketing Manager, Cellular Transmission, Nokia Networks India, 1995-1997. Head of Group Procurement, imports and special projects, Churchgate Group, Nigeria, 1993-1995. National Account Manager—Transmission/Manager—Strategic Planning, ICL India (ICIM), 1990-1993. Production Engineer, Calcom Electronics, 1989.

Commissioner of the United Nations Broadband Commission. Member of the Digital Communications Industry steering committee and the stewardship board of the Health and Healthcare System Initiative at the World Economic Forum.

Kristian Pullola, b. 1973

Chief Financial Officer. Nokia Group Leadership Team member since 2017. Joined Nokia 1999.

Master of Science (Economics), the Hanken School of Economics, Helsinki, Finland. Finance diploma from the Stockholm School of Economics, Stockholm, Sweden.

Senior Vice President, Corporate Controller, Nokia 2011-2016. Vice President, Treasury & Investor Relations, Nokia 2009-2011. Vice President, Corporate Treasurer, Nokia 2006-2008. Director, Treasury Finance & Control, Nokia 2003-2006. Various roles in Nokia Treasury 1999-2003. Associate, Citibank International 1998-1999.

Member of the Board of Directors of Ilmarinen Mutual Pension Insurance Company.

Joerg Erlemeier, b. 1965

Chief Operating Officer. Nokia Group Leadership Team member

since 2017. Joined Nokia 1994.

Bachelor of Engineering (Electronics and Telecommunications) from Fachhochschule Aachen, Germany.

Senior Vice President, Integration, Nokia, 2015. Vice President, Global Services, Europe, Nokia, 2015. Head of Delivery, North America market, Nokia, 2013/14. Head of Program Management Office, Nokia Siemens Networks, 2012. Head of Middle East & Africa, Nokia Siemens Networks, 2009 – 2011. Held several executive level positions in Nokia/Nokia Siemens Networks, 1994 – 2009.

Basil Alwan, b. 1962

Co-president of IP/Optical Networks. Nokia Group Leadership Team member since 2016. Joined Nokia in 2016.

Bachelor in Computer Engineering, University of Illinois at Urbana-Champaign, the United States.

Previously President of IP Routing and Transport, Alcatel-Lucent 2012–2016. President of IP Division, Alcatel Lucent 2003–2012. Founder, President and CEO, TiMetra Networks 2000–2003. Vice President and General Manager, Bay Networks (acquired by Nortel) Enterprise Products Division (EPD) 1997–2000. Vice President of Product Management and Marketing, Rapid City Communications 1996–1997.

Sri Reddy, b. 1964

Co-president of IP/Optical Networks. Nokia Group Leadership Team member since 2018. Joined Nokia in 2016.

Bachelor of Electrical Engineering degree from Jawaharlal Nehru Technological University, a Master of Electrical Engineering and Computer Science from Oregon State University, and a Master of Business Administration from Santa Clara University.

Previously Senior Vice President and General Manager, IP Routing and Packet Core Business Unit, Nokia, 2015-2018. Vice President, Engineering, IP Routing, Alcatel-Lucent, 2003-2015. Vice President, Engineering, Timetra, 2000-2003. Vice President, Engineering, Bay Networks, 1991-1999.

Bhaskar Gorti, b. 1966

President of Nokia Software. Nokia Group Leadership Team member since 2016. Joined Nokia in 2016.

Master of Science graduate degree in Electrical Engineering from Virginia Tech, USA. Bachelor's in Technology, Electrical Engineering, from National Institute of Technology, Warangal, India.

Previously President of IP Platforms, Alcatel-Lucent. Senior Vice President and General Manager, Communications Global Business Unit, Oracle 2006– January 2015. Senior Vice President, Portal Software 2002–2006.

Federico Guillén, b. 1963

President of Customer Operations, EMEA & Asia. Nokia Group Leadership Team member since 2016. Joined Nokia in 2016.

Degree in Telecommunications Engineering, ETSIT at Universidad Politécnica de Madrid, Spain. Master's degree in Switching & Communication Architectures, ETSIT at Universidad Politécnica de Madrid, Spain. Master's Degree in International Management, ESC

Lyon and Alcatel, France.

