Creditreform Corporate Issuer / Issue Rating

Nokia Oyj

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Rating object	Rating information	
Nokia Oyj	Corporate Issuer Rating: **BB+ / stable**	Type: Initial rating, Unsolicited
Creditreform ID: 400987969 Founded: 1865 Industry: Telecommunications Technology CEO: Rajeev Suri	LT LC Senior Unsecured Issues: **BB+**	Other: **n.r.**
Rating objects: Long-term Corporate Issuer Rating: Nokia Oyj Long-term Local Currency Senior Unsecured Issues	Rating Date: 11 December 2018 Monitoring until: Withdrawal of the rating Publication: 17 December 2018 Rating methodology: CRA "Corporate Issuer Ratings", CRA "Non-financial Corporate Issue Ratings" Rating history: www.creditreform-rating.de	

Content

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Abstract

Company

Nokia Oyj - hereinafter also referred to as ''Nokia'', or ''the Company'' - is a multinational corporation based in Finland which is active in the telecommunications and information technology industry. The group is divided into two divisions, the Networks Business and Nokia Technologies. The Networks Business' product portfolio encompasses mobile and fixed network infrastructure equipment, communications networks service platforms and related services, mainly to communication service providers. Nokia Technologies develops patents and licenses technological innovations, mainly in computing and mobility, for which it sells the rights to their customers. The group provides its products and services in approximately 130 countries around the world, and employed approximately 102,000 people during the business year 2017.

The group was established in 1865 and has since grown into one of the largest global operators in its industry. The Company completed its acquisition of Alcatel-Lucent at the beginning of 2016 in line with its strategic change. The Company has been generating high negative annual results, mainly caused by high integration and restructuring costs, non-recurring events, and due to difficult market conditions in the Networks Business.

During the business year 2017 Nokia generated revenues of EUR 23,147 million (2016: EUR 23,641 million), an EBITDA of EUR 1,425 million (2016: EUR 456 million) and an EAT of EUR -1,458 million (2016: EUR -927 million) and invested approximately EUR 4,900 million in Research and Development.

Rating result

The rating of BB+ attests Nokia Oyj a satisfactory level of creditworthiness. Positive rating factors are the Company's strong market position and its geographical diversification. Limiting rating factors are the fast-moving and highly competitive market, as well as the negative results it has generated over recent years. Despite the high negative results over recent years, we see an improvement in the Company's cost structure and operative profitability adjusted by restructuring costs and non-recurring events. A constraining factor for the rating is the fact that the Company is still in the middle of a restructuring process and has not managed to generate a positive result over the last two years. Furthermore, the Company is planning for additional restructuring costs and outflows until the end of 2020.

Excerpts from the financial ratios analysis 2017

- \+ Increasing EBTDA and EBIT
- \+ Sufficient Liquidity

- − Decreasing Equity ratio
- − Negative EBIT and EAT

Suggestion:

General Rating Factors summarize the key issues that – in the view of the analysts as of the date of the rating –have a significant or long-term impact on the rating, positive (+) as well as negative (-).

Current Rating Factors are the key factors that have, in addition to the Underlying Rating Factors, an impact on the current rating.

Prospective Rating Factors are factors and possible events that – in the view of the analysts on the date of the rating – would most likely have a stabilizing or positive effect (+) or a weakening or negative effect (-) on future ratings if they occurred. This is not a full list of possible future events with potential relevance for future ratings. Circumstances can arise that are not included in the list of prospective factors, whose effects are impossible to assess at the time of the rating, either because these effects are uncertain or because the underlying events are deemed unlikely to occur.

Outlook

The one-year outlook of the rating is stable. This assessment is based on our assumption that market conditions will improve, accompanied by a better cost structure due to its achieved cost savings. However, further restructuring charges are expected to put pressure on cash flow and profitability following the announcement of the ''cost reduction programme''.

Relevant rating factors

Table 1: Financials of Nokia Oyj (Group) I Source: Nokia Oyj annual report 2017, standardized by CRA

Financial ratios extract Basis: consolidated annual statement per 31.12 (IFRS)	CRA standardized figures	
	2016	2017
Turnover	EUR 23,641 million	EUR 23,147 million
EBITDA	EUR 456 million	EUR 1,425 million
EBIT	EUR -1,138 million	EUR -166 million
EAT	EUR -927 million	EUR -1,458 million
Total Assets	EUR 36,023 million	EUR 33,562 million
Equity ratio	34.22%	24.82%
Capital lock-up period	58.38	63.01
Short-term capital lock-up	18.51%	17.77%
Neb Debt / EBITDA adj.	24.27	10.19
Return on investment	-1.88%	-3.29%

