

# Nokia

Company report

7/21/2023



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This report is a summary translation of the report “Vaisu tulokasvunäkymä raja nousuvaraa” published on 07/21/2023 at 7:40 am.

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# Sluggish earnings growth outlook limits upside

We reiterate our Accumulate recommendation and revise our target price to EUR 4.0 (was EUR 4.1), reflecting our slightly lower forecasts. Nokia's market does not seem to offer any substantial leverage for net sales growth in the coming years, which also makes profitability improvement challenging. In our view, the lack of earnings growth also limits the upside potential of the stock's low valuation multiples. Still, we expect the improved earnings performance of recent years to hold up reasonably well and, with improving cash flow in the coming years, Nokia's profit distribution should be abundant.

## No major surprises in Q2 figures after profit warning

Nokia's Q2 results were already known for the main lines with the preliminary data provided in the profit warning (net sales EUR 5.7 billion and EBIT 11%). In Mobile Networks, performance (growth: +5%, EBIT: 7.8%) was slightly better than expected, with large 5G projects in India offsetting a significant drop in volumes in North America but squeezing margins. In Network Infrastructure (-6%), growth slowed from a very strong comparison period, but profitability (EBIT 13.1%) remained at a very good level. The Nokia Technologies unit is still waiting for the patent disputes between Oppo and Vivo to be resolved, so that annual net sales would rise from the current level of around 1.1 billion (beginning of 2024) to closer to the target of 1.4-1.5 billion. In Cloud and Network Services, (growth: +2%, EBIT: 2.2%) the turnaround took small steps forward.

## In Mobile Networks and Network Infrastructure, net sales growth recedes quite sharply in H2

Nokia's outlook for this year, which was lowered last week, anticipates net sales of EUR 23.2-24.6 billion and a comparable operating profit of 11.5-13.0%. The outlook was cut, especially, for H2, which, according to Nokia, is due both to the deteriorating economic environment and customers lowering inventory levels. These factors will have a negative impact in particular on Network Infrastructure and Mobile Networks, where H2 net sales are expected to be around H1 levels. Typically, the end of the year has been seasonally stronger in both businesses, so the turn for the worse is quite sharp, implying a double-digit decline in net sales for H2. For Network Infrastructure in particular, Nokia believes the challenges are temporary and sees growth opportunities again next year. Nor is the 5G cycle seen to be over yet in North America, although operators are cautious with their investments in the short term. Overall, there is still considerable uncertainty hanging over Nokia's outlook for next year, and we do not believe that there is any basis for forecasting material growth at this point.

## Another notch of caution added to our estimates

We lowered our earnings estimates for the coming years by around 3-4%. Our estimate for the current year is now close to the middle of the guidance range for net sales (EUR 23.9 billion) and at the bottom of the range for EBIT (11.7%). As a whole, we expect Nokia's comparable operating result to be at a good level of around EUR 2.7-2.8 billion in the coming years, which would generate free cash flow of EUR 1.9-2.0 billion with a 64-71% cash conversion.

## Lack of earnings growth takes away the sharpest upward drivers

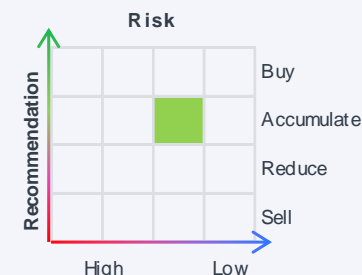
In the next few years, Nokia's valuation seems low (2023e-2024e adj. P/E ~10x and EV/EBIT ~6x), which we do not find fully justified despite the subdued earnings growth outlook. Starting from next year, we expect Nokia's profit distribution to be abundant, when, based on the company's overcapitalized balance sheet, virtually all free cash flow should be returned to the owners. With our 2024-2026 estimates, the free cash flow yield (~10%) becomes attractive, in addition to which we see the possibility of an EUR 0.10-0.30 extra dividend next spring.

## Recommendation

**Accumulate**  
(previous Accumulate)

**EUR 4.00**  
(previous EUR 4.10)

**Share price:**  
3.55



## Key figures

	2022	2023e	2024e	2025e
<b>Revenue</b>	24,911	23,877	24,034	24,293
<b>growth-%</b>	12%	-4%	1%	1%
<b>EBIT adj.</b>	3,109	2,785	2,743	2,816
<b>EBIT-% adj.</b>	12.5 %	11.7 %	11.4 %	11.6 %
<b>Net Income</b>	4,201	1,633	1,700	1,830
<b>EPS (adj.)</b>	0.44	0.36	0.36	0.37

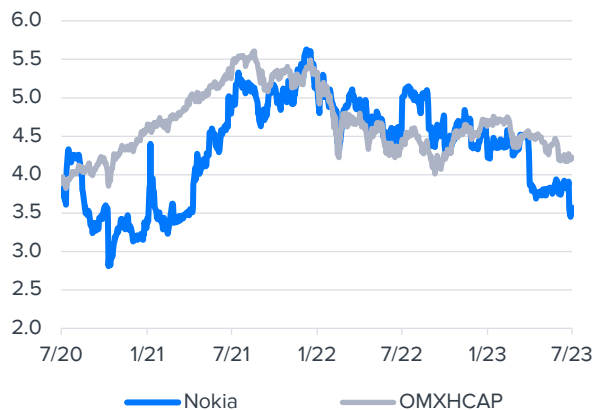
<b>P/E (adj.)</b>	9.9	9.9	9.8	9.6
<b>P/B</b>	1.1	0.9	0.9	0.8
<b>Dividend yield-%</b>	2.8 %	5.1 %	5.6 %	6.8 %
<b>EV/EBIT (adj.)</b>	7.0	6.1	5.8	5.4
<b>EV/EBITDA</b>	6.3	5.0	4.8	4.4
<b>EV/S</b>	0.9	0.7	0.7	0.6

Source: Inderes

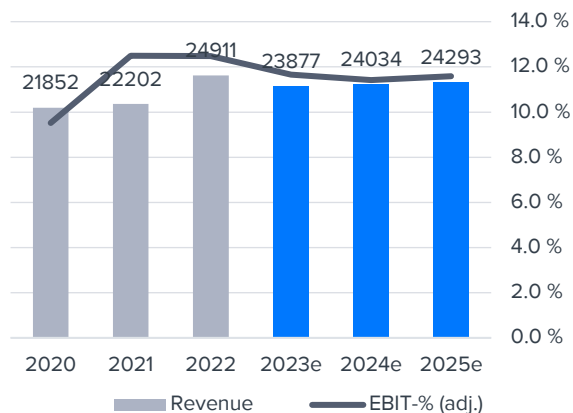
## Guidance (Unchanged)