President of Fixed Networks, Alcatel Lucent 2013–2018. President and CEO of Alcatel-Lucent Spain & Global Account Manager Telefonica, Alcatel Lucent 2009–2013. Vice President Sales of Vertical Market Sales in Western Europe, Alcatel Lucent 2009. Head of Regional Support Centre within Alcatel Lucent's Fixed Access Division for South Europe, MEA, India and CALA 2007–2009. CEO, Alcatel Mexico & Global Account Manager, Telmex 2003–2007. Various R&D, Portfolio and Sales Management Positions, Telettra and then Alcatel in Spain, Belgium and the United States. 1989–2003.

Sanjay Goel, b. 1967

President of Global Services. Nokia Group Leadership Team member since 2018. Joined Nokia Networks in 2001.

Bachelor's Degree in Engineering in Electronics and Communications from Manipal Institute of Technology, Karnataka, India.

Previously, Senior Vice President, Global Services Sales, Global Services, Nokia 2015-2018. Vice President, Services, Customer Operations, Asia, Middle East & Africa, Nokia Networks 2012 – 2015. Head of Global Services, Asia Pacific & Japan, Nokia Siemens Networks 2009-2012. Head of Managed Services, Asia Pacific (including India & Japan), Nokia Siemens Networks 2007-2009. Lead Sales Director, Hutchison Global CBT, Nokia Networks 2006 – 2007. Account Director, Hutchison India CT, Nokia Networks 2004-2006. Account Manager Roles, Nokia Networks 2001 – 2004. Country Manager, Storage System Division, Enterprise Systems Group, IBM India 2000 – 2001. Dy General Manager, Industrial Sector, IBM India 1999 – 2000. Business Manager, IBM India 1996 – 1999. Engineering Roles, Industrial Process Automation, Asea Brown Boveri Ltd 1990 – 1996.

Maria Varsellona, b. 1970

President of Nokia Technologies and Chief Legal Officer. Nokia Group Leadership Team member since 2016. Joined NSN in 2013. Law Degree from University of Palermo (Juris Doctor), Italy.

Executive Vice President and Chief Legal Officer, Nokia 2014–2016. General Counsel, NSN 2013–2014. Tetra Pak Group General Counsel, Tetra Laval Group 2011–2013. Sidel Group General Counsel, Tetra Laval Group 2009–2011. Senior Counsel Commercial Operations and Global Services, GE Oil & Gas 2006–2009. Senior Counsel Europe, Hertz Europe 2005–2006. Senior Counsel Global Services, GE Oil & Gas 2001–2005. Lawyer, Pini Birmingham & Partners 1998–2001. Lawyer, Greco Law Firm 1994–1998.

Member of the Board of Directors of Nordea Bank AB (publ). Member of the Board of Directors of Alcatel Lucent SA 2016.

Hans-Jürgen Bill, b. 1960

Chief Human Resources Officer. Nokia Group Leadership Team member since 2016. Joined NSN in 2007.

Diploma in Telecommunications from the University of Deutsche Bundespost, Dieburg/Darmstadt, Germany. Diploma in Economics from the University of Applied Sciences, Pforzheim, Germany.

Previously Executive Vice President, Human Resources, Nokia Corporation 2014–2016. Head of Human Resources, NSN 2009–2014. Head of West South Europe region, NSN 2007–2009. Head

of Asia Pacific for Mobile Networks, Siemens 2003–2007. Head of Operations for Mobile Networks, Siemens 2001–2003. Head of Region Central-East and North Europe for Mobile Networks, Siemens 1998–2001. Head of Mobile Networks in Indonesia, Siemens 1994–1998. Various management positions, Siemens 1983–1994.

Kathrin Buvac, b. 1980

President of Nokia Enterprise and Chief Strategy Officer. Nokia Group Leadership Team member since 2016. Joined NSN in 2007.

Degree in Business Information Systems from University of Cooperative Education, Germany. Bachelor Degree in Business Administration from Open University, London, the United Kingdom.

