

# Nokia

## Company report

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# Valuation nested deep in the value bin

We raise Nokia's recommendation to Buy (previous Accumulate) but, reflecting the estimate changes and the tighter valuation view we lower our target price to EUR 4.8 (previous 5.3 EUR). Although some uncertainty about the timing of operators' investments was sensed in Nokia's Q1 report, the company's improved performance in recent years seems sustainable to us. Considering this, the share's valuation appears very low and in light of the strengthening cash flow profile in the next few years Nokia's profit distribution to shareholders will also be abundant.

## Network Infrastructure offset the softness of the other units

Nokia's comparable EBIT in Q1 was EUR 479 million (Q1'22: 583 MEUR), which was clearly below our (515 MEUR) and consensus (556 MEUR) estimates. This was, however, explained by the temporary softness of Nokia Technologies and by the loss-making venture fund investments. In Mobile Networks, operational performance was as expected as the large 5G projects in India accelerated growth (+13%) but depressed EBIT (5.3%). In Network Infrastructure, the year started out better than expected (growth +13%, EBIT 15.3%) and the strong performance offset other units.

## Outlook unchanged, we have to wait for signs of earnings development until late 2023

As expected, Nokia reiterated its outlook for this year, but revised its net sales range to EUR 24.6-26.2 billion in light of exchange rate changes (previous EUR 24.9-26.5 bn). Comparable EBIT is still expected to be 11.5-14.0%. However, the company commented that it started to see signs that the general economic environment influences customers' purchasing behavior. The need to invest in 5G and fixed networks has not disappeared and Nokia believes that the uncertainty is related more to the timing of investments. Therefore, the company expects its profitability to focus more on H2 this year. Then, the economies of scale from India's growing volumes and the slight improvement in North America from Q1 will support the profitability of Mobile Networks. Presumably, patent disputes will also be settled at that time, which is key to the outlook of Nokia Technologies.

## Earnings estimates revised downward

Based on the Q1 report, we revised our earnings estimates 3-4% downward for the coming years. Using the midpoint of Nokia's guidance the comparable EBIT is around EUR 3.2 billion and our estimate (net sales EUR 25.8 bn, EBIT: 12.0%) is some EUR 100 million below this. For 2024-2025, we expect almost stable net sales growth and an improvement in the EBIT margin to 12.5-12.8%, driven by Mobile Networks. With our 2024-2026 earnings estimates and a cash flow ratio of around 66-72% (target 55-85 %) Nokia would generate around EUR 2.3-2.4 billion in free cash flow annually.

## Valuation has turned very low

Nokia's valuation seems very low (2023e adj. P/E 9.5x and EV/EBIT 6.0x) considering the company's current performance. We believe, the sluggish growth outlook for the network equipment market weighs on Nokia's valuation, as without earnings growth you should not pay particularly high multiples for the share. However, current multiples have fallen to levels where we think upside can be argued. Starting from next year, we expect Nokia's profit distribution to be abundant, when, based on the company's overcapitalized balance sheet, virtually all free cash flow should be returned to the owners. With our 2024-2026 estimates, the free cash flow yield (10-11%) becomes attractive, in addition to which we see the possibility of an EUR 0.2-0.4 extra dividend next spring.

## Recommendation

### Buy

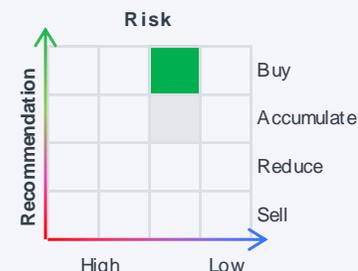
(previous Accumulate)

### EUR 4.80

(previous EUR 5.30)

### Share price:

3.90



## Key figures

	2022	2023e	2024e	2025e
<b>Revenue</b>	24,911	25,802	25,933	26,212
<b>growth-%</b>	12%	4%	1%	1%
<b>EBIT adj.</b>	3,109	3,098	3,246	3,351
<b>EBIT-% adj.</b>	12.5 %	12.0 %	12.5 %	12.8 %
<b>Net Income</b>	4,201	1,971	2,077	2,231
<b>EPS (adj.)</b>	0.44	0.41	0.43	0.44

<b>P/E (adj.)</b>	9.9	9.5	9.1	8.8
<b>P/B</b>	1.1	1.0	0.9	0.9
<b>Dividend yield-%</b>	2.8 %	4.6 %	5.6 %	6.7 %
<b>EV/EBIT (adj.)</b>	7.0	6.0	5.4	4.9
<b>EV/EBITDA</b>	6.3	5.0	4.5	4.1
<b>EV/S</b>	0.9	0.7	0.7	0.6

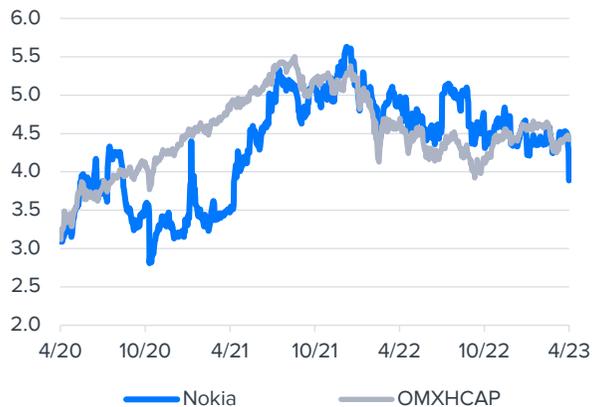
Source: Inderes

## Guidance

(Unchanged)

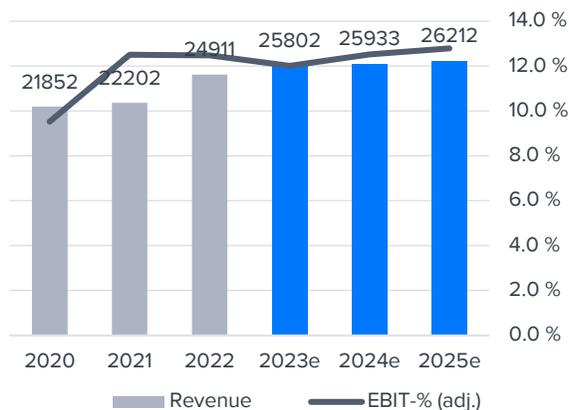
2023: Net sales EUR 24.6-26.2 billion and comparable operating profit 11.5-14.0%

### Share price



Source: Millstream Market Data AB

### Revenue and EBIT %



Source: Inderes

### EPS and dividend



Source: Inderes



### Value drivers

- A successful turnaround, which seems to be on a solid footing
- Strong net cash flow and improving cash flow profile enable abundant profit distribution in the next few years
- Huawei sanctions open up opportunities
- Strategic value of Nokia's technologies



### Risk factors

- Fierce competitive pressure on the market and price erosion
- Global component shortages and supply chain challenges
- Impact of the worsening economic outlook on operators' investments
- Prolongation of patent disputes and timing of license fees in Nokia Technologies