2023: Net sales EUR 23.2-24.6 billion and comparable operating profit 11.5-13.0%

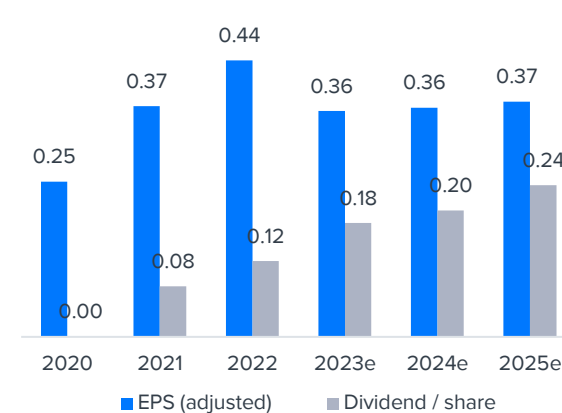
## Share price



## Revenue and EBIT-%



## EPS and dividend



## Value drivers

- Successful turnaround completed, still improvement potential in profitability with good strategy implementation
- 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	3.55	3.55	3.55
Number of shares, millions	5540.3	5540.3	5540.3
Market cap	19685	19685	19685
EV	16913	16006	15189
P/E (adj.)	9.9	9.8	9.6
P/E	12.1	11.6	10.8
P/FCF	20.1	10.0	9.9
P/B	0.9	0.9	0.8
P/S	0.8	0.8	0.8
EV/Sales	0.7	0.7	0.6
EV/EBITDA	5.0	4.8	4.4
EV/EBIT (adj.)	6.1	5.8	5.4
Payout ratio (%)	61%	65%	73%
Dividend yield-%	5.1%	5.6%	6.8%

Source: Inderes

# No major surprises in Q2 figures after profit warning 1/2

## Net sales down in line with preliminary data

Nokia's Q2 net sales decreased by 3% to EUR 5.7 billion, in line with preliminary data. Adjusted for currency effects, net sales remained stable. In Mobile Networks, net sales grew by 5%, as major 5G projects in India were offset by a sharp decline year-on-year in operator investment in North America. In Network Infrastructure (-6%), growth rebounded from a very strong comparison period as customers lowered their inventory levels and the business returned to a more normal level after peak times. In Cloud and Network Services, growth (+2%) was slightly softer than expected. Nokia Technologies' net sales (Q2'23: 334 MEUR, +10%) were supported by a retroactive booking of EUR 80 million from previous periods.

## Financial expenses weighed on EPS more than expected

Nokia's comparable operating profit was EUR 626 million, corresponding to an operating profit margin of roughly 11%, which was in line with preliminary data. Profitability was supported by retroactive payments in

Nokia Technologies, and the quarter was generally solid in terms of profitability. In Mobile Networks, the change of focus from North America to India weighed less on margins than expected thanks to good cost control (EBIT Q2'23: 7.9% vs. Q2'22: 11.2%). In Network Infrastructure, profitability was again at a very strong level (EBIT Q2'23: 13.1% vs. Q2'22: 11.5%), but slightly below our expectations. In Cloud and Network Services, profitability (2.2%) was slightly better than expected. In the bottom lines, EPS were even softer than expected due to higher financing costs.

Nokia's free cash flow (Q2'23: -380 MEUR) was weak as expected with major Indian projects tying up working capital. Cash flow was also weakened by last year's bonus payments to employees which took place in the quarter. Based on Nokia's outlook, cash flow should strengthen towards the end of the year and especially during 2024. Nokia's strong net cash at the end of the quarter was EUR 3.7 billion.

## A reasonably good quarter for Mobile Networks compared to expectations

In Mobile Networks, major 5G projects in India underpinned net sales growth, while at the same time operators' inventory levels melted down and investments in North America stalled. Nokia's group-wide net sales in India grew 355% in Q2, compared to a 40% decline in North America. In Europe, the demand outlook has remained reasonably good and here Nokia has continued to gain market share, supported in part by operators switching from Huawei.

In terms of profitability, Nokia lowered its target for the current year to 6-8% (was 8-10%), compared to an H1 operating profit of 6.6%. Due to the large projects in India, the seasonality of profitability will be stronger than in recent years and earnings will concentrate on Q4. In this case, the recovery of the North American market should also support margins.

In Enterprise Networks, Nokia's growth rate (Q2'23: 27%) slowed from 62% in Q1 but remained strong. Nokia again won several new customer contracts. In H1, the share of enterprise customers in net sales was 9.3% so the growth is not yet reflected particularly much in Group figures.

Estimates MEUR / EUR	Q2'22	Q2'23	Q2'23e	Q2'23e	Consensus		Difference (%)	2023e
	Comparison	Actualized	Inderes	Consensus	Low	High	Act. vs. inderes	Inderes
Revenue	5872	5710	5700	6011	5838	- 6173	0%	23877
EBIT (adj.)	714	626	627	548	476	- 692	0%	2785
EBIT	565	474	507	420	330	- 602	-7%	2339
PTP	541	407	508	415	331	- 602	-20%	2230
EPS (adj.)	0.10	0.07	0.08	0.07	0.06	- 0.09	-12%	0.36
EPS (reported)	0.08	0.05	0.07	0.05	0.04	- 0.08	-23%	0.29
Revenue growth-%	10.5 %	-2.8 %	-2.9 %	2.4 %	-0.6 %	- 5.1 %	0.2 pp	-4.1 %
EBIT-% (adj.)	12.2 %	11.0 %	11.0 %	9.1 %	8.2 %	- 11.2 %	0 pp	11.7 %

Source: Inderes & Infront (consensus)

# No major surprises in Q2 figures after profit warning 2/2

## Network Infrastructure is showing signs of slowing down

In Network Infrastructure, the slowdown in growth in North America, after a strong last few years, was particularly evident in Fixed networks (-14%) and IP Networks (-11%). In Optical Networks, the good performance at the beginning of the year continued (+16%) and the outlook has improved as the year progresses. Here, Nokia's strengthened competitiveness is also reflected in good growth figures.

Despite the decline in net sales, Network Infrastructure's EBIT (13.1%) still improved by 1.6 percentage points year-on-year, supported by a good product mix and good cost discipline. Overall, Network Infrastructure is currently in very good shape, and we believe that the good performance will be maintained in the coming years despite the slowdown in growth. Nokia now expects the unit's EBIT margin to be 12-14% this year (previously 11-14%).

## Turnaround in Cloud and Network Services advanced in Q2

The performance of Cloud and Network Services was largely as expected in Q2. Currency-adjusted net sales grew by 2% and EBIT (2.2%) turned slightly positive. The gross margin of the unit (Q2'23: 36.5% vs. Q2'22: 37.2%) weakened slightly year-on-year as the focus of net sales shifted from software to hardware. However, the gross margin improved by 3.7 percentage points compared to the beginning of the year. Profitability was supported by cost savings and certain other operating income from the sale of digital assets. For the full year, the unit is now targeting an EBIT of 6-8% (previously 5.5-8.5%), which due to seasonality will be concentrated in Q4.