Previously Vice President, Corporate Strategy, Nokia Networks 2014–2016. Chief of Staff to the CEO, NSN 2011–2013. Head of Strategic Projects, Business Solutions, NSN 2009–2011. General Manager, Integration Programme, NSN 2007–2009. General Manager, Corporate Audit, Siemens Holding S.p.A. 2006–2007. General Manager of Controlling International Businesses, Siemens Communications 2003–2006. General Manager M&A USA, Siemens Communications 2002–2003. Business Process Manager e-Commerce, Siemens Communications 2001–2002. Business Analyst, EADS Aerospace and Defence 1999–2000.

Barry French, b. 1963

Chief Marketing Officer. Nokia Group Leadership Team member since 2016. Joined Nokia in 2006.

Master's Degree in International Affairs from Columbia University's School of International and Public Affairs, New York, the United States. Bachelor of Arts degree in Political Science, Bates Colleges, Lewiston, Maine, the United States.

Chief Marketing Officer and Executive Vice President, Marketing and Corporate Affairs, Nokia 2014–2016. Head of Marketing and Corporate Affairs, NSN 2010–2014. Head of Communications, NSN 2006–2010. Vice President, Corporate Communications, United Airlines 2004–2006. Director, Corporate Communications, Dell 2000–2004. Additional roles included communications, government relations and management positions, Engineering Animation, Raytheon, KRC Research and the Sawyer/Miller Group.

Board member, World Affairs Council of Dallas.

Marcus Weldon, b. 1968

Corporate Chief Technology Officer and President of Nokia Bell Labs. Nokia Group Leadership Team member since 2017. Joined NSN in 2016.

Ph.D (Physical Chemistry) degree from Harvard University in Cambridge, Massachusetts, USA. Bachelor of Science (Computer Science and Chemistry) joint degree from King's College in London, UK.

Corporate Chief Technology Officer and President of Bell Labs, Alcatel-Lucent (then Nokia) 2013-2016. Corporate Chief Technology Officer, Alcatel-Lucent 2009-2013. Chief Technology Officer, Broadband Networks & Solutions, Alcatel-Lucent 2006-2009. Member of Technical Staff, Bell Labs, Lucent Technologies 1997-2006. Postdoctoral Member of Technical Staff, AT&T Bell

Labs 1995-1997.

Network Partner to Keen Venture Partners. Advisor to Mundi Ventures.

Ricky Corker, b. 1967

President of Customer Operations, Americas. Nokia Group Leadership Team member since 2018. Joined Nokia in 1993.

Bachelor's degree in Communications and Electronic Engineering from the Royal Melbourne Institute of Technology in Australia.

Previously EVP and President of North America, Nokia 2011-2018. Head of APAC, Nokia Siemens Networks 2009-2011. Head of Sales, APAC, Nokia Siemens Networks 2009. Head of Asia North Region, Nokia Siemens Networks 2008-2009. Head of Hutchison Global Customer Business Team, Nokia Siemens Networks 2007-2008. Vice President APAC, Nokia Networks 2005-2007. Lead Sales Director APAC, Nokia Networks 2004-2005. Account Director Telstra, Nokia Networks 2002-2003. Account Director Vodafone Australia and New Zealand, Sales Director Vodafone APAC Customer Business Team, Nokia Networks 2001-2002. Commercial Director Global Accounts British Telecom, Nokia Networks 2001. Held senior sales and marketing positions at Nokia 1993-2001.

Tommi Uitto, b. 1969

President of Mobile Networks. Nokia Group Leadership Team member since 2019. Joined Nokia in 1996.

Master's degrees from the Helsinki University of Technology, Finland, and Michigan Technological University, U.S.