General rating factors

- \+ Diversified geographical presence
- \+ Strong market position in the Networks Business
- \+ Large patent portfolio
- \+ Good access to financial markets

- − Dependent on the cyclical IT and communications industry
- − High ongoing research and development costs
- − Highly competitive market
- − Short life cycle of products
- − Relatively high dividend distributions

Current rating factors 2018

- \+ Achieving cost savings as set out in the ''cost savings programme''
- \+ First 5G network deployment expected at the end of 2018

- − Difficult market environment in the Networks Business
- − Declining revenue and negative EBIT and EAT

Prospective rating factors

- \+ Strong participation in the 5G network rollouts as an important component of sales and earnings growth
- \+ Further cost savings to improve profitability
- \+ Improvement of financial key figures
- \+ Improved market conditions

- Higher-than-expected restructuring costs
- Decreasing operative margins
- Ongoing negative results

Best-case scenario

Best case: BBB-

Worst case: BB

In our best-case scenario for one year, we assume a rating of BBB-. This could be the case if the market environment recovered and the Company showed a significant improvement of EBITDA and EAT, together with stronger cash flows.

Worst-case scenario

In our worst-case scenario for one year, we assume a rating of BB. This could be the case if the market shows further signs of weakening, and the restructuring costs for the cost reduction programme turn out to be higher than forecasted, putting further negative pressure on the Company's EBITDA and cash flows.

Note:
The scenarios are based on the information available at the time of the rating. Within the forecasted horizon, some circumstances could occur that would lead to a rating change out of the indicated range.

Business development and outlook

During the business year 2017 Nokia generated revenues of EUR 23,147 million (2016: EUR 23,641 million), an EBITDA of EUR 1,425 million (2016: EUR 456 million), and an EAT of EUR -1,458 million (2016: EUR -927 million).

The decline in revenue was mainly caused by a 6% decline in the Networks Business, which generated revenues of EUR 20,523 million - approximately 89% of total revenues. The decline is mainly caused by difficult market conditions in Mobile networks and IP/Optical networks, and a decline in Fixed Networks in comparison to a particular strong year in 2016.

The EBITDA increased, mainly due to lower cost of sales, a higher gross profit in Nokia Technologies partially compensated due to lower gross profit in the Networks Business, and higher product portfolio integration-related costs. Higher operating profit in Nokia Technologies was mainly due to recurring and non-recurring revenue from licensing agreements and settled arbitrations. During the 2017 business year, the Nokia Technology segment grew by 57% to EUR 1,654 million, of which only EUR 300 million was non-recurring in nature. This resulted in an operating profit of EUR 1,124 million, an increase of 94% in comparison to the prior business year.

The decline in EAT was driven by an increase in financial expenses of EUR 537 million (2016: EUR 287 million) due to a non-recurring charge of EUR 220 million related to a tender offer to repurchase several notes, as well as a higher income tax expense of 927 million (2016: EUR +457 million). The higher income tax expense was caused by a non-recurring tax expense of EUR 245 million and a deferred tax expense of EUR 777 million resulting from a re-measurement of deferred tax assets as a result of the tax reforms in the United States.

Following the acquisition of Alcatel Lucent, Nokia introduced the ''cost savings programme'' in 2016, which was implemented to realize EUR 1,200 million in annual recurring cost savings. The cost savings are based on the operating expenses of Nokia (excluding Nokia Technologies) and Alcatel Lucent in 2015. As of the second quarter 2018 the Company expects to realize the full EUR 1,200 million recurring cost savings, of which EUR 800 million are operating expenses and EUR 400 million are cost of sales by the end of 2018. In line with its cost savings programme, the Company planned restructuring charges and cash outflows totaling EUR 3,050 million and EUR 3,400 million respectively. The cumulative recognized charges and cash outflows as of the end of 2017 were EUR 1,900 million and EUR 1,550 million respectively. To further improve their cost structure, the Company announced the "cost reduction programme", which is expected to realize EUR 700 million in non-IFRS annual recurring operating expenses by the end of 2020. The accompanying charges related to this programme are estimated at EUR 900 million.

During the first three quarters of the business year 2018 the Company's revenue declined by 5% to EUR 15,695 million in comparison to the prior year period. Adjusted by exchange rate effects, the Company's revenue remained stable in comparison with the prior period. Consequently, EAT was negative with EUR -541 million. The first three quarters of 2018 the Company was again faced with difficult market conditions. The market conditions in the Networks Business are expected to improve during 2019, mainly driven by a higher demand for 5G rollouts. Customer demand for 5G is expected to start at the end of 2018. Nokia expects its Nokia Technologies segment to show further growth, forecasting a 10% CAGR ending in 2020.