Valuation	2023e	2024e	2025e
Share price	3.90	3.90	3.90
Number of shares, millions	5540.3	5540.3	5540.3
Market cap	21610	21610	21610
EV	18725	17429	16318
P/E (adj.)	9.5	9.1	8.8
P/E	11.0	10.4	9.7
P/FCF	30.3	9.2	9.1
P/B	1.0	0.9	0.9
P/S	0.8	0.8	0.8
EV/Sales	0.7	0.7	0.6
EV/EBITDA	5.0	4.5	4.1
EV/EBIT (adj.)	6.0	5.4	4.9
Payout ratio (%)	51%	59%	65%
Dividend yield-%	4.6 %	5.6 %	6.7 %

Source: Inderes

# Network Infrastructure offset the softness of the other units 1/ 2

## As expected, India boosted net sales growth

Nokia's Q1 net sales increased by 10% (9% in constant currency) to EUR 5.9 billion, while the consensus was EUR 5.7 billion. As expected, the drivers of growth in constant currency were Mobile Networks (+13%), where the large 5G projects in India (net sales 853 MEUR, +327%) boosted net sales development. Network Infrastructure (+13%) also continued its strong development and delivered a positive surprise. Cloud and Network Services (+3%) developed largely in line with our expectations. Nokia Technologies' net sales (Q1'23: 242 MEUR, -22%) decreased, which reflected the option utilized by the long-term licensee (Microsoft) at the end of last year for certain licenses.

## Earnings slightly below expectations

Nokia's comparable EBIT in Q1 was EUR 479 million (Q1'22: 583 MEUR), which was clearly below our (515 MEUR) and consensus (556 MEUR) estimates. The change in the geographical focus on Mobile

Networks from North America to India was as expected reflected in the unit's margins (EBIT Q1'23: 5.3% vs . Q1'22: 7.5%). Network Infrastructure continued to improve its very strong performance even more than expected (EBIT Q1'23: 15.3% vs . Q1'22: 9.5%). Profitability in Cloud and Network Services was slightly in the red (-2.6%) as the gross margin weakened when sales focused more on hardware instead of software. Nokia Technologies' EBIT (Q1'23: 149 MEUR, -32%) decreased clearly, reflecting the lower net sales load. Impairment of Nokia's venture fund investments resulted in losses of some EUR -30 million in Q1 and adjusted for these losses the comparable profit would have been close to our estimate.

Nokia's free cash flow (Q1'23: -147 MEUR) was weak as expected in Q1 when major Indian projects tied up working capital. Cash flow should, however, strengthen toward the end of the year, and in particular during 2024. Nokia's net cash at the end of the quarter was EUR 4.3 billion.

## In Mobile Networks, earnings focus on the end of the year

In line with Nokia's expectations, the year began in Mobile Networks with focus on the major 5G projects in India. At the same time, net sales were falling in North America, as operators were destocking after the strong 2022. In addition, the weakened economic outlook has brought more uncertainty to investments in the short term. In Europe, the demand outlook has remained good and the double-digit net sales growth was partly supported by operators' Huawei changes.

In terms of profitability, Nokia is aiming for 7-10% EBIT in Mobile Networks this year (Q1'23: 5.3%). Due to the large projects in India, the seasonality of profitability will be stronger than in recent years and earnings will concentrate on H2. Then, Nokia also expects the North American market to improve, which will support margin development.

Estimates MEUR / EUR	Q1'22	Q1'23	Q1'23e	Q1'23e	Consensus		Difference (%)	2023e
	Comparison	Actualized	Inderes	Consensus	Low	High	Act. vs. inderes	Inderes
Revenue	5348	5859	5817	5720	5551	5932	1%	25802
EBIT (adj.)	583	479	515	556	470	657	-7%	3098
EBIT	354	426	395	432	344	576	8%	2685
PTP	256	401	396	424	341	576	1%	2664
EPS (adj.)	0.07	0.06	0.07	0.07	0.06	0.09	-17%	0.41
EPS (reported)	0.04	0.05	0.05	0.06	0.04	0.08	-5%	0.36
Revenue growth-%	5.4 %	9.6 %	8.8 %	7.0 %	3.8 %	10.9 %	0.8 pp	3.6 %
EBIT-% (adj.)	10.9 %	8.2 %	8.9 %	9.7 %	8.5 %	11.1 %	-0.7 pp	12.0 %

Source: Inderes & Infront (consensus)

# Network Infrastructure offset the softness of the other units 2/ 2

In Enterprise networks, Nokia's growth rate was as high as 62% in Q1 and Nokia again won several new customers. In Q1, the share of enterprise customers in net sales was 9.6% so the strong growth is not yet reflected particularly much in Group figures. Nokia expects strong double-digit growth in enterprise customers in the full year.

## Network Infrastructure is generating very strong earnings

Network Infrastructure again continued to develop strongly and better than we expected, as net sales in constant currency grew by 13% on top of the already strong comparison period. The development was particularly strong in optical networks (+45%), where Nokia reported a pent-up demand as supply chains normalized. Good product distribution in the quarter also supported the gross margin and logistics costs decreased from the comparison period. Thus, the unit's EBIT improved by nearly 6 percentage points to 15.3%. Nokia, however, reined in the expectations for the rest of the year as the comparison periods are increasingly stronger and similar development as in Q1 should not be expected. Overall, Network Infrastructure is currently in excellent shape and Nokia's competitive product portfolio produces results in a good demand environment. The company's EBIT margin is expected to 11-14% this year.

## Weak Q1 for Cloud and Network Services

The performance of Cloud and Network Services was weaker than we expected in Q1. As expected, net sales grew by 3%, but the EBIT margin (-2.6%) was in the red against expectations. The gross

margin of the unit (Q1'23: 32.8% vs. Q1'22: 38.6%) weakened significantly as the focus of net sales was on hardware rather than software. In addition, the unit's EBIT is, like in previous quarters, depressed by increased investments in selected growth areas, such as private wireless networks. In the full year, the unit still targets an EBIT of 5.5-8.5%, which due to seasonality will focus on Q4.

## Soft quarter in Nokia Technologies partly due to timing

In Nokia Technologies, the company has not managed to renew license agreements with Oppo and Vivo in Q1. In addition, the option utilized by Microsoft in its long-term contract at the end of last year was seen as lower license income in Q1 (this resulted in non-recurring income of 305 MEUR in Q4). Thus, the unit's EBIT declined by 32% to EUR 149 million and was below our expectations that had not fully taken into account the effects of the Microsoft agreement.

In terms of ongoing patent disputes, Nokia again stressed that it prioritizes securing the value of its IPR over time pressure. However, the assumption is still that the matter will be settled during 2023. In January, Nokia signed a new long-term licensing agreement with Samsung and the company is in the process of renewing its mobile phone patents. In its outlook, Nokia expects Nokia Technologies' EBIT to remain broadly stable (2022: EUR 1.2 bn), once the ongoing litigation/re negotiations are concluded. Looking a little further ahead, Nokia is also aiming to maintain a stable EBIT.