Previously Senior Vice President, Global Product Sales, Mobile Networks, 2016 – 2018. Senior Vice President, Global MBB Sales, Customer Operations, Nokia Networks, 2015 – 2016. Senior Vice President, West Europe, Customer Operations, Nokia Networks, 2013 – 2015. Head of Radio Cluster (SVP), Mobile Broadband, Nokia Siemens Networks, 2012 – 2013. Head of Global LTE Radio Access Business Line (VP), Mobile Broadband, Nokia Siemens Networks, 2011 – 2012. Head of Quality, Mobile Broadband, 2012. Head of Product Management, Network Systems, Nokia Siemens Networks, 2010. Head of Product Management, Radio Access, Nokia Siemens Networks, 2009. Head of WCDMA/HSPA and Radio Platforms Product Management, Nokia Siemens Networks, 2008. Head of WCDMA/HSPA Product Line Management, Nokia Siemens Networks, 2007. General Manager, Radio Controller Product Management, Nokia Networks 2005 – 2007. Director, Sales & Marketing (Lead Sales Director), France Telecom/Orange Nokia Networks, 2002 – 2005. Operations Director, Northeast Europe, Central & Eastern Europe and Middle East, Nokia Networks, 1999 – 2002.

Sandra Motley, b. 1959

President of Fixed Networks. Nokia Group Leadership Team member since 2019. Joined Nokia in 2003.

Master of Business Administration in Finance from Farleigh Dickinson University, New Jersey, is an Executive Business Program graduate from Smith College, Massachusetts, has done her Post-Masters Mechanical Engineering studies at Columbia University, New York, and holds a degree in Mechanical

Engineering from State University of New York at Buffalo.

Previously COO, Fixed Networks, Nokia 2017-2018. Joined Nokia in 2016. Previously COO Wireless Business, Alcatel-Lucent 2011-2013. Vice President Sales, U.S. Wireless Accounts, Alcatel-Lucent 2009-2011. VP and General Manager of the CDMA Product Unit, Alcatel-Lucent 2007-2009. Various roles in North America & CALA in pre- and post-sales and business operations for Alcatel-Lucent's Wireless business.

The business address of the persons mentioned above is Karaportti 3, FI-02610 Espoo, Finland. There are no conflicts of interest between any duties to Nokia of the members of the Leadership Team and their private interests or duties.

USE OF PROCEEDS

The net proceeds from each issue of Notes will be applied by the Issuer for its general corporate purposes. If in respect of any particular issue of Notes there is a particular identified use of proceeds, this will be stated in the relevant Final Terms.

TAXATION

The following is a general description addressing only the Finnish and Irish withholding tax treatment of income arising from the Notes and Coupons. This description does not deal with any other matters and in particular does not describe the taxation consequences for Irish resident or ordinarily resident holders of Notes and Coupons in respect of the purchase, holding, redemption or sale of the Notes and the receipt of interest thereon. This description is (i) based on the laws, regulations and published case law in full force and effect in Finland and Ireland and the interpretation thereof as at the date of this Base Prospectus, which may be subject to change in the future, potentially with retroactive effect, and (ii) prepared on the assumption that the Issuer is resident in Finland for tax purposes and does not carry on a trade in Ireland through a branch or agency. Investors should be aware that the comments below are of a general nature and do not constitute legal or tax advice and should not be understood as such. The following description is based on an interpretation of general provisions of tax law. Prospective investors are therefore advised to consult their own qualified advisors so as to determine, in the light of their individual situation, the tax consequences of the acquisition, holding, exercise, redemption, sale or other disposition of the Notes and Coupons.

Certain Finnish Tax Considerations

Non-Resident Holders of Notes and Coupons

Payments made by or on behalf of the Issuer to persons not resident in Finland for tax purposes and who do not engage in trade or business through a Finnish branch, permanent establishment or other fixed place of business in Finland may be made without withholding or deduction for, or on account of, any present taxes, duties, assessments or governmental charges of whatever nature imposed or levied by or on behalf of the Republic of Finland or by any municipality or other political subdivision or taxing authority thereof or therein.

