

## Report for Q2 and Half Year 2023

### Resilient performance amidst macro uncertainty

- Q2 net sales flat y-o-y in constant currency (-3% reported).
- Enterprise net sales grew 27% y-o-y in constant currency (25% reported).
- Comparable gross margin declined 180bps y-o-y to 38.8% (reported declined 200bps to 38.2%) due to regional mix in Mobile Networks, partly offset by a strong Network Infrastructure margin and catch-up net sales in Nokia Technologies.
- Comparable operating margin declined y-o-y by 120bps to 11.0% (reported declined 130bps to 8.3%), due to the above mentioned gross margin factors, partly offset by lower operating expenses and higher other operating income.
- Comparable diluted EPS of EUR 0.07; reported diluted EPS of EUR 0.05.
- Free cash flow negative EUR 0.4bn, net cash balance of EUR 3.7bn.
- As announced on 14 July 2023, Nokia now expects full year 2023 net sales in the range of EUR 23.2 billion to EUR 24.6bn with a comparable operating margin in the range of 11.5% to 13.0%.

EUR million (except for EPS in EUR)	Q2'23	Q2'22	YoY change	Constant currency YoY change	Q1-Q2'23	Q1-Q2'22	YoY change	Constant currency YoY change
<b>Reported results</b>								
Net sales	5 710	5 873	(3)%	0%	11 569	11 220	3%	4%
Gross margin %	38.2%	40.2%	(200)bps		37.8%	40.4%	(260)bps	
Research and development expenses	(1 045)	(1 091)	(4)%		(2 154)	(2 163)	0%	
Selling, general and administrative expenses	(703)	(728)	(3)%		(1 432)	(1 403)	2%	
Operating profit	474	564	(16)%		900	918	(2)%	
Operating margin %	8.3%	9.6%	(130)bps		7.8%	8.2%	(40)bps	
Profit for the period	289	460	(37)%		578	679	(15)%	
EPS, diluted	0.05	0.08	(38)%		0.10	0.12	(17)%	
Net cash and interest-bearing financial investments	3 660	4 546	(19)%		3 660	4 546	(19)%	
<b>Comparable results</b>								
Net sales	5 710	5 873	(3)%	0%	11 569	11 220	3%	4%
Gross margin %	38.8%	40.6%	(180)bps		38.2%	40.7%	(250)bps	
Research and development expenses	(1 026)	(1 069)	(4)%		(2 119)	(2 122)	0%	
Selling, general and administrative expenses	(618)	(623)	(1)%		(1 259)	(1 204)	5%	
Operating profit	626	714	(12)%		1 106	1 296	(15)%	
Operating margin %	11.0%	12.2%	(120)bps		9.6%	11.6%	(200)bps	
Profit for the period	414	585	(29)%		756	1 001	(24)%	
EPS, diluted	0.07	0.10	(30)%		0.13	0.17	(24)%	
ROIC <sup>1</sup>	13.9%	18.5%	(460)bps		13.9%	18.5%	(460)bps	

<sup>1</sup> Comparable ROIC = Comparable operating profit after tax, last four quarters / invested capital, average of last five quarters' ending balances. Refer to the Performance measures section in this report for details.

EUR million	Network Infrastructure		Mobile Networks		Cloud and Network Services		Nokia Technologies		Group Common and Other	
	Q2'23	Q2'22	Q2'23	Q2'22	Q2'23	Q2'22	Q2'23	Q2'22	Q2'23	Q2'22
Net sales	1 978	2 153	2 623	2 593	742	753	334	305	35	77
YoY change	(8)%		1%		(1)%		10 %		(55)%	
Constant currency YoY change	(6)%		5%		2%		10 %		(53)%	
Gross margin %	37.1%	35.4%	33.4%	40.2%	36.5%	37.2%	100.0%	99.7%	(2.9)%	(5.2)%
Operating profit/(loss)	260	247	206	291	16	(5)	236	217	(91)	(36)
Operating margin %	13.1%	11.5%	7.9%	11.2%	2.2%	(0.7)%	70.7%	71.1%	(260.0)%	(46.8)%



**Pekka Lundmark**  
President and CEO

In Q2 we delivered stable net sales in constant currency compared to the prior year. As a result of prudent management of our costs, we were able to deliver a solid comparable operating margin of 11.0% despite the regional mix headwinds faced in our Mobile Networks business. Considering the significant decline in major North American operators' investments, our operating margin has proved resilient, even adjusting for the EUR 80 million of catch-up net sales in Nokia Technologies.