## Small divestments carried out in Q1

In connection with the Q1 report, Nokia reported some divestments of its smaller businesses that have little impact on the company's figures. In December 2022, Radio frequency systems (RFS) and Amphenol signed an agreement whereby RFS sold the North American cable and global base station antenna business to Amphenol. The transaction is expected to be completed in Q2'23, if certain normal terms are met. In addition, RFS also streamlines its offering and ramps-down certain business segments this year.

The VitalQIP business, which was part of the Cloud and Network Services, was sold to Cygna Labs in Q1. The deal price and other information about the transaction were not disclosed.

According to the Q1 report, on April 7, 2023, Nokia signed an agreement to sell its 51% holding in the Hong Kong joint venture, TD Tech Holding Limited to New East New Materials for an estimated deal price of EUR 285 million. The book value of TD Tech in the consolidated balance sheet was EUR 70 million on March 31, 2023. The estimated sales gain of EUR 215 million will be recognized in other operating income. There are conditions for the transaction, such as the pre-emption of a joint venture partner, and the sale will take place only if and when these conditions are met. According to Nokia, this may take some time.

# Earnings estimates revised downward

## Outlook unchanged

As expected, Nokia reiterated its outlook for this year, but revised its net sales range to EUR 24.6-26.2 billion in light of exchange rate changes (previous EUR 24.9-26.5 bn). Comparable EBIT is still expected to be 11.5-14.0%. However, the company commented that it started to see signs that the general economic environment influences customers' purchasing behavior. The need to invest in 5G and fixed networks has not disappeared and Nokia believes that the uncertainty is related more to the timing of investments. Therefore, the company expects its profitability to focus more on H2 this year. Then, the economies of scale from India's growing volumes and the improvement in North America from the Q1 slump will support the profitability of Mobile Networks. Presumably, patent disputes will also be settled at that time, which is key to the outlook of

Nokia Technologies. We expect these contracts to be concluded with Oppo and Vivo during Q3.

## Small downward revisions in estimates

Based on the Q1 report, we revised our earnings estimates for the coming years 3-4% downward. Using the midpoint of Nokia's guidance range the comparable EBIT is around EUR 3.2 billion and our estimate (net sales EUR 25.8 bn, EBIT: 12.0%) is now approximately EUR 100 million below this.

For 2024-2025, we expect almost stable net sales growth and an improvement in the EBIT margin to 12.5-12.8%, driven by Mobile Networks. Our estimates are now clearly below Nokia's long-term targets (EBIT > 14%)

In terms of free cash flow, Nokia is targeting a long-term conversion rate of 55-85% of comparable EBIT.

At our projected earnings level for 2024-2026 and a cash flow ratio of around 66-72%, Nokia would generate around EUR 2.3-2.4 billion in free cash flow annually.

Estimate revisions	2023e		Change	2024e		Change	2025e		Change	
	MEUR / EUR	Old		New	Old		New	Old		New
Revenue		25773	25802	0%	25881	25933	0%	26158	26212	0%
EBITDA		3754	3734	-1%	3955	3838	-3%	4088	4011	-2%
EBIT (exc. NRIs)		3190	3098	-3%	3371	3246	-4%	3443	3351	-3%
EBIT		2710	2685	-1%	2971	2846	-4%	3143	3051	-3%
PTP		2715	2664	-2%	2901	2776	-4%	3073	2981	-3%
EPS (excl. NRIs)		0.43	0.41	-4%	0.45	0.43	-4%	0.46	0.44	-3%
DPS		0.18	0.18	0%	0.22	0.22	0%	0.26	0.26	0%

Source: Inderes

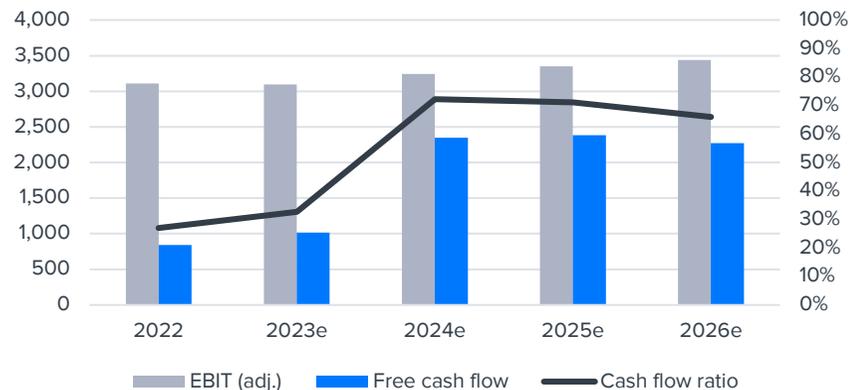
# Estimate revisions

Estimate revisions	2023e	2023e	Change	2024e	2024e	Change	2025e	2025e	Change
MEUR / EUR	Old	New	%	Old	New	%	Old	New	%
<b>Revenue</b>	<b>25773</b>	<b>25802</b>	<b>0%</b>	<b>25881</b>	<b>25933</b>	<b>0%</b>	<b>26158</b>	<b>26212</b>	<b>0%</b>
Mobile Networks	11313	11324	0%	11426	11438	0%	11541	11552	0%
Network Infrastructure	9209	9365	2%	9209	9365	2%	9301	9458	2%
Nokia Technologies	1555	1457	-6%	1446	1355	-6%	1446	1355	-6%
Cloud and Network Services	3451	3452	0%	3554	3556	0%	3625	3627	0%
Others	280	228	-19%	280	250	-11%	280	250	-11%
NRIs/non-IFRS adjustments	-35.0	-24.0	-31%	-35.0	-30.0	-14%	-35.0	-30.0	-14%
<b>EBITDA</b>	<b>3754</b>	<b>3734</b>	<b>-1%</b>	<b>3955</b>	<b>3838</b>	<b>-3%</b>	<b>4088</b>	<b>4011</b>	<b>-2%</b>
<b>EBIT (exc. NRIs)</b>	<b>3190</b>	<b>3098</b>	<b>-3%</b>	<b>3371</b>	<b>3246</b>	<b>-4%</b>	<b>3443</b>	<b>3351</b>	<b>-3%</b>
<b>EBIT</b>	<b>2710</b>	<b>2685</b>	<b>-1%</b>	<b>2971</b>	<b>2846</b>	<b>-4%</b>	<b>3143</b>	<b>3051</b>	<b>-3%</b>
Mobile Networks	933	938	0%	1074	1052	-2%	1108	1097	-1%
Network Infrastructure	1170	1273	9%	1179	1199	2%	1191	1211	2%
Nokia Technologies	1171	1071	-9%	1157	1084	-6%	1157	1084	-6%
Cloud and Network Services	240	191	-21%	281	231	-18%	308	279	-9%
Others	-324	-374	15%	-320	-320	0%	-320	-320	0%
NRIs/non-IFRS adjustments	-480	-413	-14%	-400	-400	0%	-300	-300	0%
<b>PTP</b>	<b>2715</b>	<b>2664</b>	<b>-2%</b>	<b>2901</b>	<b>2776</b>	<b>-4%</b>	<b>3073</b>	<b>2981</b>	<b>-3%</b>
<b>EPS (adjusted)</b>	<b>0.43</b>	<b>0.41</b>	<b>-4%</b>	<b>0.45</b>	<b>0.43</b>	<b>-4%</b>	<b>0.46</b>	<b>0.44</b>	<b>-3%</b>
Dividend / share	0.18	0.18	0%	0.22	0.22	0%	0.26	0.26	0%