## Patent disputes continue in Nokia Technologies

Nokia Technologies' Q2 EBIT (236 MEUR, +9%) was supported by the recognition of EUR 80 million in net sales from previous periods. Nokia commented that the unit's annual net sales currently stands at EUR 1.0 billion and, with the current contract base, this will rise to EUR 1.1 billion at the beginning of 2024 with the latest patent agreements (e.g. Apple and Samsung). Returning to the targeted net sales of EUR 1.4-1.5 billion requires overcoming the ongoing patent disputes between Oppo and Vivo, the timing of which is still poorly visible.

In terms of ongoing patent disputes, Nokia again stressed that it prioritizes securing the value of its IPR over time pressure. However, the company was confident that the agreements would eventually be reached on good terms for Nokia.

# Another notch of caution added to our estimates

## In Mobile Networks and Network Infrastructure, net sales growth recedes quite sharply in H2

Nokia's outlook for this year, which was lowered last week, anticipates net sales of EUR 23.2-24.6 billion and a comparable operating profit of 11.5-13.0%. The outlook was cut, especially, for H2, which, according to Nokia, is due both to the deteriorating economic environment and customers lowering inventory levels. In addition, high inflation and rising interest rates increasingly affect customers' purchasing plans and some customer projects are moving to 2024, especially in North America. Customers' inventory levels are also normalizing as the supply chain challenges seen in the past two years have eased. These factors will have a negative impact in particular on Network Infrastructure and Mobile Networks, where H2 net sales are expected to be around H1 levels. Typically, in both businesses, the end of the year has been seasonally stronger, so the turn for the worse is quite sharp.

For Network Infrastructure in particular, Nokia believes the challenges are temporary and sees growth opportunities again next year. Nor is the 5G cycle seen to be over yet in North America, although operators are cautious with their investments in the short term.

Nokia expects Q3 gross margin to still be under pressure, but to improve in Q4. 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, the patent disputes with Oppo and Vivo can also be settled at that time, as we also assume in our estimates.

### Estimates down a further notch

Based on the Q2 report, we revised our earnings estimate for the current year down by 4% and our estimates for the coming years down by 3%. Our estimate is now close to the middle of the guidance range for net sales and at the bottom of the range for EBIT (11.7%). The assumption of stable net sales in H2

compared to the first half of the year implies a decline of more than 10% in reported net sales in Mobile Networks and almost 13% in Network Infrastructure.

For 2024-2025, we forecast modest growth of 1% and a broadly stable EBIT of 11.4%-11.6%. Nokia itself has commented on the economies of scale that will result from growth towards the targeted margin of over 14%. In the current market environment, we see growth stalling in the coming years, leaving the improvement in profitability to possible efficiency measures.

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 64-71%, Nokia would generate around EUR 1.9-2.0 billion in free cash flow annually.

Estimate revisions	2023e	2023e	Change	2024e	2024e	Change	2025e	2025e	Change
	Old	New		Old	New		Old	New	
MEUR / EUR			%			%			%
Revenue	24322	23877	-2%	24226	24034	-1%	24487	24293	-1%
EBITDA	3523	3399	-4%	3408	3332	-2%	3574	3473	-3%
EBIT (excl. NRIs)	2887	2785	-4%	2816	2743	-3%	2914	2816	-3%
EBIT	2474	2339	-5%	2416	2343	-3%	2614	2516	-4%
PTP	2453	2230	-9%	2346	2273	-3%	2544	2446	-4%
EPS (excl. NRIs)	0.38	0.36	-7%	0.37	0.36	-3%	0.39	0.37	-3%
DPS	0.18	0.18	0%	0.20	0.20	0%	0.24	0.24	0%

Source: Inderes

# Estimate changes by division

Estimate revisions	2023e	2023e	Change	2024e	2024e	Change	2025e	2025e	Change
MEUR / EUR	Old	New	%	Old	New	%	Old	New	%
<b>Revenue</b>	<b>24322</b>	<b>23877</b>	<b>-2%</b>	<b>24226</b>	<b>24034</b>	<b>-1%</b>	<b>24487</b>	<b>24293</b>	<b>-1%</b>
Mobile Networks	10379	10392	0%	10482	10496	0%	10587	10601	0%
Network Infrastructure	8820	8515	-3%	8643	8599	-1%	8730	8685	-1%
Nokia Technologies	1502	1476	-2%	1397	1373	-2%	1397	1373	-2%
Cloud and Network Services	3415	3343	-2%	3484	3411	-2%	3553	3480	-2%
Other	230	164	-29%	250	170	-32%	250	170	-32%
One-off items/non-IFRS adjustments	-24.0	-13.0	-46%	-30.0	-15.0	-50%	-30.0	-15.0	-50%
<b>EBITDA</b>	<b>3523</b>	<b>3399</b>	<b>-4%</b>	<b>3408</b>	<b>3332</b>	<b>-2%</b>	<b>3574</b>	<b>3473</b>	<b>-3%</b>
<b>EBIT (exc. NRIs)</b>	<b>2887</b>	<b>2785</b>	<b>-4%</b>	<b>2816</b>	<b>2743</b>	<b>-3%</b>	<b>2914</b>	<b>2816</b>	<b>-3%</b>
<b>EBIT</b>	<b>2474</b>	<b>2339</b>	<b>-5%</b>	<b>2416</b>	<b>2343</b>	<b>-3%</b>	<b>2614</b>	<b>2516</b>	<b>-4%</b>
Mobile Networks	758	736	-3%	816	811	-1%	866	861	-1%
Network Infrastructure	1214	1143	-6%	1103	1092	-1%	1105	1096	-1%
Nokia Technologies	1116	1082	-3%	1014	985	-3%	1014	985	-3%
Cloud and Network Services	174	224	29%	202	225	11%	249	244	-2%
Other	-374	-402	7%	-320	-370	16%	-320	-370	16%
One-off items/non-IFRS adjustments	-413	-446	8%	-400	-400	0%	-300	-300	0%
<b>PTP</b>	<b>2453</b>	<b>2230</b>	<b>-9%</b>	<b>2346</b>	<b>2273</b>	<b>-3%</b>	<b>2544</b>	<b>2446</b>	<b>-4%</b>
<b>EPS (adjusted)</b>	<b>0.38</b>	<b>0.36</b>	<b>-7%</b>	<b>0.37</b>	<b>0.36</b>	<b>-3%</b>	<b>0.39</b>	<b>0.37</b>	<b>-3%</b>
Dividend / share	0.18	0.18	0%	0.20	0.20	0%	0.24	0.24	0%

Source: Inderes

# Summary of estimates

Mobile Networks	2021	2022	2023e	2024e	2025e	2026e
Net sales	9718	10672	10392	10496	10601	10707
Growth-%	-6.5 %	9.8 %	-2.6 %	1.0 %	1.0 %	1.0 %
Gross Margin	3638	4095	3543	3831	3891	3940
Gross Margin-%	37.4 %	38.4 %	34.1 %	36.5 %	36.7 %	36.8 %
EBIT	764	941	737	811	861	900
EBIT-%	7.9 %	8.8 %	7.1 %	7.7 %	8.1 %	8.4 %