The highlight of the quarter was the new long-term patent license agreement signed with Apple. This is another major milestone in our smartphone license renewal cycle. Our performance in Enterprise was also a highlight with net sales increasing by 27% in constant currency illustrating how well we are executing on this strategic pillar.

Our Network Infrastructure business saw a 6% decline in net sales in constant currency as macro uncertainty impacted the business, particularly in IP Networks which declined 11%. We also saw a decline in Fixed Networks, driven by Fixed Wireless Access and some modest inventory management, nonetheless fiber demand remains robust. In Optical Networks we saw continued strength with 16% growth. Supportive product mix in the quarter along with good cost discipline led to operating margin improving 160bps year-on-year.

Our Mobile Networks business continued to benefit from 5G deployments in India offsetting on-going weakness in North America, delivering 5% net sales growth in constant currency. Gross margin was largely in line with Q1 and continued cost discipline led to an operating margin of 7.9% in Q2.

Cloud and Network Services achieved net sales growth of 2% in constant currency and delivered a 2.2% operating margin in the quarter. We recently announced a strategic partnership

with Red Hat for cloud infrastructure, another important milestone on the path to rebalancing the portfolio.

Nokia Technologies' annual net sales run-rate remained approximately EUR 1.0 billion in Q2 excluding the catch-up benefit. Considering our current base of agreements, we now see that our net sales annual run-rate would be EUR 1.1 billion from January 2024, subject to any other material developments. We remain confident Nokia Technologies will return to an annual run-rate of EUR 1.4-1.5 billion as we work through the smartphone license renewal cycle and grow in new areas.

Earlier in the year I highlighted that we were starting to see signs of macroeconomic challenges along with inventory digestion impacting customer spending and this has intensified through the second quarter. In the second half we expect these trends to continue to impact our business, meaning we now see second half net sales broadly similar to the first half in both Network Infrastructure and Mobile Networks with some sequential improvement visible into Q4.

We have therefore reduced our net sales outlook for 2023 to EUR 23.2 billion to EUR 24.6 billion from the prior EUR 24.6 billion to EUR 26.2 billion. Proactive action by our business groups to manage cost is largely mitigating the impact to our operating margin and hence we only narrow the range to 11.5% to 13.0% from the prior 11.5% to 14.0%.

Looking beyond 2023, in Network Infrastructure we believe these impacts are mostly short-term in nature and that moving forward we see growth opportunities supported by the work we have been doing to diversify our customer base by growing in enterprise and webscale. In Mobile Networks there is still substantial need for operators to invest in 5G globally with only approximately 25% of the potential mid-band 5G base stations so far deployed outside China. We also remain focused on taking the necessary actions to improve our operating margin to double-digit. For the Group we remain committed to achieving at least 14% comparable operating margin longer-term.

Finally, given the strength of our balance sheet and EUR 3.7 billion net cash position I'm confident we have a firm foundation from which to navigate this period of uncertainty. I would like to thank all the Nokia employees for their hard work, cost focus and continued commitment.

## Shareholder distribution

### Dividend

Under the authorization by the Annual General Meeting held on 4 April 2023, the Board of Directors may resolve on the distribution of an aggregate maximum of EUR 0.12 per share to be paid in respect of financial year 2022. The authorization will be used to distribute dividend and/or assets from the reserve for invested unrestricted equity in four installments during the authorization period, in connection with the quarterly results, unless the Board decides otherwise for a justified reason.

On 20 July 2023, the Board resolved to distribute a dividend of EUR 0.03 per share. The dividend record date is on 25 July 2023 and the dividend will be paid on 3 August 2023. The actual dividend payment date outside Finland will be determined by the practices of the intermediary banks transferring the dividend payments.

Following this announced distribution, the Board's remaining distribution authorization is a maximum of EUR 0.06 per share.

### Share buyback program

In February 2022, Nokia's Board of Directors initiated a share buyback program to repurchase shares to return up to EUR 600 million of cash to shareholders in tranches over a period of two years. The second EUR 300 million phase of the share buyback program started in January 2023 and it will end at the latest by 21 December 2023. Under this phase, Nokia has by 30 June 2023 repurchased 40 145 500 of its own shares at an average price per share of approximately EUR 4.14.