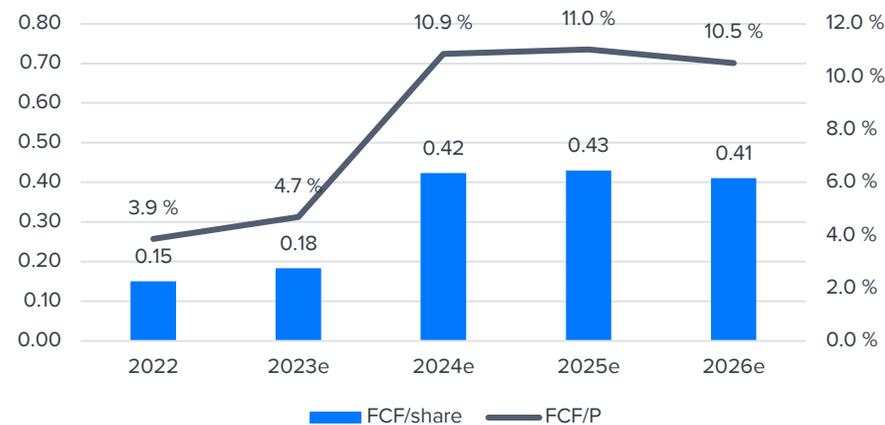
Source: Inderes

# Free cash flow estimates

Development of Nokia's comparable EBIT and free cash flow



Nokia's free cash flow per share and FCF/P



Source: Inderes

## Nokia's 2023 guidance and financial targets

	2023	2024-2026
Net sales	EUR 24.6-26.2 billion (growth in constant currency 2-8%)	Faster growth than the market
EBIT % (adj.)	11.5-14.0%	At least 14 %
Free cash flow of comparable EBIT	20-50%	55-85%
<b>Division</b>	<b>Net sales growth in 2023</b>	<b>EBIT-% 2023</b>
Mobile Networks	Faster than the Group	7.0-10.0%
Network Infrastructure	At or below Group level	11.0-14.0%
Cloud and Network services	At or below Group level	5.5-8.5%
Nokia Technologies		Mainly stable EBIT (2022: EUR 1.2 bn)

Source: Nokia, Inderes

# Valuation

## Sum of the parts indicate upside in the stock

We approach Nokia's valuation partly through a sum of the parts calculation, as the company can be divided into four independent operations corresponding to the current unit structure. We price each unit separately based on our 2023 estimates. We have also considered the cash flow impact of restructuring, net cash and the estimated present value of other businesses and group expenses.

We value Nokia Technologies at 7x-9x EV/EBIT. The value of the unit is thus EUR 7.5-9.6 billion. The growth outlook for Nokia Technologies is modest, but in the medium term, stable cash flows support value.

We value the extremely well-performing Network Infrastructure with an 8.0-9.0x EV/EBIT. The value of the unit is thus EUR 10.2-11.5 billion. The unit has grown very strongly in recent years and profitability has already reached a very good level. Thus, in the future, it will be even more challenging to generate earnings growth on top of strong comparison periods.

Cloud and Network Services, which are currently still underperforming, are valued at an EV/EBIT multiple of 6.0-8.0x, resulting in a unit value of EUR 1.1-1.5 billion. In addition to weak profitability, the current sluggish growth supports moderate multiples.

For Mobile Networks, we have assumed a 7.5-9.5x EV/EBIT, making the unit worth EUR 7.0-8.9 billion. Our 2023 estimate for the unit now expects an EBIT margin of 8.3%. If the unit were to reach its long-term profitability target (>10%), there would be some upside in the value. Especially if the improved margin is achieved through increased net sales.

With these assumptions, the sum of the parts in 2023 will be EUR 30 billion (EUR 5.4 per share), with a range

of EUR 26-34 billion (EUR 4.8-6.1 per share). Thus, considering the sum of the parts, there is considerable upside in the share.

## Nokia's hefty net cash and strengthening cash flow enable abundant profit distribution in the next few years

Considering Nokia's current net cash (17% of 2023e net sales) and its target level (10-15%), the company should start to distribute most of its profits back to the owners. If Nokia decided to distribute its entire free cash flow back to shareholders, this would mean a dividend yield of around 10-11% with our 2024-2026 estimates. In addition, roughly EUR 0.2-0.4 per share could be paid as extra dividend from the overcapitalized balance sheet (dividend yield 5-11%). Some of the profits will probably be returned through share buybacks, so the dividend yield will not in practice be quite this high. However, we find it highly justified to consider Nokia's free cash flow largely as capital that will be directly returned to its shareholders. Of course, the company can also make smaller complementary acquisitions, which means that part of the capital will be allocated to these in certain years. We do not expect the free cash-flow rate to remain above 10%, but that the share price increase will narrow it somewhat. With our updated target price, the free cash flow yield for the next few years would roughly correspond to the required return we apply for Nokia (8.6%). Our estimates are also more moderate than Nokia's own targets, so in a good scenario there could be even more to distribute under the line.