Network Infrastructure	2021	2022	2023e	2024e	2025e	2026e
Net sales	7674	9047	8514	8599	8685	8772
Growth-%	13.9 %	17.9 %	-5.9 %	1.0 %	1.0 %	1.0 %
Gross Margin	2684	3309	3178	3182	3196	3219
Gross Margin-%	35.0 %	36.6 %	37.3 %	37.0 %	36.8 %	36.7 %
EBIT	784	1101	1143	1092	1096	1104
EBIT-%	10.2 %	12.2 %	13.4 %	12.7 %	12.6 %	12.6 %

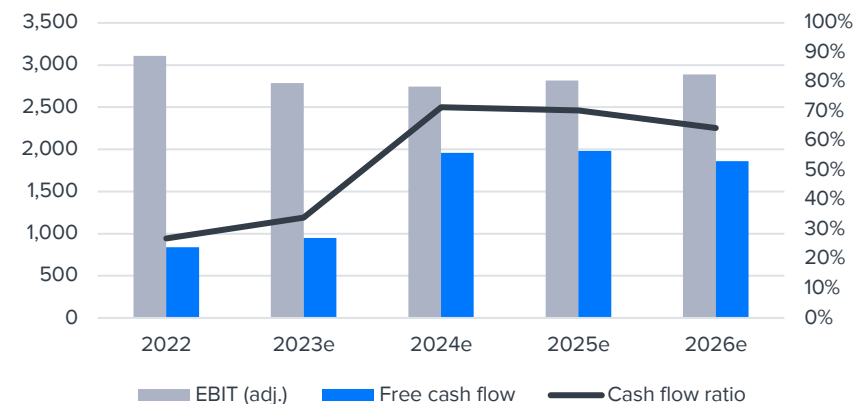
Cloud and Network Services	2021	2022	2023e	2024e	2025e	2026e
Net sales	3089	3350	3344	3411	3480	3549
Growth-%	0.1 %	8.4 %	-0.2 %	2.0 %	2.0 %	2.0 %
Gross Margin	1160	1340	1296	1330	1374	1420
Gross Margin-%	37.6 %	40.0 %	38.8 %	39.0 %	39.5 %	40.0 %
EBIT	166	178	224	225	244	270
EBIT-%	5.4 %	5.3 %	6.7 %	6.6 %	7.0 %	7.6 %

Technology	2021	2022	2023e	2024e	2025e	2026e
Net sales	1501	1595	1476	1373	1373	1373
Growth-%	7.1 %	6.3 %	-7.5 %	-7.0 %	0.0 %	0.0 %
EBIT	1185	1208	1082	985	985	985
EBIT-%	78.9 %	75.7 %	73.3 %	71.8 %	71.8 %	71.8 %

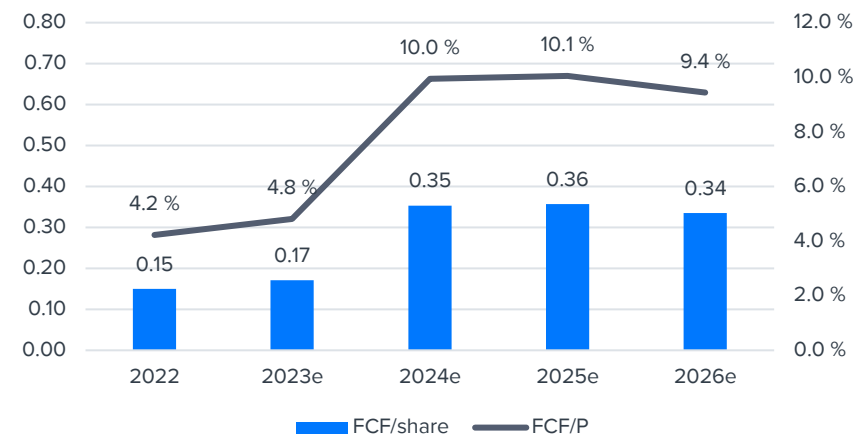
Group common and Other	2021	2022	2023e	2024e	2025e	2026e
Net sales	257	296	163	170	170	170
Growth-%	-4.3 %	15.2 %	-44.9 %	4.3 %	0.0 %	0.0 %
EBIT	-124	-318	-403	-370	-370	-370