## Outlook

### Full Year 2023

Net sales <sup>1</sup>	EUR 23.2 billion to EUR 24.6 billion (-4% to +2% growth in constant currency)
Comparable operating margin <sup>2</sup>	11.5 to 13.0%
Free cash flow <sup>2</sup>	20 to 50% conversion from comparable operating profit

<sup>1</sup>Assuming the rate 1 EUR = 1.09 USD as of 30 June 2023 continues for the remainder of 2023 along with actual H1 foreign exchange rates (adjusted from prior 1.09 USD rate as of 31 March 2023). <sup>2</sup>Please refer to Performance measures section in this report for a full explanation of how these terms are defined.

Nokia announced an update to its financial outlook for 2023 on 14 July 2023. Nokia's financial outlook prior to this was for net sales of EUR 24.6 billion to EUR 26.2 billion, a comparable operating margin of 11.5% to 14.0% and free cash flow of 20 to 50% conversion from comparable operating profit. The updates to Nokia's outlook assumptions highlighted below are already incorporated in the revised guidance.

The outlook, long-term targets and all of the underlying outlook assumptions described below are forward-looking statements subject to a number of risks and uncertainties as described or referred to in the Risk Factors section later in this report. Along with Nokia's official outlook targets provided above, below are outlook assumptions by business group that support the group level outlook. The comments for relative growth by business group are provided to give a reference on how we expect each to perform relative to the overall group.

	2023 total addressable market		Nokia business group assumptions	
	Size (EUR bn) <sup>1</sup>	Constant currency growth	Net sales growth	Operating margin
Network Infrastructure <sup>2</sup>	44 (update)	1% (update)	Below group (update)	12.0 to 14.0% (update)
Mobile Networks <sup>3</sup>	47 (update)	-2% (update)	Faster than group	6.0 to 8.0% (update)
Cloud and Network Services	27 (update)	3%	Faster than group (update)	6.0 to 8.0% (update)

<sup>1</sup>Total addressable market forecasts assume the rate 1 EUR = 1.09 USD as of 30 June 2023 continues for the remainder of 2023 along with actual H1 foreign exchange rates. The addressable market is excluding Russia and Belarus. <sup>2</sup>Excluding Submarine Networks. <sup>3</sup>Excluding China.

Nokia provides the following approximate outlook assumptions for additional items concerning 2023:

	Full year 2023	Comment
Nokia Technologies operating profit	Largely stable	Assuming closure of outstanding litigation / renewal discussions we expect largely stable operating profit in Nokia Technologies in 2023. Nokia currently assumes free cash flow will be meaningfully greater than operating profit in Nokia Technologies. (update)
Group Common and Other operating profit	Negative EUR 400 million (update)	This includes central function costs which are expected to be largely stable at below EUR 200 million and an increase in investment in long-term research now above EUR 100 million. This line also accounts for Radio Frequency Systems (RFS) and could be impacted by any positive or negative revaluations in Nokia's venture funds in 2023.
Comparable financial income and expenses	EUR 0 to negative EUR 100 million (update)	Reflecting year-to-date results and the impact of higher interest expenses.
Comparable income tax rate	~25%	Following the re-recognition of deferred tax assets at the end of 2022 we now provide an assumption based on a % tax rate instead of an absolute amount.
Cash outflows related to income taxes	EUR 700 million	Cash outflows related to income taxes are expected to increase due to mandatory capitalization of R&D costs under U.S. tax laws as well as evolving regional mix.
Capital Expenditures	EUR 700 million	

## Long-term targets

Nokia's long-term targets remain unchanged from those introduced with its Q4 2021 financial results. The targets had an associated timeline of 3-5 years which remains unchanged and implies by 2024-2026. These targets remain intended to show Nokia's ambition to deliver continuous improvement in the business over the time period.

Net sales	Grow faster than the market
Comparable operating margin <sup>1</sup>	≥ 14%
Free cash flow <sup>1</sup>	55 to 85% conversion from comparable operating profit

<sup>1</sup>Please refer to Performance measures section in this report for a full explanation of how these terms are defined.