Structural risk

Nokia Corporation (Finnish: Nokia Oyj) is a public limited liability company and is listed on the Nasdaq Helsinki, Euronext Paris, and the New York Stock exchange. Nokia is active in communications and information technology and is headquartered in Espoo, Finland. The Company employed an average number of 101.731 employees during the business year of 2017.

In light of a strategic review and its plans to acquire Alcatel Lucent, the Group decided to sell the HERE business, an important pillar of its organization. The HERE business - which provided mapping and location services - was sold to a consortium of automotive companies in 2015, for which Nokia received EUR 2,550 million and recorded a gain of EUR 1,200 million. During the business year 2016 Nokia acquired all of the securities (shares, ADS, convertible bonds) of Alcatel Lucent through an offering of its own shares.

The Company is organized into two different divisions. The Network Business and Nokia Technologies. The Network Business is organized into five different business groups (Mobile Networks, Fixed Networks, Global Services, IP/Optical Networks, Nokia Software) and provides the market with products and services that encompass mobile and fixed-network access infrastructure equipment, Internet protocol routing, optical networks, and software platforms and applications. The Network Business division is the revenue driver of the Company, generating 88.67% of the revenue during the business year of 2017. Within Nokia Technologies, the Company develops new technologies for which it tries to acquire new patents. The Company tries to drive growth and renewal for its existing patent licensing business and attempts to create new business based on new innovations.

The leadership team of Nokia is comprised of 15 different members and is chaired by the CEO and President Rajeev Suri. The team is responsible for the operative management and decisions concerning Nokia’s strategy and the overall business portfolio. The members of the leadership team are appointed by the board of directors.

Overall, we assess the structural risk of Nokia as moderate. With the acquisition and integration of Alcatel-Lucent, the Company increased its market position, expanded its research capabilities, broadened its product portfolio, and offered many operational synergies. To improve its cost structure the Company introduced the ‘’cost savings programme’’ and ‘’cost reduction programme’’ (please see Business development and outlook) which have already realized significant cost savings. Further restructuring charges are still to be expected.

Business risks

Nokia provides its customers mainly with products and services within the telecommunications network equipment market. Characteristic for this market is the high degree of competition and ongoing high investments in research and development due to relatively short product cycles. During the business year 2017 the group invested EUR 4,916 million - approximately 21% of its revenue - into research and development, putting pressure on its cash flows and cost structure. These ongoing high investments are needed to retain the Group’s strong market position. At the end of 2017 the Group had a portfolio of approximately 20,000 patent families, and is one of the largest investors in R&D in the field of information communication technology.

Following the acquisition of Alcatel Lucent, Nokia significantly increased its market position and geographical footprint. The Company significantly increased its turnover in all of its business segments and regions, particularly in the U.S. The strengthened product portfolio, market position and increased geographical footprint mitigate the Company's exposure to general market risks and regional downturns in the economy. The market, however, remains highly competitive and cyclical in nature. The Networks Business in particular is exposed to the spending cycles of network operators due to the relatively short life cycle of products in this industry, resulting in volatile demand. The cyclical nature of the Networks Business is partially mitigated by increasing recurring revenues in Nokia Technologies. Nokia Technologies is increasing its share of recurring revenues in the licensing business.

Due to the global nature of Nokia's operations, the Company is exposed to currency fluctuations. To mitigate the effect of exchange rate fluctuations, the Company hedges operative forecasted net foreign exchange exposure.

We hold the view that the Company's business risk profile is moderately high. The reason for this is the fact that the Company operates in a highly competitive and fast-moving market, which is characterized by high research and development costs that do not guarantee that the Company will be able to provide the market with new innovative technology in a timely manner. The Company's strong market position in combination with its geographical footprint, and its growing Nokia Technologies segment, partly mitigate the aforementioned exposure to market risks of the Company.

Financial risks

For analytical purposes, CRA adjusted the original values in the financial statements in the context of its financial ratio analysis. Contrary to our normal practice, we deducted the goodwill shown on the balance sheet from the equity only by 50%, suggesting a certain recoverability of goodwill. The following descriptions and indicators are based primarily on these adjustments.