Source: Inderes

## Development of Nokia's comparable EBIT and free cash flow



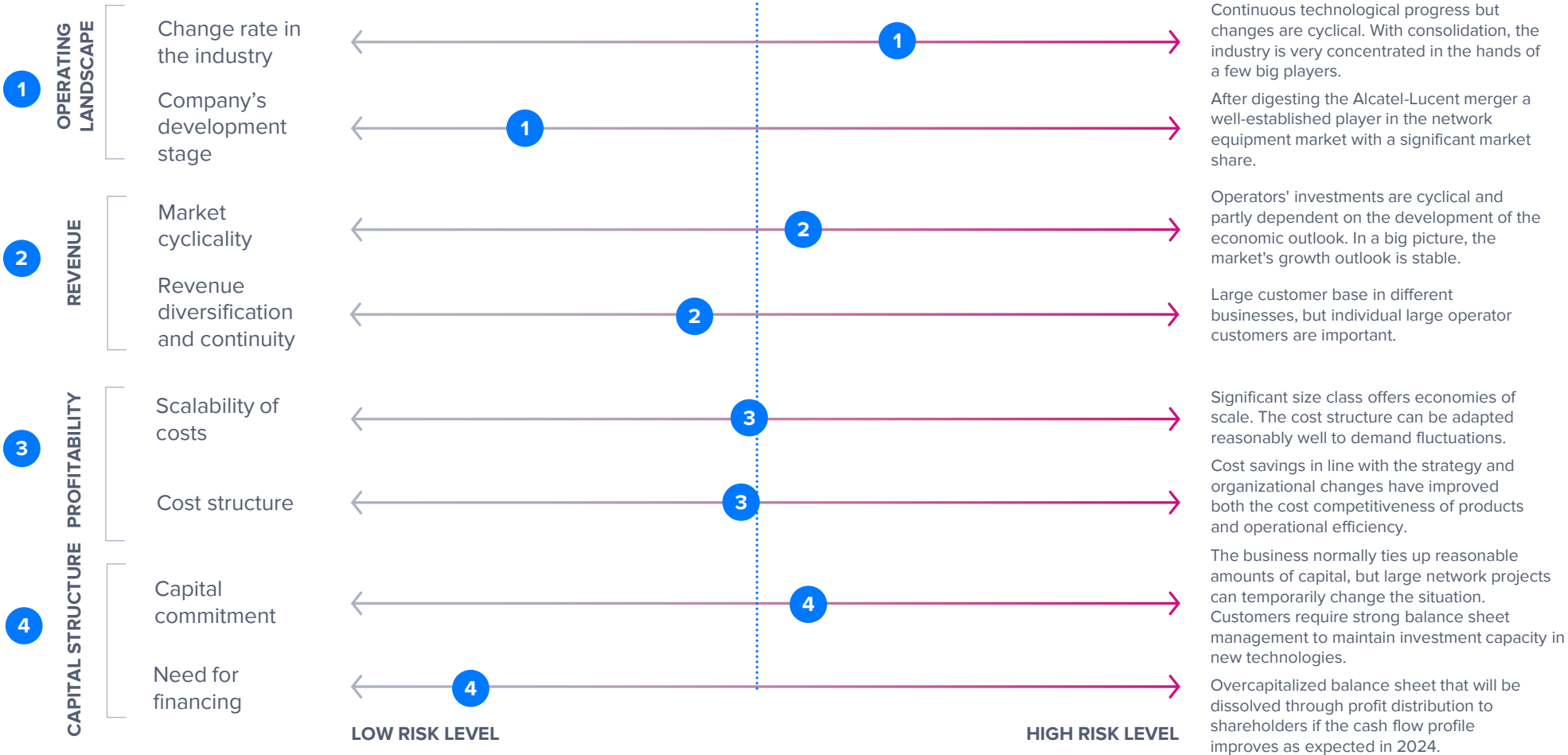
## Free cash flow per share and FCF/P





# Risk profile of the business model

Assessment of Nokia's overall business risk



Source: 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 6x-8x EV/EBIT. The value of the unit is thus EUR 6.5-8.7 billion. The growth outlook for Nokia Technologies is modest, but in the medium term, stable cash flows support value.

We price the very strong performing Network Infrastructure at an EBIT multiple of 6.5-8.5x, reflecting our estimate of stable earnings in the coming years. The value of the unit is thus EUR 7.4-9.7 billion. The unit has grown very strongly in recent years and profitability has already reached a very good level. Thus, it will be challenging to generate earnings growth in a declining market.

Cloud and Network Services, which are currently still underperforming, are valued at an EV/EBIT multiple of 6.0-7.0x, resulting in a unit value of EUR 1.3-1.6 billion. In addition to weak profitability, the current sluggish growth supports moderate multiples.

For Mobile Networks, we have assumed a 6.0-8.0x EV/EBIT, making the unit worth EUR 4.4-5.9 billion. Our 2023 estimate now expects an EBIT margin of 7.1% from the unit and we do not consider reaching the long-term profitability target (>10%) realistic in a weakening market.

With these assumptions, the sum of the parts will be EUR 23 billion (EUR 4.1 per share), with a range of EUR

19-27 billion (EUR 3.7-5.1 per share). Therefore, considering the sum of the parts, there is clear upside in the share, although we do not see it as a key driver of Nokia's valuation at the moment.

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

Considering Nokia's current net cash 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 9.4-10.1% with our 2024-2026 estimates. In addition, roughly EUR 0.1-0.3 per share could be paid as extra dividend from the overcapitalized balance sheet (dividend yield 2-8%). 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 around 10%, but that the share price increase will narrow it somewhat. At our target price, the cash flow return over the next few years would be roughly in line with the required return we applied to Nokia (8.8%).