When the Issuer effects payments through a paying agent or intermediary, the Issuer should not have an obligation to ensure whether the recipient of the payment is non-resident for Finnish tax purposes provided that the paying agent or intermediary is a Reporting Financial Institution under Common Reporting Standard ("CRS"), Foreign Account Tax Compliance Act ("FATCA") or Council Directive 2014/107/EU of 9 December 2014 ("DAC2"). When the paying agent or other intermediary (such as a financial institution) effecting the payment to the holder of Notes and Coupons is resident in Finland for tax purposes or the payment is made through a Finnish permanent establishment of a non-resident paying agent or intermediary, the entity effecting the payment should ensure whether the recipient of the payment is non-resident for Finnish tax purposes. When payments are effected through a non-Finnish tax resident paying agent or intermediary, no Finnish withholding or related liabilities should relate to the payments.

Resident Holders of Notes and Coupons

Corporates

Payments made by or on behalf of the Issuer to corporates resident in Finland for tax purposes may be made without withholding or deduction for, or on account of, any present taxes, duties, assessments or governmental charges of whatever nature imposed or levied by or on behalf of the Republic of Finland or by any municipality or other political subdivision or taxing authority thereof or therein.

Individuals and Estates

Interest and any similar payments (e.g. interest compensation FI: "*jälkimarkkinahyvitys*" and index compensation FI: "*indeksihyvitys*") made to individuals or estates resident in Finland are generally subject to advance withholding of income tax. Payments classified as capital gain for Finnish income tax purposes are not subject to advance withholding of income tax.

The withholding liability should primarily lie with a possible paying agent or other intermediary (such as a financial institution) effecting the payment to the holder of Notes and Coupons, if the paying agent or intermediary is resident in Finland for tax purposes or the payment is made through a Finnish permanent establishment of a non-resident paying agent or intermediary. When payments are effected through a non-Finnish tax resident paying agent or intermediary, no withholding or related liabilities should relate to the payments.

Certain Irish Tax Considerations

Irish Withholding Tax

Under Irish tax law there is no obligation on the Issuer to operate any withholding tax on payments of interest on the Notes except where the interest has an Irish source and is annual in nature. The interest could be considered to have an Irish source, where, for example, interest is paid out of funds maintained in Ireland or where the Notes are secured on Irish situate assets. The mere offering of the Notes to Irish investors or the listing of the Notes on Euronext Dublin will not cause the interest to have an Irish source.

In certain circumstances, collection agents and other persons receiving interest on the Notes in Ireland on behalf of a Noteholder will be obliged to operate a withholding tax.

Provision of Information

Noteholders should be aware that where any interest or other payment on Notes is paid to them by or through an Irish paying agent or collection agent then the relevant person may be required to supply the Irish Revenue Commissioners with details of the payment and certain details relating to the Noteholder. Where the Noteholder is not Irish resident, the details provided to the Irish Revenue Commissioners may, in certain cases, be passed by them to the tax authorities of the jurisdiction in which the Noteholder is resident for taxation purposes.

SUBSCRIPTION AND SALE

Notes may be sold from time to time by the Issuer to any one or more of Citigroup Global Markets Europe AG, Citigroup Global Markets Limited, Deutsche Bank AG, London Branch, Goldman Sachs International and J.P. Morgan Securities plc (the "**Dealers**"). The arrangements under which Notes may from time to time be agreed to be sold by the Issuer to, and purchased by, Dealers are set out in an Amended and Restated Dealer Agreement dated 1 March 2019 (as amended and/or supplemented and/or restated from time to time, the "**Dealer Agreement**") and made between the Issuer and the Dealers. Any such agreement will, *inter alia*, make provision for the form and terms and conditions of the relevant Notes, the price at which such Notes will be purchased by the Dealers and the commissions or other agreed deductibles (if any) payable or allowable by the Issuer in respect of such purchase. The Dealer Agreement makes provision for the resignation or termination of appointment of existing Dealers and for the appointment of additional or other Dealers either generally in respect of the Programme or in relation to a particular Tranche of Notes.

United States of America

Regulation S Category 2; TEFRA D or TEFRA C as specified in the relevant Final Terms or neither if TEFRA is specified as not applicable in the relevant Final Terms.

The Notes have not been and will not be registered under the Securities Act and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except in certain transactions exempt from the registration requirements of the Securities Act. Terms used in this paragraph have the meanings given to them by Regulation S under the Securities Act.