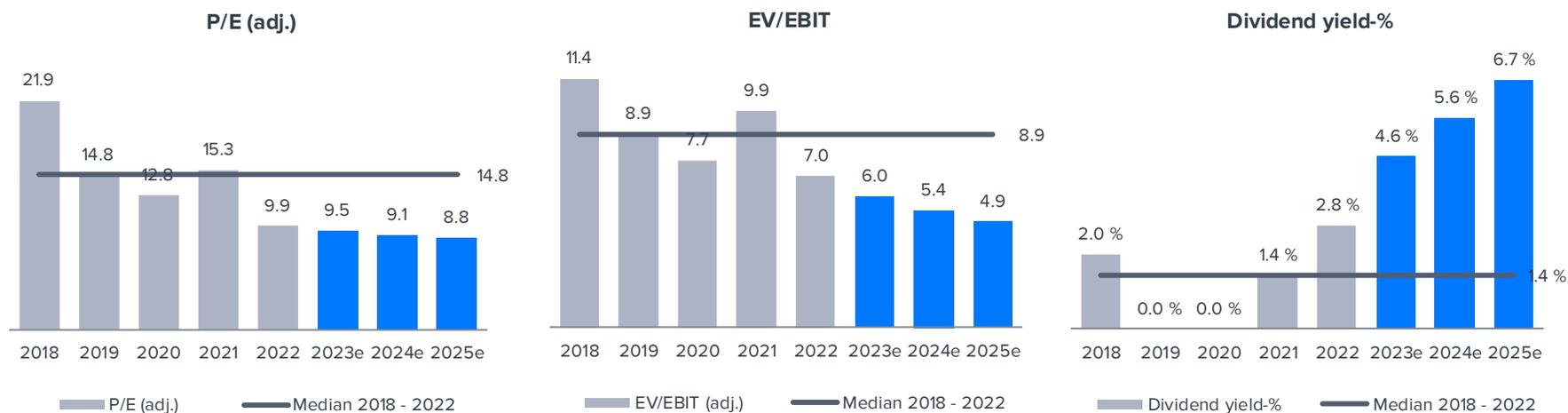
## Sum of the parts in 2023

Nokia Technologies	Pessimistic	Neutral	Optimistic
Variable: Adj. EBIT 2023e	1.1	1.1	1.1
X valuation multiple	7.0	8.0	9.0
<b>EV</b>	<b>7.5</b>	<b>8.6</b>	<b>9.6</b>
<i>Per share (EUR)</i>	<i>1.4</i>	<i>1.5</i>	<i>1.7</i>
Network Infrastructure	Pessimistic	Neutral	Optimistic
Variable: Adj. EBIT 2023e	1.3	1.3	1.3
X valuation multiple	8.0	8.5	9.0
<b>EV</b>	<b>10.2</b>	<b>10.8</b>	<b>11.5</b>
<i>Per share (EUR)</i>	<i>1.8</i>	<i>2.0</i>	<i>2.1</i>
Cloud and Network services	Pessimistic	Neutral	Optimistic
Variable: Adj. EBIT 2023e	0.2	0.2	0.2
X valuation multiple	6.0	7.0	8.0
<b>EV</b>	<b>1.1</b>	<b>1.3</b>	<b>1.5</b>
<i>Per share (EUR)</i>	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>
Mobile Networks	Pessimistic	Neutral	Optimistic
Variable: Adj. EBIT 2023e	0.9	0.9	0.9
X valuation multiple	7.5	8.5	9.5
<b>EV</b>	<b>7.0</b>	<b>8.0</b>	<b>8.9</b>
<i>Per share (EUR)</i>	<i>1.3</i>	<i>1.4</i>	<i>1.6</i>
Total	Pessimistic	Neutral	Optimistic
Aggregate EV	25.9	28.7	31.5
Other operating and group costs (NPV)	-3.5	-3.0	-2.0
Net cash at the end of 2022	4.8	4.8	4.8
Costs for restructuring	-0.7	-0.6	-0.5
Sum of the parts total	26	30	34
<i>Per share (EUR)</i>	<i>4.8</i>	<i>5.4</i>	<i>6.1</i>

# Valuation table

Valuation	2018	2019	2020	2021	2022	2023e	2024e	2025e	2026e
Share price	5.03	3.30	3.15	5.57	4.33	3.90	3.90	3.90	3.90
Number of shares, millions	5593	5606	5617	5629	5590	5540	5540	5540	5540
Market cap	28133	18476	17701	31378	24189	21610	21610	21610	21610
EV	24912	17799	15938	27543	21648	18725	17429	16318	15522
P/E (adj.)	21.9	14.8	12.8	15.3	9.9	9.5	9.1	8.8	8.5
P/E	neg.	>100	neg.	19.3	5.7	11.0	10.4	9.7	9.0
P/FCF	neg.	neg.	11.1	neg.	neg.	30.3	9.2	9.1	9.5
P/B	1.8	1.2	1.4	1.8	1.1	1.0	0.9	0.9	0.8
P/S	1.2	0.8	0.8	1.4	1.0	0.8	0.8	0.8	0.8
EV/Sales	1.1	0.8	0.7	1.2	0.9	0.7	0.7	0.6	0.6
EV/EBITDA	17.9	8.3	7.9	8.5	6.3	5.0	4.5	4.1	3.9
EV/EBIT (adj.)	11.4	8.9	7.7	9.9	7.0	6.0	5.4	4.9	4.5
Payout ratio (%)	neg.	0.0 %	0.0 %	27.7 %	15.8 %	50.6 %	58.7 %	64.6 %	64.8 %
Dividend yield-%	2.0 %	0.0 %	0.0 %	1.4 %	2.8 %	4.6 %	5.6 %	6.7 %	7.2 %

Source: Inderes



# Peer group valuation

Peer group valuation	Market cap	EV	EV/EBIT		EV/EBITDA		EV/S		P/E		Dividend yield-%		P/B
Company	MEUR	MEUR	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e
Qualcomm	120612	128495	11.2	9.3	10.3	8.7	3.7	3.3	12.6	10.4	2.6	2.7	6.5
Ciena	6399	6771	12.7	10.0	11.0	8.8	1.7	1.6	16.5	12.7			2.4
Cisco	179553	167531	9.8	9.3	9.0	8.6	3.3	3.1	12.8	11.9	3.2	3.3	4.4
Juniper Networks	9313	9766	11.0	9.9	9.1	8.4	1.9	1.8	13.8	12.3	2.7	2.8	2.1
Motorola	44145	48439	20.8	18.8	18.4	16.6	5.5	5.2	25.7	23.1	1.2	1.2	55.1
ZTE	20779	20935	14.7	13.1	10.7	9.6	1.2	1.0	10.8	9.6	2.3	2.8	1.5
Ericsson	16724	16534	7.5	5.5	5.7	4.6	0.7	0.7	10.6	8.2	4.9	5.3	1.4
Amdocs	10356	10318	13.1	12.2	10.5	10.0	2.3	2.2	15.9	14.4	1.8	1.9	3.1
CommScope	905	10244	8.8	7.9	7.9	7.2	1.2	1.2	2.5	2.0			
Oracle	236043	312244	16.4	15.1	13.4	12.3	6.9	6.4	19.0	17.2	1.3	1.5	
Viavi	1852	2045	12.2	9.8	9.3	8.0	2.0	1.9	15.7	12.4			3.1
<b>Nokia (Inderes)</b>	<b>21610</b>	<b>18725</b>	<b>6.0</b>	<b>5.4</b>	<b>5.0</b>	<b>4.5</b>	<b>0.7</b>	<b>0.7</b>	<b>9.5</b>	<b>9.1</b>	<b>4.6</b>	<b>5.6</b>	<b>1.0</b>
<b>Average</b>			<b>12.6</b>	<b>11.0</b>	<b>10.5</b>	<b>9.3</b>	<b>2.7</b>	<b>2.6</b>	<b>14.2</b>	<b>12.2</b>	<b>2.5</b>	<b>2.7</b>	<b>8.8</b>
<b>Median</b>			<b>12.2</b>	<b>9.9</b>	<b>10.3</b>	<b>8.7</b>	<b>2.0</b>	<b>1.9</b>	<b>13.8</b>	<b>12.3</b>	<b>2.4</b>	<b>2.7</b>	<b>3.1</b>
<b>Diff-% to median</b>			<b>-50%</b>	<b>-46%</b>	<b>-51%</b>	<b>-48%</b>	<b>-64%</b>	<b>-65%</b>	<b>-32%</b>	<b>-26%</b>	<b>90%</b>	<b>106%</b>	<b>-69%</b>