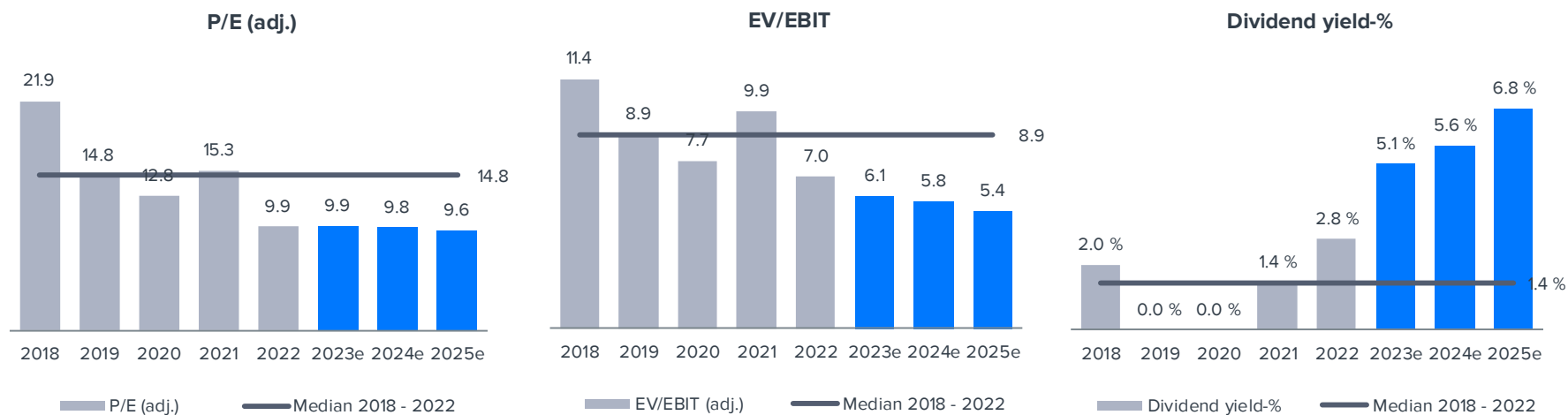
## Sum of the parts in 2023

Technology	Pessimistic	Neutral	Optimistic
Variable: Adj. EBIT 2023e	1.1	1.1	1.1
X valuation multiple	6.0	7.0	8.0
<b>EV</b>	<b>6.5</b>	<b>7.6</b>	<b>8.7</b>
<i>Per share (EUR)</i>	<i>1.2</i>	<i>1.4</i>	<i>1.6</i>
<b>Network Infrastructure</b>	<b>Pessimistic</b>	<b>Neutral</b>	<b>Optimistic</b>
Variable: Adj. EBIT 2023e	1.1	1.1	1.1
X valuation multiple	6.5	7.5	8.5
<b>EV</b>	<b>7.4</b>	<b>8.6</b>	<b>9.7</b>
<i>Per share (EUR)</i>	<i>1.3</i>	<i>1.5</i>	<i>1.8</i>
<b>Cloud and Network Services</b>	<b>Pessimistic</b>	<b>Neutral</b>	<b>Optimistic</b>
Variable: Adj. EBIT 2023e	0.2	0.2	0.2
X valuation multiple	6.0	6.5	7.0
<b>EV</b>	<b>1.3</b>	<b>1.5</b>	<b>1.6</b>
<i>Per share (EUR)</i>	<i>0.2</i>	<i>0.3</i>	<i>0.3</i>
<b>Mobile Networks</b>	<b>Pessimistic</b>	<b>Neutral</b>	<b>Optimistic</b>
Variable: Adj. EBIT 2023e	0.7	0.7	0.7
X valuation multiple	6.0	7.0	8.0
<b>EV</b>	<b>4.4</b>	<b>5.2</b>	<b>5.9</b>
<i>Per share (EUR)</i>	<i>0.8</i>	<i>0.9</i>	<i>1.1</i>
<b>Total</b>	<b>Pessimistic</b>	<b>Neutral</b>	<b>Optimistic</b>
Aggregate EV	19.7	22.8	25.8
Other operating and group costs (NPV)	-3.5	-3.0	-2.0
Net cash at the end of Q2'23	3.7	3.7	3.7
Costs for restructuring	-0.7	-0.6	-0.5
Sum-of-the-parts total	19	23	27
<i>Per share (EUR)</i>	<i>3.5</i>	<i>4.1</i>	<i>4.9</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	3.55	3.55	3.55	3.55
Number of shares, millions	5593	5606	5617	5629	5590	5540	5540	5540	5540
Market cap	28133	18476	17701	31378	24189	19685	19685	19685	19685
EV	24912	17799	15938	27543	21648	16913	16006	15189	14696
P/E (adj.)	21.9	14.8	12.8	15.3	9.9	9.9	9.8	9.6	9.2
P/E	neg.	>100	neg.	19.3	5.7	12.1	11.6	10.8	10.0
P/FCF	neg.	neg.	11.1	neg.	neg.	20.1	10.0	9.9	10.6
P/B	1.8	1.2	1.4	1.8	1.1	0.9	0.9	0.8	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	4.8	4.4	4.3
EV/EBIT (adj.)	11.4	8.9	7.7	9.9	7.0	6.1	5.8	5.4	5.1
Payout ratio (%)	neg.	0.0 %	0.0 %	27.7 %	15.8 %	61.1 %	65.2 %	72.7 %	72.8 %
Dividend yield-%	2.0 %	0.0 %	0.0 %	1.4 %	2.8 %	5.1 %	5.6 %	6.8 %	7.3 %

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	123850	132168	13.2	11.6	11.9	10.4	4.1	3.8	15.0	12.9	2.5	2.6	7.3
Ciena	5631	5845	11.7	9.8	9.9	8.5	1.5	1.4	16.2	12.6			2.2
Cisco	190912	177602	10.5	10.2	9.7	9.4	3.5	3.4	13.8	13.0	2.9	3.0	4.9
Juniper Networks	8684	9133	10.3	9.4	8.7	8.0	1.8	1.7	12.8	11.7	2.9	2.9	2.1
Motorola	43754	48230	21.4	19.4	18.5	17.0	5.5	5.2	25.9	23.5	1.1	1.2	55.2
ZTE	23604	23626	17.4	15.5	12.4	12.0	1.4	1.3	13.8	12.1	1.8	2.0	2.0
Ericsson	15184	16065	8.8	6.2	6.2	4.9	0.7	0.7	11.8	8.3	5.4	5.6	1.3
Amdocs	10314	10164	13.1	12.2	10.6	10.0	2.3	2.2	16.2	14.6	1.7	1.8	3.2
CommScope	941	10117	9.2	8.2	8.0	7.2	1.3	1.3	2.7	2.2			
Oracle	287863	360063	19.3	17.4	15.7	14.2	8.1	7.5	23.6	21.2	1.1	1.2	
Viavi	2192	2390	15.7	13.1	11.8	10.5	2.4	2.3	20.9	18.0			3.4
<b>Nokia (Inderes)</b>	<b>19685</b>	<b>16913</b>	<b>6.1</b>	<b>5.8</b>	<b>5.0</b>	<b>4.8</b>	<b>0.7</b>	<b>0.7</b>	<b>9.9</b>	<b>9.8</b>	<b>5.1</b>	<b>5.6</b>	<b>0.9</b>
<b>Average</b>			<b>13.7</b>	<b>12.1</b>	<b>11.2</b>	<b>10.2</b>	<b>3.0</b>	<b>2.8</b>	<b>15.7</b>	<b>13.6</b>	<b>2.4</b>	<b>2.5</b>	<b>9.1</b>
<b>Median</b>			<b>13.1</b>	<b>11.6</b>	<b>10.6</b>	<b>10.0</b>	<b>2.3</b>	<b>2.2</b>	<b>15.0</b>	<b>12.9</b>	<b>2.1</b>	<b>2.3</b>	<b>3.2</b>
<b>Diff-% to median</b>			<b>-54%</b>	<b>-49%</b>	<b>-53%</b>	<b>-52%</b>	<b>-69%</b>	<b>-69%</b>	<b>-34%</b>	<b>-24%</b>	<b>137%</b>	<b>146%</b>	<b>-72%</b>

Source: Refinitiv / Inderes

# Income statement

Income statement	2021	Q1'22	Q2'22	Q3'22	Q4'22	2022	Q1'23	Q2'23	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>5710</b>	<b>5612</b>	<b>6697</b>	<b>23877</b>	<b>24034</b>	<b>24293</b>	<b>24556</b>
Mobile Networks	9717	2268	2592	2851	2960	10671	2567	2623	2509	2694	10392	10496	10601	10707
Network Infrastructure	7674	1974	2153	2211	2709	9047	2248	1979	2012	2276	8515	8599	8685	8772
Nokia Technologies	1502	306	305	305	679	1595	242	334	260	640	1476	1373	1373	1373
Cloud and Network Services	3089	736	754	801	1060	3351	760	741	793	1049	3343	3411	3480	3549
Other	257	76	76	84	59	295	48	36	40	40	164	170	170	170
One-off items/non-IFRS adjustments	-37	-12	-8	-10	-18	-48	-6	-3	-2	-2	-13	-15	-15	-15
<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>746</b>	<b>668</b>	<b>1293</b>	<b>3399</b>	<b>3332</b>	<b>3473</b>	<b>3395</b>
Depreciation	-1095	-274	-282	-288	-296	-1140	-266	-272	-261	-261	-1060	-989	-957	-706
<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>626</b>	<b>527</b>	<b>1152</b>	<b>2785</b>	<b>2743</b>	<b>2816</b>	<b>2889</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>474</b>	<b>407</b>	<b>1032</b>	<b>2339</b>	<b>2343</b>	<b>2516</b>	<b>2689</b>
Mobile Networks	765	171	291	277	201	940	137	205	150	244	736	811	861	900
Network Infrastructure	784	195	247	228	432	1102	344	260	247	292	1143	1092	1096	1104
Nokia Technologies	1185	220	217	207	564	1208	149	236	159	538	1082	985	985	985
Cloud and Network Services	166	20	-6	16	147	177	-20	16	60	168	224	225	244	270
Other	-125	-23	-36	-71	-189	-318	-131	-91	-90	-90	-402	-370	-370	-370
One-off items/non-IFRS adjustments	-617	-229	-149	-140	-273	-791	-53	-153	-120	-120	-446	-400	-300	-200
Net financial items	-241	-72	-18	12	-30	-108	-19	-55	-10	-10	-94	-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>407</b>	<b>399</b>	<b>1023</b>	<b>2230</b>	<b>2273</b>	<b>2446</b>	<b>2644</b>
Taxes	-272	-79	-74	-93	2271	2026	-111	-116	-100	-256	-583	-567	-610	-660
Minority interest	-22	-7	-3	-1	2	-9	-10	1	-2	-2	-13	-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>290</b>	<b>297</b>	<b>766</b>	<b>1631</b>	<b>1700</b>	<b>1830</b>	<b>1978</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>0.07</b>	<b>0.15</b>	<b>0.36</b>	<b>0.36</b>	<b>0.37</b>	<b>0.38</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>0.05</b>	<b>0.05</b>	<b>0.14</b>	<b>0.29</b>	<b>0.31</b>	<b>0.33</b>	<b>0.36</b>