## Financial Results

### Q2 2023 compared to Q2 2022

#### Net sales

In Q2 2023, reported net sales decreased 3% and were negatively impacted by foreign exchange rate fluctuations.

On a constant currency basis, Nokia's net sales were flat year-on-year, with growth across all business groups except Network Infrastructure. Mobile Networks increased 5% as India 5G deployments drove growth for the business, while North American customers continued to evaluate overall spending and deplete inventories reducing net sales in this region. Nokia Technologies grew 10%, reflecting EUR 80 million of catch-up net sales related to deals signed in the quarter, while Cloud and Network Services increased 2%. Network Infrastructure declined 6%, reflecting short-term challenges related to the macroeconomic environment primarily impacting North America.

#### Gross margin

Reported gross margin decreased 200 basis points to 38.2% in Q2 2023 and comparable gross margin decreased 180 basis points to 38.8%. Gross margin performance reflected the negative impact of regional mix in Mobile Networks, somewhat offset by stronger gross margin in Network Infrastructure and the catch-up net sales in Nokia Technologies.

#### Operating profit and margin

Reported operating profit in Q2 2023 was EUR 474 million, or 8.3% of net sales, down from 9.6% in the year-ago quarter.

Comparable operating profit decreased to EUR 626 million, while comparable operating margin was 11.0%, down from 12.2% in the year-ago quarter. The lower gross margin was somewhat offset by lower operating expenses, mainly reflecting cost discipline and lower variable pay accruals, as well as a net positive fluctuation in other operating income and expenses, related to hedging and the sale of digital assets, partly offset by the impact from Nokia's venture fund investments.

Nokia's venture fund investments generated a loss of approximately EUR 10 million in Q2 2023 compared to a benefit of approximately EUR 40 million in Q2 2022. The impact of hedging in Q2 2023 was positive EUR 29 million, compared to a negative impact of EUR 24 million in Q2 2022.

In Q2 2023, the difference between reported and comparable operating profit was primarily related to the amortization of acquired intangible assets, restructuring and associated charges, the change in provisions related to past acquisitions and the partial reversal of provision associated with a country exit that was made in Q1 2022. In Q2 2022, the difference between reported and comparable operating profit was primarily related to the amortization of acquired intangible assets and restructuring and associated charges.

#### Profit for the period

Reported net profit in Q2 2023 was EUR 289 million, compared to EUR 460 million in Q2 2022. Comparable net profit in Q2 2023 was EUR 414 million, compared to EUR 585 million in Q2 2022. The decline in comparable net profit was primarily driven by the lower comparable operating profit, higher income tax as we benefited in the prior year from an off-balance sheet deferred tax asset and a net negative fluctuation in financial income and expenses, which mainly reflected unfavorable foreign exchange fluctuations.

Apart from the items impacting comparability included in operating profit (and their associated tax effects), the difference between reported and comparable net profit in Q2 2023 was related to the divestment of business and the change in financial liability to acquire Nokia Shanghai-Bell non-controlling interest. In Q2 2022, the difference between reported and comparable net profit was related to the change in financial liability to acquire Nokia Shanghai-Bell non-controlling interest.

#### Earnings per share

Reported diluted EPS was EUR 0.05 in Q2 2023, compared to EUR 0.08 in Q2 2022. Comparable diluted EPS was EUR 0.07 in Q2 2023 compared to EUR 0.10 in Q2 2022.

#### Comparable return on Invested Capital (ROIC)

Q2 2023 comparable ROIC was 13.9%, compared to 18.5% in Q2 2022. The decrease reflected higher average invested capital for the rolling four quarters, combined with slightly lower operating profit after tax for the rolling four quarters. The higher average invested capital reflected growth in average total equity and a decrease in average total cash and interest-bearing financial investments, partially offset by a decrease in average total interest-bearing liabilities.

#### Cash performance

During Q2 2023, net cash decreased EUR 644 million, resulting in an end-of-quarter net cash balance of EUR 3.7 billion. Total cash decreased EUR 783 million sequentially to EUR 7.8 billion. Free cash flow was negative EUR 380 million in Q2 2023.