Source: Refinitiv / Inderes

# Income statement

Income statement	2021	Q1'22	Q2'22	Q3'22	Q4'22	2022	Q1'23	Q2'23e	Q3'23e	Q4'23e	2023e	2024e	2025e	2026e
<b>Revenue</b>	<b>22202</b>	<b>5348</b>	<b>5872</b>	<b>6242</b>	<b>7449</b>	<b>24911</b>	<b>5859</b>	<b>6085</b>	<b>6600</b>	<b>7259</b>	<b>25802</b>	<b>25933</b>	<b>26212</b>	<b>26495</b>
Mobile Networks	9717	2268	2592	2851	2960	10671	2567	2800	2908	3049	11324	11438	11552	11667
Network Infrastructure	7674	1974	2153	2211	2709	9047	2248	2175	2233	2709	9365	9365	9458	9553
Nokia Technologies	1502	306	305	305	679	1595	242	280	580	355	1457	1355	1355	1355
Cloud and Network Services	3089	736	754	801	1060	3351	760	776	825	1092	3452	3556	3627	3700
Others	257	76	76	84	59	295	48	60	60	60	228	250	250	250
NRIs/non-IFRS adjustments	-37	-12	-8	-10	-18	-48	-6	-6	-6	-6	-24	-30	-30	-30
<b>EBITDA</b>	<b>3253</b>	<b>628</b>	<b>847</b>	<b>806</b>	<b>1178</b>	<b>3458</b>	<b>692</b>	<b>694</b>	<b>1130</b>	<b>1218</b>	<b>3734</b>	<b>3838</b>	<b>4011</b>	<b>3948</b>
Depreciation	-1095	-274	-282	-288	-296	-1140	-266	-261	-261	-261	-1049	-992	-960	-708
<b>EBIT (excl. NRI)</b>	<b>2775</b>	<b>583</b>	<b>714</b>	<b>658</b>	<b>1155</b>	<b>3109</b>	<b>479</b>	<b>553</b>	<b>989</b>	<b>1077</b>	<b>3098</b>	<b>3246</b>	<b>3351</b>	<b>3441</b>
<b>EBIT</b>	<b>2158</b>	<b>354</b>	<b>565</b>	<b>518</b>	<b>882</b>	<b>2318</b>	<b>426</b>	<b>433</b>	<b>869</b>	<b>957</b>	<b>2685</b>	<b>2846</b>	<b>3051</b>	<b>3241</b>
Mobile Networks	765	171	291	277	201	940	137	174	276	351	938	1052	1097	1143
Network Infrastructure	784	195	247	228	432	1102	344	274	270	385	1273	1199	1211	1223
Nokia Technologies	1185	220	217	207	564	1208	149	185	478	259	1071	1084	1084	1084
Cloud and Network Services	166	20	-6	16	147	177	-20	2	45	164	191	231	279	311
Others	-125	-23	-36	-71	-189	-318	-131	-81	-81	-81	-374	-320	-320	-320
NRIs/non-IFRS adjustments	-617	-229	-149	-140	-273	-791	-53	-120	-120	-120	-413	-400	-300	-200
Net financial items	-241	-72	-18	12	-30	-108	-19	0	0	0	-19	-75	-75	-50
<b>PTP</b>	<b>1926</b>	<b>256</b>	<b>541</b>	<b>509</b>	<b>878</b>	<b>2184</b>	<b>401</b>	<b>434</b>	<b>870</b>	<b>958</b>	<b>2664</b>	<b>2776</b>	<b>2981</b>	<b>3196</b>
Taxes	-272	-79	-74	-93	2271	2026	-111	-109	-218	-240	-677	-693	-744	-798
Minority interest	-22	-7	-3	-1	2	-9	-10	-2	-2	-2	-16	-6	-6	-6
<b>Net earnings</b>	<b>1623</b>	<b>212</b>	<b>457</b>	<b>427</b>	<b>3154</b>	<b>4250</b>	<b>279</b>	<b>324</b>	<b>651</b>	<b>717</b>	<b>1970</b>	<b>2077</b>	<b>2231</b>	<b>2392</b>
<b>EPS (adj.)</b>	<b>0.37</b>	<b>0.07</b>	<b>0.10</b>	<b>0.10</b>	<b>0.17</b>	<b>0.44</b>	<b>0.06</b>	<b>0.07</b>	<b>0.13</b>	<b>0.15</b>	<b>0.41</b>	<b>0.43</b>	<b>0.44</b>	<b>0.46</b>
<b>EPS (rep.)</b>	<b>0.29</b>	<b>0.04</b>	<b>0.08</b>	<b>0.08</b>	<b>0.56</b>	<b>0.76</b>	<b>0.05</b>	<b>0.06</b>	<b>0.12</b>	<b>0.13</b>	<b>0.36</b>	<b>0.37</b>	<b>0.40</b>	<b>0.43</b>

Key figures	2021	Q1'22	Q2'22	Q3'22	Q4'22	2022	Q1'23	Q2'23e	Q3'23e	Q4'23e	2023e	2024e	2025e	2026e
<b>Revenue growth-%</b>	1.6 %	5.4 %	10.5 %	15.6 %	16.1 %	12.2 %	9.6 %	3.6 %	5.7 %	-2.6 %	3.6 %	0.5 %	1.1 %	1.1 %
<b>Adjusted EBIT growth-%</b>	33.4 %	5.8 %	4.5 %	3.9 %	27.1 %	12.0 %	-17.8 %	-22.5 %	50.4 %	-6.8 %	-0.4 %	4.8 %	3.2 %	2.7 %
<b>EBITDA-%</b>	14.7 %	11.7 %	14.4 %	12.9 %	15.8 %	13.9 %	11.8 %	11.4 %	17.1 %	16.8 %	14.5 %	14.8 %	15.3 %	14.9 %
<b>Adjusted EBIT-%</b>	12.5 %	10.9 %	12.2 %	10.5 %	15.5 %	12.5 %	8.2 %	9.1 %	15.0 %	14.8 %	12.0 %	12.5 %	12.8 %	13.0 %
<b>Net earnings-%</b>	7.3 %	4.0 %	7.8 %	6.8 %	42.3 %	17.1 %	4.8 %	5.3 %	9.9 %	9.9 %	7.6 %	8.0 %	8.5 %	9.0 %

Source: Inderes

# Balance sheet

Assets	2021	2022	2023e	2024e	2025e
<b>Non-current assets</b>	<b>22174</b>	<b>23886</b>	<b>23474</b>	<b>22969</b>	<b>22476</b>
Goodwill	5431	5667	5667	5667	5667
Intangible assets	3342	2472	2126	1787	1420
Tangible assets	2808	2944	2878	2712	2586
Associated companies	243	199	199	199	199
Other investments	758	828	828	828	828
Other non-current assets	8320	7942	7942	7942	7942
Deferred tax assets	1272	3834	3834	3834	3834
<b>Current assets</b>	<b>19597</b>	<b>20266</b>	<b>21880</b>	<b>21914</b>	<b>21861</b>
Inventories	2392	3265	3561	3475	3460
Other current assets	0.0	0.0	0.0	0.0	0.0
Receivables	7601	7839	9031	9103	9227
Cash and equivalents	9604	9162	9289	9336	9174
<b>Balance sheet total</b>	<b>40049</b>	<b>42943</b>	<b>44208</b>	<b>43899</b>	<b>43537</b>