Key figures	2021	Q1'22	Q2'22	Q3'22	Q4'22	2022	Q1'23	Q2'23	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 %	-2.8 %	-10.1 %	-10.1 %	-4.1 %	0.7 %	1.1 %	1.1 %
<b>Adjusted EBIT growth-%</b>	33.4 %	5.8 %	4.5 %	3.9 %	27.1 %	12.0 %	-17.8 %	-12.2 %	-19.8 %	-0.2 %	-10.4 %	-1.5 %	2.7 %	2.6 %
<b>EBITDA-%</b>	14.7 %	11.7 %	14.4 %	12.9 %	15.8 %	13.9 %	11.8 %	13.1 %	11.9 %	19.3 %	14.2 %	13.9 %	14.3 %	13.8 %
<b>Adjusted EBIT-%</b>	12.5 %	10.9 %	12.2 %	10.5 %	15.5 %	12.5 %	8.2 %	11.0 %	9.4 %	17.2 %	11.7 %	11.4 %	11.6 %	11.8 %
<b>Net earnings-%</b>	7.3 %	4.0 %	7.8 %	6.8 %	42.3 %	17.1 %	4.8 %	5.1 %	5.3 %	11.4 %	6.8 %	7.1 %	7.5 %	8.1 %

Source: Inderes

# Balance sheet

Assets	2021	2022	2023e	2024e	2025e
<b>Non-current assets</b>	<b>22174</b>	<b>23886</b>	<b>23353</b>	<b>22850</b>	<b>22359</b>
Goodwill	5431	5667	5667	5667	5667
Intangible assets	3342	2472	2126	1787	1420
Tangible assets	2808	2944	2869	2705	2581
Associated companies	243	199	170	170	170
Other investments	758	828	802	802	802
Other non-current assets	8320	7942	7942	7942	7942
Deferred tax assets	1272	3834	3777	3777	3777
<b>Current assets</b>	<b>19597</b>	<b>20266</b>	<b>20248</b>	<b>20309</b>	<b>20261</b>
Inventories	2392	3265	3295	3221	3207
Other current assets	0.0	0.0	0.0	0.0	0.0
Receivables	7601	7839	8357	8436	8551
Cash and equivalents	9604	9162	8596	8652	8503
<b>Balance sheet total</b>	<b>40049</b>	<b>42943</b>	<b>42453</b>	<b>42175</b>	<b>41820</b>

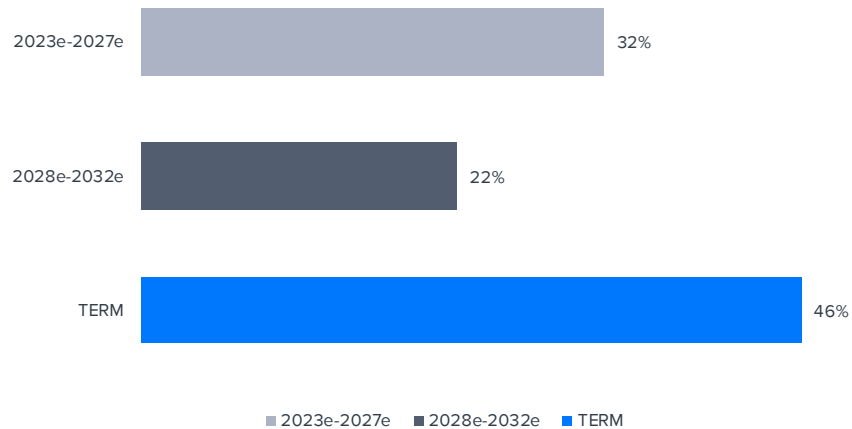
Source: Inderes

Liabilities & equity	2021	2022	2023e	2024e	2025e
<b>Equity</b>	<b>17462</b>	<b>21426</b>	<b>22387</b>	<b>23089</b>	<b>23811</b>
Share capital	246	246	246	246	246
Retained earnings	-2537	1375	2336	3038	3760
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>8578</b>	<b>7742</b>	<b>6819</b>
Deferred tax liabilities	282	332	332	332	332
Provisions	1569	1435	1000	800	600
Long term debt	5361	5107	4564	3928	3205
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>11489</b>	<b>11344</b>	<b>11190</b>
Short term debt	301	1450	1221	1009	768
Payables	10876	10511	10267	10335	10422
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>42453</b>	<b>42175</b>	<b>41820</b>

# DCF calculation

DCF model	2022	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	TERM
Revenue growth-%	12.2 %	-4.1%	0.7 %	1.1%	1.1%	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %
EBIT-%	9.3 %	9.8 %	9.7 %	10.4 %	11.0 %	10.7 %	10.5 %	10.0 %	9.5 %	9.0 %	8.8 %	8.8 %
<b>EBIT (operating profit)</b>	<b>2318</b>	<b>2339</b>	<b>2343</b>	<b>2516</b>	<b>2689</b>	<b>2654</b>	<b>2630</b>	<b>2530</b>	<b>2428</b>	<b>2323</b>	<b>2294</b>	
+ Depreciation	1140	1060	989	957	706	689	676	667	661	656	653	
- Paid taxes	-486	-526	-567	-610	-660	-651	-645	-587	-565	-545	-544	
- Tax, financial expenses	-27	-24	-19	-19	-13	-13	-13	-45	-41	-36	-30	
+ Tax, financial income	0	0	0	0	0	0	0	0	0	0	0	
- Change in working capital	-1476	-792	63	-14	-14	-63	-64	-65	-67	-42	-43	
<b>Operating cash flow</b>	<b>1469</b>	<b>2057</b>	<b>2809</b>	<b>2830</b>	<b>2709</b>	<b>2616</b>	<b>2585</b>	<b>2499</b>	<b>2415</b>	<b>2356</b>	<b>2331</b>	
+ Change in other long-term liabilities	-1650	-435	-200	-200	-200	-200	-200	0	0	0	0	
- Gross CAPEX	-847	-674	-650	-650	-650	-650	-650	-650	-650	-650	-655	
<b>Free operating cash flow</b>	<b>-1028</b>	<b>948</b>	<b>1959</b>	<b>1980</b>	<b>1859</b>	<b>1766</b>	<b>1735</b>	<b>1849</b>	<b>1765</b>	<b>1706</b>	<b>1676</b>	
+/- Other	49	34	0	0	0	0	0	0	0	0	0	
FCFF	-979	982	1959	1980	1859	1766	1735	1849	1765	1706	1676	21780
<b>Discounted FCFF</b>		<b>945</b>	<b>1735</b>	<b>1611</b>	<b>1391</b>	<b>1215</b>	<b>1097</b>	<b>1075</b>	<b>943</b>	<b>839</b>	<b>757</b>	<b>9842</b>
Sum of FCFF present value		21452	20506	18772	17160	15769	14554	13457	12382	11438	10599	9842
<b>Enterprise value DCF</b>		<b>21452</b>										
- Interest bearing debt		-6557										
+ Cash and cash equivalents		9162										
-Minorities		-82										
-Dividend/capital return		-671										
<b>Equity value DCF</b>		<b>23347</b>										
<b>Equity value DCF per share</b>		<b>4.2</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>8.8 %</b>
<b>Weighted average cost of capital (WACC)</b>	<b>8.8 %</b>