## Segment Details

### Network Infrastructure

EUR million	Q2'23	Q2'22	YoY change	Constant currency YoY change	Q1-Q2'23	Q1-Q2'22	YoY change	Constant currency YoY change
Net sales	1 978	2 153	(8)%	(6)%	4 227	4 127	2%	3%
- IP Networks	618	716	(14)%	(11)%	1 400	1 394	0 %	1%
- Optical Networks	492	437	13%	16%	1 025	801	28%	29%
- Fixed Networks	596	713	(16)%	(14)%	1 246	1 383	(10)%	(10)%
- Submarine Networks	272	287	(5)%	(5)%	556	549	1%	3%
Gross profit	734	763	(4)%		1 590	1 447	10%	
Gross margin %	37.1%	35.4%	170bps		37.6%	35.1%	250bps	
Operating profit	260	247	5%		604	442	37%	
Operating margin %	13.1%	11.5%	160bps		14.3%	10.7%	360bps	

Network Infrastructure **net sales** declined 8% on a reported basis and 6% on a constant currency basis in the second quarter. The business is currently experiencing some short-term challenges which are largely related to a return to more normal lead times, as well as macroeconomic uncertainty. While this is impacting visibility, Network Infrastructure continues to develop opportunities to gain market share across the portfolio.

**IP Networks** net sales declined 11% on a constant currency basis, primarily reflecting weakness in North America CSPs as customers continue to evaluate their spending, as well as a small decline in Asia Pacific. All other regions grew, with notably strong performance in Europe. Net sales to Enterprise customers grew at a double-digit rate year-on-year.

**Optical Networks** net sales grew 16% on a constant currency basis showing continued strong momentum and customer engagement with our PSE-V solutions. Growth was driven primarily by India.

**Fixed Networks** net sales declined 14% on a constant currency basis, in comparison to a strong year-ago quarter. The overall decline was driven by North America, where the slowdown in fixed wireless access continued to impact the business, as it remains sensitive to a small number of customers. Elsewhere, net sales grew in Europe and Middle East & Africa.

**Submarine Networks** net sales declined 5% on a constant currency basis, mainly related to project timing as the business executes against its strong order backlog.

**Gross margin** increased year-on-year primarily due to positive product mix and lower indirect cost of sales such as logistics costs compared to the year-ago period.

**Operating margin** improved year-on-year, driven by the gross margin expansion as well as a positive impact from the change in loss allowances on certain trade receivables, hedging and the sale of digital assets, all recorded in other operating income and expenses.

### Mobile Networks

EUR million	Q2'23	Q2'22	YoY change	Constant currency YoY change	Q1-Q2'23	Q1-Q2'22	YoY change	Constant currency YoY change
Net sales	2 623	2 593	1%	5%	5 190	4 860	7%	9%
Gross profit	877	1 043	(16)%		1 744	1 945	(10)%	
Gross margin %	33.4%	40.2%	(680)bps		33.6%	40.0%	(640)bps	
Operating profit	206	291	(29)%		342	462	(26)%	
Operating margin %	7.9%	11.2%	(330)bps		6.6%	9.5%	(290)bps	

In Q2 2023, Mobile Networks **net sales** grew 1% on a reported and 5% on a constant currency basis.

Growth in Q2 was once again largely driven by the continuation of 5G deployments in India and market share expansion in the region. Mobile Networks also grew in Europe where we continued to gain market share. These were somewhat offset by declines in other regions, particularly in North America, as customers continued to evaluate spending and deplete their inventories in the quarter.

The decline in **gross margin** in the second quarter was primarily related to regional mix. Given the slower recovery in North America, we expect gross margin to only improve towards the end of the year.

**Operating margin** declined year-on-year in Q2 2023 mainly reflecting the regional mix that impacted gross margin. This was somewhat mitigated by a decline in operating expenses, reflecting lower variable pay accruals year-on-year, and the positive impacts from hedging and the sale of digital assets, both of which are recorded in other operating income and expenses.

## Cloud and Network Services

EUR million	Q2'23	Q2'22	YoY change	Constant currency YoY change	Q1-Q2'23	Q1-Q2'22	YoY change	Constant currency YoY change
Net sales	742	753	(1)%	2%	1 501	1 490	1%	2%
Gross profit	271	280	(3)%		521	564	(8)%	
Gross margin %	36.5%	37.2%	(70)bps		34.7%	37.9%	(320)bps	
Operating profit/(loss)	16	(5)	(420)%		(4)	14	(129)%	
Operating margin %	2.2 %	(0.7)%	290bps		(0.3)%	0.9%	(120)bps	

Cloud and Network Services **net sales** declined 1% on a reported basis, but grew 2% on a constant currency basis. From a product perspective, on a constant currency basis growth in Core Networks and Enterprise Solutions was partly offset by declines in both Cloud and Cognitive Services and Business Applications.