The Notes are subject to U.S. tax law requirements and may not be offered, sold or delivered within the United States or its possessions or to a United States person, except in certain transactions permitted by U.S. tax regulations. Terms used in this paragraph have the meanings given to them by the United States Internal Revenue Code and regulations thereunder.

Each Dealer has agreed that, except as permitted by the Dealer Agreement, it will not offer, sell or deliver Notes, (i) as part of their distribution at any time or (ii) otherwise until 40 days after the completion of the distribution of the Notes comprising the relevant Tranche, as certified to the Fiscal Agent or the Issuer by such Dealer (or, in the case of a sale of a Tranche of Notes to or through more than one Dealer, by each of such Dealers as to the Notes of such Tranche purchased by or through it, in which case the Fiscal Agent or the Issuer shall notify each such Dealer when all such Dealers have so certified) within the United States or to, or for the account or benefit of, U.S. persons, and such Dealer will have sent to each dealer to which it sells Notes during the distribution compliance period (as defined in Regulation S) relating thereto a confirmation or other notice setting forth the restrictions on offers and sales of the Notes within the United States or to, or for the account or benefit of, U.S. persons.

In addition, until 40 days after the commencement of the offering of Notes comprising any Tranche, any offer or sale of Notes within the United States by any dealer (whether or not participating in the offering) may violate the registration requirements of the Securities Act.

European Economic Area

Prohibition of Sales to EEA Retail Investors

Unless the Final Terms in respect of any Notes specifies the "Prohibition of Sales to EEA Retail Investors" as "Not Applicable", each Dealer has represented, warranted and agreed, and each further Dealer appointed under the Programme will be required to represent, warrant and agree, that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes which are the subject of the offering contemplated by this Base Prospectus as completed by the Final Terms in relation thereto to any retail investor in the European Economic Area pursuant to Regulation (EU) No 1286/2014 (the "**PRIIPs Regulation**"). For the purposes of this provision:

- (a) the expression "retail investor" means a person who is one (or more) of the following:
 - (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "**MIFID II**"); or

- (ii) a customer within the meaning of Directive 2002/92/EC (as amended or superseded, the "**Insurance Mediation Directive**"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or
 - (iii) not a qualified investor as defined in Directive 2003/71/EC (as amended or superseded, the "**Prospectus Directive**"); and
- (b) the expression an "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes.

If the Final Terms in respect of the Notes specifies "Prohibition of Sales to EEA Retail Investors" as "Not Applicable", in relation to each Member State of the European Economic Area, each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that with effect from and including the date on which the Prospectus Directive was implemented in that Member State (the "**Relevant Implementation Date**") it has not made and will not make an offer of Notes which are the subject of the offering contemplated by this Base Prospectus as completed by the Final Terms (or are the subject of the offering contemplated by a Drawdown Prospectus) in relation thereto to the public in that Member State, except that it may, with effect from and including the Relevant Implementation Date, make an offer of such Notes to the public in that Member State:

- (a) at any time to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the relevant Dealer or Dealers nominated by the Issuer for any such offer; or
- (c) at any time in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of Notes referred to above shall require the Issuer or any Dealer to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an "**offer of Notes to the public**" in relation to any Notes in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "**Prospectus Directive**" means Directive 2003/71/EC as amended or superseded, and includes any relevant implementing measure in the Member State concerned.

United Kingdom

Each Dealer has represented, warranted and agreed, and each further Dealer appointed under the Programme will be required to represent, warrant and agree, that:

- (a) *No deposit-taking*: in relation to any Notes which have a maturity of less than one year:
 - (i) it is a person whose ordinary activities involve it in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of its business; and
 - (ii) it has not offered or sold and will not offer or sell any Notes other than to persons:
 - (A) whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses; or
 - (B) who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses, where the issue of the Notes would otherwise constitute a contravention of section 19 of the Financial Services and Markets Act 2000 ("**FSMA**") by the Issuer;

- (b) *Financial promotion*: it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA) received by it in connection with the issue or sale of any Notes in circumstances in which section 21(1) of the FSMA does not apply to the Issuer; and
- (c) *General compliance*: it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any Notes in, from or otherwise involving the United Kingdom.