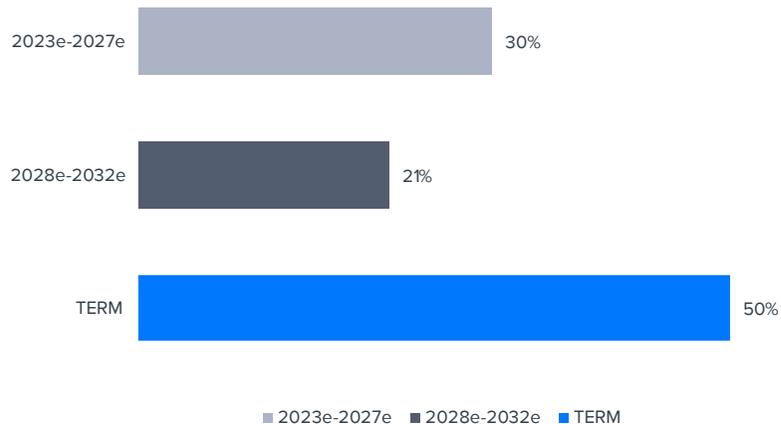
Source: Inderes

Liabilities & equity	2021	2022	2023e	2024e	2025e
<b>Equity</b>	<b>17462</b>	<b>21426</b>	<b>22725</b>	<b>23805</b>	<b>24818</b>
Share capital	246	246	246	246	246
Retained earnings	-2537	1375	2674	3754	4767
Hybrid bonds	0.0	0.0	0.0	0.0	0.0
Revaluation reserve	4219	3905	3905	3905	3905
Other equity	15432	15807	15807	15807	15807
Minorities	102	93	93	93	93
<b>Non-current liabilities</b>	<b>11410</b>	<b>9556</b>	<b>9020</b>	<b>7886</b>	<b>6734</b>
Deferred tax liabilities	282	332	332	332	332
Provisions	1569	1435	1000	800	600
Long term debt	5361	5107	5006	4072	3120
Convertibles	0.0	0.0	0.0	0.0	0.0
Other long term liabilities	4198	2682	2682	2682	2682
<b>Current liabilities</b>	<b>11177</b>	<b>11961</b>	<b>12464</b>	<b>12208</b>	<b>11985</b>
Short term debt	301	1450	1369	1057	740
Payables	10876	10511	11095	11151	11245
Other current liabilities	0.0	0.0	0.0	0.0	0.0
<b>Balance sheet total</b>	<b>40049</b>	<b>42943</b>	<b>44208</b>	<b>43899</b>	<b>43537</b>

# DCF calculation

DCF model	2022	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	TERM
Revenue growth-%	12.2 %	3.6 %	0.5 %	1.1 %	1.1 %	1.5 %	1.5 %	1.5 %	1.5 %	1.5 %	1.5 %	1.5 %
EBIT-%	9.3 %	10.4 %	11.0 %	11.6 %	12.2 %	11.5 %	11.0 %	10.5 %	10.0 %	10.0 %	9.5 %	9.5 %
<b>EBIT (operating profit)</b>	<b>2318</b>	<b>2685</b>	<b>2846</b>	<b>3051</b>	<b>3241</b>	<b>3093</b>	<b>3003</b>	<b>2909</b>	<b>2812</b>	<b>2854</b>	<b>2752</b>	
+ Depreciation	1140	1049	992	960	708	690	677	668	661	656	653	
- Paid taxes	-486	-677	-693	-744	-798	-761	-738	-691	-671	-688	-668	
- Tax, financial expenses	-27	-5	-19	-19	-13	-13	-13	-36	-32	-25	-20	
+ Tax, financial income	0	0	0	0	0	0	0	0	0	0	0	
- Change in working capital	-1476	-904	70	-15	-16	-76	-78	-80	-82	-55	-56	
<b>Operating cash flow</b>	<b>1469</b>	<b>2149</b>	<b>3197</b>	<b>3233</b>	<b>3123</b>	<b>2934</b>	<b>2851</b>	<b>2770</b>	<b>2689</b>	<b>2742</b>	<b>2661</b>	
+ Change in other long-term liabilities	-1650	-435	-200	-200	-200	-200	-200	0	0	0	0	
- Gross CAPEX	-847	-700	-650	-650	-650	-650	-650	-650	-650	-650	-655	
<b>Free operating cash flow</b>	<b>-1028</b>	<b>1014</b>	<b>2347</b>	<b>2383</b>	<b>2273</b>	<b>2084</b>	<b>2001</b>	<b>2120</b>	<b>2039</b>	<b>2092</b>	<b>2006</b>	
+/- Other	49	-301	0	0	0	0	0	0	0	0	0	
FCFF	-979	713	2347	2383	2273	2084	2001	2120	2039	2092	2006	28755
<b>Discounted FCFF</b>		<b>673</b>	<b>2040</b>	<b>1908</b>	<b>1676</b>	<b>1415</b>	<b>1252</b>	<b>1221</b>	<b>1081</b>	<b>1022</b>	<b>903</b>	<b>12940</b>
Sum of FCFF present value		26131	25458	23417	21510	19834	18419	17167	15946	14864	13842	12940
<b>Enterprise value DCF</b>		<b>26131</b>										
- Interesting bearing debt		-6557										
+ Cash and cash equivalents		9162										
-Minorities		-89										
-Dividend/capital return		0										
<b>Equity value DCF</b>		<b>28708</b>										
<b>Equity value DCF per share</b>		<b>5.2</b>										

Cash flow distribution



## WACC

Tax-% (WACC)	25.0 %
Target debt ratio (D/(D+E))	0.0 %
Cost of debt	4.0 %
Equity Beta	1.3
Market risk premium	4.75%
Liquidity premium	0.00%
Risk free interest rate	2.5 %
<b>Cost of equity</b>	<b>8.6 %</b>
<b>Weighted average cost of capital (WACC)</b>	<b>8.6 %</b>