From a regional perspective, on a constant currency basis Cloud and Network Services saw strong growth in Europe and Middle East & Africa, more than offsetting a decline in North America along with some small movements in other regions.

**Gross margin** declined, as the business once again saw a shift from software sales towards lower margin hardware sales in the quarter.

**Operating margin** increased year-on-year as the lower gross profit was more than offset by the positive impacts from hedging and the sale of digital assets in other operating income and expense, as well as a decline in operating expenses, reflecting lower variable pay accruals year-on-year. As we progress with portfolio rebalancing in Cloud and Network Services, we also remain focused on carefully managing the cost base of the business.

## Nokia Technologies

EUR million	Q2'23	Q2'22	YoY change	Constant currency YoY change	Q1-Q2'23	Q1-Q2'22	YoY change	Constant currency YoY change
Net sales	334	305	10%	10%	576	611	(6)%	(6)%
Gross profit	334	304	10%		576	609	(5)%	
Gross margin %	100.0%	99.7%	30bps		100.0%	99.7%	30bps	
Operating profit	236	217	9%		385	437	(12)%	
Operating margin %	70.7%	71.1%	(40)bps		66.8%	71.5%	(470)bps	

Nokia Technologies **net sales** increased 10% on both a reported basis and constant currency basis in the second quarter. Net sales benefited from EUR 80 million of catch-up net sales related to deals signed in the quarter. Excluding this - net sales would have declined due to the same factors that impacted the first quarter. In the second quarter Nokia Technologies' annual net sales run-rate remains approximately EUR 1.0 billion.

In the second quarter Nokia signed a number of new licensing agreements. Considering our current base of agreements, we now see that Nokia Technologies' net sales annual run-rate would be EUR 1.1 billion from January 2024, subject to any other material developments.

Nokia remains in litigation/renewal situations with Oppo and Vivo regarding their license agreements that ended during 2021. Nokia will continue to prioritize protecting the value of its portfolio over achieving specific timelines. Nokia continues to expect to return to an annual run-rate of EUR 1.4-1.5 billion of revenue as we work through the smartphone license renewal cycle and continue to grow in new focus areas such as automotive, consumer electronics, IoT and multimedia.

**Operating profit** increased while operating margin declined year-on-year as higher net sales were somewhat offset by an increase in operating expenses.

## Group Common and Other

EUR million	Q2'23	Q2'22	YoY change	Constant currency YoY change	Q1-Q2'23	Q1-Q2'22	YoY change	Constant currency YoY change
Net sales	35	77	(55)%	(53)%	84	152	(45)%	(46)%
Gross profit/(loss)	(1)	(4)			(8)	(2)		
Gross margin %	(2.9)%	(5.2)%	230bps		(9.5)%	(1.3)%	(820)bps	
Operating profit/(loss)	(91)	(36)			(222)	(59)		
Operating margin %	(260.0)%	(46.8)%	(21 320)bps		(264.3)%	(38.8)%	(22 550)bps	

Group Common and Other **net sales** declined 55% on a reported basis and 53% on a constant currency basis related to reduced net sales from Radio Frequency Systems, mainly driven by the divested business carved out during Q2 2023.

The decrease in **operating result** was primarily driven by Nokia's venture fund investments, as well as higher

operating expenses. Venture fund losses were approximately EUR 10 million in Q2 2023, compared to gains of approximately EUR 40 million in Q2 2022.