Japan

The Notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Law No. 25 of 1948, as amended; the "**FIEA**"). Each Dealer has represented and agreed that it will not offer or sell any Notes, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan as defined under Item 5, Paragraph 1, Article 6 of the Foreign Exchange and Foreign Trade Control Law (Law No. 228 of 1949, as amended), or to others for reoffering or resale, directly or indirectly, in Japan or to, or for the benefit of, a resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEA and any other applicable laws, regulations and ministerial guidelines of Japan.

General

Each Dealer has represented, warranted and agreed, and each further Dealer appointed under the Programme will be required to represent, warrant and agree, that it has complied and will comply with all applicable laws and regulations in each country or jurisdiction in or from which it purchases, offers, sells or delivers Notes or possesses, distributes or publishes this Base Prospectus, any Drawdown Prospectus or any Final Terms or any related offering material, in all cases at its own expense. Other persons into whose hands this Base Prospectus, any Drawdown Prospectus or any Final Terms comes are required by the Issuer and the Dealers to comply with all applicable laws and regulations in each country or jurisdiction in or from which they purchase, offer, sell or deliver Notes or possess, distribute or publish this Base Prospectus, any Drawdown Prospectus or any Final Terms or any related offering material, in all cases at their own expense.

The Dealer Agreement provides that the Dealers shall not be bound by any of the restrictions relating to any specific jurisdiction (set out above) to the extent that such restrictions shall, as a result of change(s) or change(s) in official interpretation, after the date hereof, of applicable laws and regulations, no longer be applicable but without prejudice to the obligations of the Dealers described in the paragraph headed "General" above.

Selling restrictions may be supplemented or modified with the agreement of the Issuer. Any such supplement or modification may be set out in the relevant Final Terms (in the case of a supplement or modification relevant only to a particular Tranche of Notes), in the relevant Drawdown Prospectus or in a supplement to this Base Prospectus.

GENERAL INFORMATION

Authorisation

1. The establishment of the Programme was authorised by resolutions of the Board passed on 25 and 26 October 2007. The updating of the Programme was authorised by resolutions of the Board of the Issuer passed on 30 April 2014. The Issuer has obtained or will obtain from time to time all necessary consents, approvals and authorisations in connection with the issue and performance of its obligations under the Notes.

Legal and Arbitration Proceedings

2. There are no governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened, of which the Issuer is aware) which may have, or have had during the 12 months prior to the date of this Base Prospectus, a significant effect on the financial position or profitability of Nokia.

Significant/Material Change

3. There has been no significant change in the financial or trading position of Nokia taken as a whole since 31 December 2018 and there has been no material adverse change in the financial position or prospects of Nokia since 31 December 2017.

Independent Auditors

4. The auditors of Nokia are PricewaterhouseCoopers Oy, Authorised Public Accountants, with Authorised Public Accountant (KHT) Pasi Karppinen as the auditor with principal responsibility who is a member of the Finnish Association of Auditors. PricewaterhouseCoopers Oy has audited Nokia's financial statements, without qualification, in accordance with good auditing practice in Finland, for each of the financial years ended on 31 December 2016 and 31 December 2017. The auditors of Nokia have no material interest in Nokia.

Dealers Transacting with the Issuer

5. Certain of the Dealers and their affiliates have engaged, and may in the future engage, in investment banking and/or commercial banking transactions with, and may perform services for, the Issuer and its affiliates in the ordinary course of business. Certain of the Dealers and their affiliates may have positions, deal or make markets in the Notes issued under the Programme, related derivatives and reference obligations, including (but not limited to) entering into hedging strategies on behalf of the Issuer and its affiliates, investor clients, or as principal in order to manage their exposure, their general market risk, or other trading activities.