We hold the view that the equity ratio is sufficient, with an adjusted equity ratio of 24.82% as of 31 December 2017. The equity quote of the Company has been declining over the last two years following the acquisition of Alcatel Lucent in 2016, mainly due to the negative net annual results and the buyback programme of shares during 2016 and 2017 in line with its capital optimization programme.

As of 31.06.2018 total debt amounted to EUR 3,736 million (2016: EUR 3,846 million), of which EUR 3,462 were bonds outstanding. During the business year 2019, EUR 736 million will reach maturity, with EUR 499 million in 2021 and EUR 411 million in 2022; EUR 1,816 million has a maturity date of 5 years and longer. We believe that the Company has a well-distributed debt maturity profile.

During the business year 2017 the Company repurchased shares totaling EUR 785 million, representing approximately 2.6% of the share capital and total voting rights in the context of its capital structure optimization programme. During the business years 2016 and 2017 the Company bought back approximately EUR 1,000 million worth of shares and completed the share buy-back programme in 2017.

Despite the negative annual result, the Company paid a dividend of 0.19 EUR per share for the year 2017. The dividend was increased in comparison to the prior year, which cost further liquidity. Nokia does not have a certain quantitative distribution policy, but aims for an annual dividend of 40% to 70% of EPS.

During the business year 2017 Nokia had an operative cash flow of EUR 1,811 million and a free cash flow of EUR 1,210 million. As a result of lower restructuring and network equipment costs, the Company expects an improvement of free cash flow over the long term.

As of 31.09.2018 the Company had cash and other liquid assets of EUR 4,799 million (31.12.2017: EUR 8,280 million). The decline in cash and other liquid assets was mainly due to the high dividend distributions and decrease in non-interest-bearing liabilities. The Company does dispose of an unused revolving credit facility of EUR 1,579 million, maturing in June 2020, and a EUR 500 million loan facility for financing research and the development of 5G technology. We believe that, with the current situation, Nokia has sufficient liquid funds at their disposal to meet their short-term financial obligations. Furthermore, the Company has an EMTN programme of EUR 5 billion which we will assess in the following section of the report.

Overall, we consider the Company's financial risks to be moderate. The Company has a strong financial position with a reasonable equity ratio, a well-distributed debt profile, and good liquidity position.

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Issuer / Issue rating details

Issue rating

This issue rating is exclusively valid for the long-term senior unsecured issues denominated in euros, issued by Nokia Oyj, and which are included in the list of ECB-eligible marketable assets. The ECB list of eligible marketable assets can be found on the website of the ECB.

The Notes have been issued within the framework of Nokia Oyj's EMTN Programme, most recently renewed in May 2018. The total nominal value of the bonds issued must not exceed EUR 5 billion.

According to the prospectus as of 4 May 2018, the notes benefit from a negative pledge provision and a cross acceleration mechanism. We have assigned the long-term senior unsecured issues issued by Nokia Oyj a rating of BB+. This decision is mainly based on the corporate rating of Nokia. Other types of debt instruments or issues denominated in other currencies have not been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

Overview

Table 2: Summary of CRA Ratings I Source: CRA

Rating object	Details information	
	Date	Rating
Nokia Oyj (Issuer)	11.12.2018	BB+ / stable
Long Term Local Currency Senior Unsecured Issues	11.12.2018	BB+

Table 3: Overview of Nokia's Debt Issuance Programme I Source: Nokia Oyj

Issue details			
Volume	EUR 5,000,000,000	Maturity	Depending on the respective bond
Issuer	Nokia Oyj	Coupon	Depending on the respective bond
Arrangers	Deutsche Bank	Currency	Depending on the respective bond
Credit Enhancement	-	ISIN	Depending on the respective bond

All future LT LC senior unsecured Notes that will be issued by Nokia under the current EMTN programme, denominated in Euro and included in the list of ECB-eligible marketable assets will, until further notice, receive the same ratings as the current LT LC senior unsecured Notes issued under the EMTN programme. Notes issued under the programme in any currency other than Euro, or other types of debt instruments, have not yet been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

Financial ratio analysis

Table 4: Financial key ratios I Source: Nokia Oyj annual report, structured by CRA