Source: Inderes

# Summary

Income statement	2020	2021	2022	2023e	2024e	Per share data	2020	2021	2022	2023e	2024e
Revenue	21852	22202	24911	<b>23877</b>	<b>24034</b>	EPS (reported)	-0.45	0.29	0.76	<b>0.29</b>	<b>0.31</b>
EBITDA	2017	3253	3458	<b>3399</b>	<b>3332</b>	EPS (adj.)	0.25	0.37	0.44	<b>0.36</b>	<b>0.36</b>
EBIT	885	2158	2318	<b>2339</b>	<b>2343</b>	OCF / share	0.38	0.73	0.26	<b>0.37</b>	<b>0.51</b>
PTP	743	1926	2184	<b>2230</b>	<b>2273</b>	FCF / share	0.28	-0.16	-0.18	<b>0.18</b>	<b>0.35</b>
Net Income	-2523	1623	4250	<b>1631</b>	<b>1700</b>	Book value / share	2.22	3.08	3.82	<b>4.02</b>	<b>4.15</b>
Extraordinary items	-1196	-617	-791	<b>-446</b>	<b>-400</b>	Dividend / share	0.00	0.08	0.12	<b>0.18</b>	<b>0.20</b>
Balance sheet	2020	2021	2022	2023e	2024e	Growth and profitability	2020	2021	2022	2023e	2024e
Balance sheet total	36191	40049	42943	<b>42453</b>	<b>42175</b>	Revenue growth-%	-6%	2%	12%	<b>-4%</b>	<b>1%</b>
Equity capital	12545	17462	21426	<b>22387</b>	<b>23089</b>	EBITDA growth-%	-6%	61%	6%	<b>-2%</b>	<b>-2%</b>
Goodwill	5074	5431	5667	<b>5667</b>	<b>5667</b>	EBIT (adj.) growth-%	4%	33%	12%	<b>-10%</b>	<b>-1%</b>
Net debt	-1789	-3942	-2605	<b>-2811</b>	<b>-3715</b>	EPS (adj.) growth-%	10%	49%	20%	<b>-18%</b>	<b>1%</b>
Cash flow	2020	2021	2022	2023e	2024e	EBITDA-%	9.2 %	14.7 %	13.9 %	<b>14.2 %</b>	<b>13.9 %</b>
EBITDA	2017	3253	3458	<b>3399</b>	<b>3332</b>	EBIT (adj.)-%	9.5 %	12.5 %	12.5 %	<b>11.7 %</b>	<b>11.4 %</b>
Change in working capital	225	608	-1476	<b>-792</b>	<b>63</b>	EBIT-%	4.0 %	9.7 %	9.3 %	<b>9.8 %</b>	<b>9.7 %</b>
Operating cash flow	2118	4127	1469	<b>2057</b>	<b>2809</b>	ROE-%	-18.2 %	10.9 %	22.0 %	<b>7.5 %</b>	<b>7.5 %</b>
CAPEX	-22	-4111	-847	<b>-674</b>	<b>-650</b>	ROI-%	4.6 %	10.3 %	9.0 %	<b>8.3 %</b>	<b>8.4 %</b>
Free cash flow	1599	-911	-979	<b>982</b>	<b>1959</b>	Equity ratio	34.7 %	43.6 %	49.9 %	<b>52.7 %</b>	<b>54.7 %</b>
						Gearing	-14.3 %	-22.6 %	-12.2 %	<b>-12.6 %</b>	<b>-16.1 %</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>4.8</b>						
EV/EBIT (adj.)	7.7	9.9	7.0	<b>6.1</b>	<b>5.8</b>						
P/E (adj.)	12.8	15.3	9.9	<b>9.9</b>	<b>9.8</b>						
P/B	1.4	1.8	1.1	<b>0.9</b>	<b>0.9</b>						
Dividend-%	0.0 %	1.4 %	2.8 %	<b>5.1 %</b>	<b>5.6 %</b>						

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# 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 target	Yes	Yes
Target according to Paris agreement (1.5°C warming scenario)	Yes	Yes

\*the figures are not comparable due to taxonomy development

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Buy	The 12-month risk-adjusted expected shareholder return of the share is very attractive
Accumulate	The 12-month risk-adjusted expected shareholder return of the share is attractive
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
	The assessment of the 12-month risk-adjusted expected total shareholder return based on the above-mentioned definitions is company-specific and subjective. Consequently, similar 12-month expected total shareholder returns between different shares may result in different recommendations, and the recommendations and 12-month expected total shareholder returns between different shares should not be compared with each other. The counterpart of the expected total shareholder return is Inderes' view of the risk taken by the investor, which varies considerably between companies and scenarios. Thus, a high expected total shareholder return does not necessarily lead to positive performance when the risks are exceptionally high and, correspondingly, a low expected total shareholder return does not necessarily lead to a negative recommendation if Inderes considers the risks to be moderate.

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## Recommendation history (>12 mo)

Date	Recommendation	Target	Share price
7/29/2021	Accumulate	5.80 €	5.18 €
10/29/2021	Accumulate	5.90 €	5.02 €
1/12/2022	Accumulate	6.20 €	5.44 €
2/4/2022	Accumulate	6.00 €	5.17 €
3/8/2022	Buy	5.20 €	4.33 €
4/29/2022	Accumulate	5.40 €	4.66 €
7/22/2022	Accumulate	5.70 €	5.01 €
10/21/2022	Accumulate	5.30 €	4.39 €
1/11/2023	Accumulate	5.30 €	4.56 €
1/27/2023	Accumulate	5.30 €	4.38 €
4/21/2023	Buy	4.80 €	3.90 €
7/5/2023	Buy	4.80 €	3.91 €
7/17/2023	Accumulate	4.10 €	3.54 €
7/21/2023	Accumulate	4.00 €	3.53 €



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