In addition, in the ordinary course of their business activities, the Dealers and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of the Issuer or the Issuer's affiliates. Certain of the Dealers or their affiliates that have a lending relationship with the Issuer routinely hedge their credit exposure to the Issuer consistent with their customary risk management policies. Typically, such Dealers and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in securities, including potentially the Notes issued under the Programme. Any such positions could adversely affect future trading prices of Notes issued under the Programme. The Dealers and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Documents on Display

6. Copies of the following documents may be inspected in physical form during normal business hours at the registered offices of the Issuer and from the specified offices of the Fiscal Agent for 12 months from the date of this Base Prospectus:

- (a) the constitutive documents of the Issuer (with an accurate/direct translation thereof);
- (b) the audited consolidated financial statements of the Issuer as at and for the years ending 31 December 2016 and 2017;
- (c) the unaudited consolidated interim financial statements of the Issuer as at and for the three and nine months ended 30 September 2018;
- (d) the unaudited consolidated interim financial information of the Issuer as at and for the three and twelve months ended 31 December 2018;
- (e) the Agency Agreement;
- (f) the Deed of Covenant;
- (g) the Dealer Agreement;
- (h) the Programme Manual (which contains the forms of the Notes in global and definitive form);
- (i) a copy of this Base Prospectus;
- (j) the Issuer-ICSDs Agreement (which is entered into between the Issuer and Euroclear and/or Clearstream, Luxembourg with respect to the settlement in Euroclear and/or Clearstream, Luxembourg of Notes in New Global Note form); and
- (k) any future prospectuses, offering circulars, information memoranda and supplements including Final Terms (save that a Final Terms relating to a Note which is neither admitted to trading on a regulated market in the European Economic Area nor offered in the European Economic Area in circumstances where a prospectus is required to be published under the Prospectus Directive will only be available for inspection by a holder of such Note and such holder must produce evidence satisfactory to the Issuer and the Paying Agent as to its holding of Notes and identity) to this Base Prospectus and any other documents incorporated herein or therein by reference.

Clearing of the Notes

7. The Notes have been accepted for clearance through Euroclear and Clearstream, Luxembourg. The appropriate common code and the International Securities Identification Number in relation to the Notes of each Tranche will be specified in the relevant Final Terms. The relevant Final Terms shall specify any other clearing system as shall have accepted the relevant Notes for clearance together with any further appropriate information.

The address of Euroclear is Euroclear Bank SA/NV, 1 Boulevard du Roi Albert II, B-1210 Brussels and the address of Clearstream, Luxembourg is Clearstream Banking, 42 Avenue JF Kennedy, L-1855 Luxembourg.

Conditions for determining price

8. The price and amount of Notes to be issued under the Programme will be determined by the Issuer and each relevant Dealer at the time of issue in accordance with prevailing market conditions.

Post-issuance information

9. The Issuer does not intend to provide any post-issuance information in relation to any issues of Notes.

REGISTERED OFFICE OF THE ISSUER

Nokia Corporation

Karaportti 3
FI-02610
Espoo,
Finland

DEALERS

Citigroup Global Markets Europe AG

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60323 Frankfurt am Main
Germany

Citigroup Global Markets Limited

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London E14 5LB
United Kingdom

Deutsche Bank AG, London Branch

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London EC2N 2DB
United Kingdom

Goldman Sachs International

Peterborough Court
133 Fleet Street
London EC4A 2BB
United Kingdom

J.P. Morgan Securities plc

25 Bank Street
Canary Wharf
London E14 5JP
United Kingdom

FISCAL AGENT

Citibank N.A., London Branch

Citigroup Centre
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IRISH LISTING AGENT

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Davy House
49 Dawson Street
Dublin 2
Ireland

PAYING AGENT AND TRANSFER AGENT

Citibank Europe plc

1 North Wall Quay
Dublin 1
Ireland

REGISTRAR

Citigroup Global Markets Europe AG

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LEGAL ADVISERS

To the Issuer as to English law:

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London EC2A 2AP
United Kingdom

To the Dealers as to English law:

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United Kingdom

To the Issuer as to Finnish law:

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Kasarmikatu 21A
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Helsinki
Finland

AUDITORS TO THE ISSUER

PricewaterhouseCoopers Oy

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FI-00101 Helsinki
Finland