Asset structure	2015	2016	2017
Fixed asset intensity (%)	12.91	42.45	40.48
Asset turnover	0.72	0.88	0.67
Asset coverage ratio (%)	353.69	119.73	105.81
Liquid funds to total assets (%)	55.34	25.89	24.67
Capital structure			
Equity ratio (%)	42.86	34.22	24.82
Short-term-debt ratio (%)	42.85	38.24	44.54
Long-term-debt ratio (%)	2.82	16.60	18.01
Capital lock-up period (in days)	55.78	58.38	63.01
Trade-accounts-payable ratio (%)	10.73	10.50	11.91
Short-term capital lock-up (%)	17.19	18.51	17.77
Gearing	0.04	1.17	2.03
Leverage	2.81	2.70	3.37
Financial stability			
Cash flow margin (%)	11.25	26.06	0.86
Cash flow ROI (%)	7.90	17.11	0.59
Debt / EBITDA adj.	5.06	40.03	15.17
Net Debt / EBITDA adj.	0.16	24.27	10.19
ROCE (%)	-1,176.11	-14.26	1.89
Debt repayment period	7.43	4.95	6.85
Profitability			
Gross profit margin (%)	76.74	69.29	66.41
EBIT interest coverage	6.58	-2.55	-0.28
EBITDA interest coverage	7.69	1.02	2.43
Ratio of personnel costs to total costs (%)	29.91	33.05	33.89
Ratio of material costs to total costs (%)	23.26	30.71	33.59
Cost income ratio (%)	86.72	104.80	100.71
Return on investment (%)	14.89	-1.88	-3.29
Return on equity (%)	40.11	-9.29	-14.12
Net profit margin (%)	19.75	-3.92	-6.30
Operating margin (%)	13.53	-4.81	-0.72
Liquidity			
Cash ratio (%)	91.73	54.42	49.30
Quick ratio (%)	189.27	129.92	113.47
Current ratio (%)	203.24	150.49	133.64

Appendix

Rating history

Corporate issuer rating of Nokia Oyj (Group) I Source: CRA

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	11.12.2018	17.12.2018	Withdrawal of the rating	BB+ / stable

LT LC senior unsecured issues issued by Nokia Oyj I Source: CRA

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	11.12.2018	17.12.2018	Withdrawal of the rating	BB+

Regulatory requirements

The present rating is an unsolicited rating. Creditreform Rating AG was not commissioned by the Issuer with the preparation of the rating. The present analysis was prepared on a voluntary basis.

The rating is based on the analysis of published information and on internal evaluation factors. The quantitative analysis is primarily based on the last annual report of the Issuer, the basis prospectuses and on press releases of the company. The information and documents meet the requirements and are in accordance with the published Creditreform Rating AG's rating methodology.

The rating was conducted on the basis of Creditreform Rating´s "Corporate Issue Ratings" methodology and the "Corporate Issuer Rating" methodology. A complete description of Creditreform Rating´s rating methodologies is published on the following internet page: www.creditreform-rating.de.

The documents submitted and information gathered were sufficient to meet the requirements of Creditreform Rating AG's rating methodology. A complete description of Creditreform Rating´s rating methodologies and Creditreform`s basic document "Rating Criteria and Definitions" is published on the following internet page:

www.creditreform-rating.de/en/regulatory-requirements/

This rating was carried out by analysts Rudger van Mook (r.vanmook@creditreform-rating.de) and Artur Kapica (a.kapica@creditreform-rating.de), both located in Neuss, Germany. A management meeting did not take place.

The rating was presented to the rating committee on 11 December 2018. The Company examined the rating report prior to publication and was given at least one full working day to appeal the rating committee's decision and to provide additional information. The rating decision was not amended following this examination.

The rating will be monitored until CRA removes the rating and sets it to non-rated (n.r.).

In 2011 Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG (CRA) is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

Please note:

This report exists in an English version only. This is the only binding version.

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In the event of providing ancillary services to the rated entity, CRA will disclose all ancillary services in the credit rating report.

Rules on the presentation of credit ratings and rating outlooks

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our 'Rating Committee' policy, all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, CRA has used following substantially material sources:

<u>Corporate Issuer rating:</u>

1. Annual report

2. Website

3. Internet research

<u>Corporate Issue rating:</u>

1. Issuer corporate rating incl. information used for the Issuer corporate rating

2. Documents on issues / instruments

There are no other attributes and limitations of the credit rating or rating outlook other than those displayed on the CRA website. Furthermore, CRA considers as satisfactory the quality and extent of information available on the rated entity. With respect to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the time of disclosure of the credit rating to the rated entity and the public disclosure, no amendments were made to the credit rating.

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The meaning of each rating category, the definition of default or recovery and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings and best-case scenario credit ratings are explained.

The date at which the credit rating was initially released for distribution and the date when it was last updated, including any rating outlooks, is indicated clearly and prominently in the 'Basic Data' card as a "rating action"; initial release is indicated as "initial rating", other updates are indicated as an "update", "upgrade" or "downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within 'Basic Data' information card.

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