Source: Inderes

# Summary

Income statement	2020	2021	2022	2023e	2024e	Per share data	2020	2021	2022	2023e	2024e
Revenue	21852	22202	24911	<b>25802</b>	<b>25933</b>	EPS (reported)	-0.45	0.29	0.76	<b>0.36</b>	<b>0.37</b>
EBITDA	2017	3253	3458	<b>3734</b>	<b>3838</b>	EPS (adj.)	0.25	0.37	0.44	<b>0.41</b>	<b>0.43</b>
EBIT	885	2158	2318	<b>2685</b>	<b>2846</b>	OCF / share	0.38	0.73	0.26	<b>0.39</b>	<b>0.58</b>
PTP	743	1926	2184	<b>2664</b>	<b>2776</b>	FCF / share	0.28	-0.16	-0.18	<b>0.13</b>	<b>0.42</b>
Net Income	-2523	1623	4250	<b>1970</b>	<b>2077</b>	Book value / share	2.22	3.08	3.82	<b>4.09</b>	<b>4.28</b>
Extraordinary items	-1196	-617	-791	<b>-413</b>	<b>-400</b>	Dividend / share	0.00	0.08	0.12	<b>0.18</b>	<b>0.22</b>
Balance sheet	2020	2021	2022	2023e	2024e	Growth and profitability	2020	2021	2022	2023e	2024e
Balance sheet total	36191	40049	42943	<b>44208</b>	<b>43899</b>	Revenue growth-%	-6%	2%	12%	<b>4%</b>	<b>1%</b>
Equity capital	12545	17462	21426	<b>22725</b>	<b>23805</b>	EBITDA growth-%	-6%	61%	6%	<b>8%</b>	<b>3%</b>
Goodwill	5074	5431	5667	<b>5667</b>	<b>5667</b>	EBIT (adj.) growth-%	4%	33%	12%	<b>0%</b>	<b>5%</b>
Net debt	-1789	-3942	-2605	<b>-2915</b>	<b>-4207</b>	EPS (adj.) growth-%	10%	49%	20%	<b>-6%</b>	<b>4%</b>
Cash flow	2020	2021	2022	2023e	2024e	EBITDA-%	9.2 %	14.7 %	13.9 %	<b>14.5 %</b>	<b>14.8 %</b>
EBITDA	2017	3253	3458	<b>3734</b>	<b>3838</b>	EBIT (adj.)-%	9.5 %	12.5 %	12.5 %	<b>12.0 %</b>	<b>12.5 %</b>
Change in working capital	225	608	-1476	<b>-904</b>	<b>70</b>	EBIT-%	4.0 %	9.7 %	9.3 %	<b>10.4 %</b>	<b>11.0 %</b>
Operating cash flow	2118	4127	1469	<b>2149</b>	<b>3197</b>	ROE-%	-18.2 %	10.9 %	22.0 %	<b>9.0 %</b>	<b>9.0 %</b>
CAPEX	-22	-4111	-847	<b>-700</b>	<b>-650</b>	ROI-%	4.6 %	10.3 %	9.0 %	<b>9.4 %</b>	<b>9.8 %</b>
Free cash flow	1599	-911	-979	<b>713</b>	<b>2347</b>	Equity ratio	34.7 %	43.6 %	49.9 %	<b>51.4 %</b>	<b>54.2 %</b>
						Gearing	-14.3 %	-22.6 %	-12.2 %	<b>-12.8 %</b>	<b>-17.7 %</b>
Valuation multiples	2020	2021	2022	2023e	2024e						
EV/S	0.7	1.2	0.9	<b>0.7</b>	<b>0.7</b>						
EV/EBITDA (adj.)	7.9	8.5	6.3	<b>5.0</b>	<b>4.5</b>						
EV/EBIT (adj.)	7.7	9.9	7.0	<b>6.0</b>	<b>5.4</b>						
P/E (adj.)	12.8	15.3	9.9	<b>9.5</b>	<b>9.1</b>						
P/B	1.4	1.8	1.1	<b>1.0</b>	<b>0.9</b>						
Dividend-%	0.0 %	1.4 %	2.8 %	<b>4.6 %</b>	<b>5.6 %</b>						

Lähde: Inderes

# ESG

## Taxonomy eligibility

Nokia estimates that its products are not generally included in taxonomy industries as of yet. As the taxonomy legislation is assumed to expand to cover new industries in the future, we will wait for the possible impact this will have on Nokia's taxonomy eligibility.

When determining the taxonomy eligibility, Nokia reports that it has followed strict interpretations regarding eligibility. This means, e.g., that in case of activities related to climate change mitigation, Nokia has only accepted solutions that are designed primarily to reduce greenhouse gas emissions.

Because taxonomy is still in its early stages, we do not see the low taxonomy eligibility percentages to have any direct short-term economic impact on, e.g., the availability of Nokia's financing or financing costs.

## Climate targets

Of the 6 climate targets set by Nokia, 5 have already been achieved or are developing in the right direction. However, in 2020-2022, the target of halving emissions throughout the value chain in scope 1, scope 2 and scope 3 emissions during 2019-2030 has not developed along the expected paths in linear terms. According to Nokia, there is no reason to expect linear development in reducing emissions, which is also justified in our view. As a whole, Nokia still considers achieving this target by 2030 possible.

Nokia's connectivity and digitalization solutions enable increased efficiency in other industries, which supports the reduction of emissions. At the same time, the company's own products have features that enable energy saving, e.g., for operators. Thus, in our

view, the company's current business supports the achievement of set climate targets. We do, however, consider the reduction of scope 3 emissions challenging if the green transition in the energy sector is not achieved in line with underlying assumptions.

Taxonomy eligibility	2021*	2022
Revenue	-	0%
OPEX	-	0%
CAPEX	-	2%

Taxonomy alignment	2021*	2022
Revenue	-	0%
OPEX	-	0%
CAPEX	-	0%

## Climate

Climate goal	Yes	Yes
Target according to Paris agreement (1.5 °C warming scenario)	Yes	Yes

\*figures are not comparable due to taxonomy development

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Reduce	The 12-month risk-adjusted expected shareholder return of the share is weak
Sell	The 12-month risk-adjusted expected shareholder return of the share is very weak

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## Recommendation history (>12 mo)

Date	Recommendation	Target	Share price
17-12-19	Accumulate	3.60 €	3.26 €
07-02-20	Reduce	3.60 €	3.70 €
08-04-20	Reduce	3.00 €	2.95 €
01-05-20	Reduce	3.20 €	3.32 €
01-08-20	Reduce	4.00 €	4.06 €
28-09-20	Accumulate	3.60 €	3.24 €
30-10-20	Buy	3.40 €	2.81 €
17-12-20	Accumulate	3.50 €	3.27 €
01-02-21	Reduce	3.50 €	3.96 €
05-02-21	Reduce	3.60 €	3.70 €
11-03-21	Accumulate	3.60 €	3.40 €
19-03-21	Accumulate	3.60 €	3.37 €
30-04-21	Accumulate	4.50 €	3.87 €
14-07-21	Accumulate	5.40 €	4.99 €
	<i>Analyst changed</i>		
29-07-21	Accumulate	5.80 €	5.18 €
29-10-21	Accumulate	5.90 €	5.02 €
12-01-22	Accumulate	6.20 €	5.44 €
04-02-22	Accumulate	6.00 €	5.17 €
08-03-22	Buy	5.20 €	4.33 €
29-04-22	Accumulate	5.40 €	4.66 €
22-07-22	Accumulate	5.70 €	5.01 €
21-10-22	Accumulate	5.30 €	4.39 €
11-01-23	Accumulate	5.30 €	4.56 €
27-01-23	Accumulate	5.30 €	4.38 €
21-04-23	Buy	4.80 €	3.90 €



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