## Net sales by region

EUR million	Q2'23	Q2'22	YoY change	Constant currency YoY change	Q1-Q2'23	Q1-Q2'22	YoY change	Constant currency YoY change
Asia Pacific	527	575	(8)%	(3)%	1 105	1 209	(9)%	(5)%
Europe	1 523	1 378	11%	11%	2 996	2 777	8%	8%
Greater China	344	418	(18)%	(12)%	680	810	(16)%	(12)%
India	1 043	241	333%	355%	1 896	440	331%	341%
Latin America	230	275	(16)%	(15)%	462	501	(8)%	(8)%
Middle East & Africa	478	484	(1)%	3%	915	892	3%	5%
North America	1 293	2 216	(42)%	(40)%	2 959	4 042	(27)%	(27)%
Submarine Networks <sup>1</sup>	272	287	(5)%	(5)%	556	549	1%	3%
<b>Total</b>	<b>5 710</b>	<b>5 873</b>	<b>(3)%</b>	<b>0%</b>	<b>11 569</b>	<b>11 220</b>	<b>3%</b>	<b>4%</b>

<sup>1</sup>Nokia provides net sales for the Submarine Networks business separately from the rest of the Group to improve the usefulness of disclosed information by removing volatility caused by the specific nature of the Submarine Networks business.

Reported changes are disclosed in the table above. The regional commentary below focuses on constant currency results, to exclude the impact of foreign exchange rate fluctuations. The commentary is based on regions excluding Submarine Networks, given the nature of that business leads to significant regional volatility between periods.

The net sales performance in **Asia Pacific** reflected slight declines in Network Infrastructure, Mobile Networks and Cloud and Network Services.

**Europe** net sales were positively impacted by growth in Nokia Technologies (which is entirely reported in Europe). Excluding Nokia Technologies, net sales in Europe increased at a double-digit rate driven by growth across all business groups with particularly strong performances in IP Networks and Fixed Networks within Network Infrastructure and continued traction in Mobile Networks.

Within **Greater China** net sales decreased in both Mobile Networks and Network Infrastructure.

The strong growth in net sales in **India** was related to Mobile Networks, as 5G deployments continued to ramp in Q2 2023. Network Infrastructure also saw strong growth, mainly driven by Optical Networks.

Net sales performance in **Latin America** primarily reflected a decline in Mobile Networks.

**Middle East & Africa** growth was driven by Network Infrastructure and Cloud and Network Services, somewhat offset by a decline in Mobile Networks.

The strong decline in **North America** reflected the expected decline in Mobile Networks following a strong year of deployments in 2022, in addition to customers continuing to evaluate spending and deplete their inventories in the quarter. Network Infrastructure also saw a strong decline driven by IP Networks and Fixed Networks. To a lesser extent, Cloud and Network Services declined driven by both Core Networks and Business Applications.

## Net sales by customer type

EUR million	Q2'23	Q2'22	YoY change	Constant currency YoY change	Q1-Q2'23	Q1-Q2'22	YoY change	Constant currency YoY change
Communications service providers (CSP)	4 561	4 803	(5)%	(2)%	9 286	9 176	1%	3%
Enterprise	510	409	25%	27%	1 076	752	43%	43%
Licensees	334	305	10%	10%	576	611	(6)%	(6)%
Other <sup>1</sup>	304	356	(15)%	(14)%	631	681	(7)%	(6)%
<b>Total</b>	<b>5 710</b>	<b>5 873</b>	<b>(3)%</b>	<b>0%</b>	<b>11 569</b>	<b>11 220</b>	<b>3%</b>	<b>4%</b>

<sup>1</sup>Includes net sales of Submarine Networks which operates in a different market, and Radio Frequency Systems (RFS), which is being managed as a separate entity, and certain other items, such as eliminations of inter-segment revenues. Submarine Networks and RFS net sales also include revenue from enterprise customers and communications service providers.

Macroeconomic uncertainty impacted CSP spending in Q2 2023, which drove a net sales decline of 2% in constant currency.

Enterprise net sales increased 27% in constant currency in Q2 2023, as we witnessed strong growth to both enterprise verticals and webscale customers, particularly benefiting Network Infrastructure. Customer engagement also remains positive as we added 90 new Enterprise customers in

the quarter. Private wireless continued to show strong double-digit growth in the quarter and now has more than 635 customers.

Refer to the Nokia Technologies section of this report for a discussion on net sales to Licensees.

The decline in 'Other' net sales relates to a decrease in net sales in both Submarine Networks and RFS.

## Q2 2023 to Q2 2022 bridge for net sales and operating profit

EUR million	Q2'23	Volume, price, mix and other	Venture fund valuation	Foreign exchange impact	Items affecting comparability	Q2'22
Net sales	5 710	11	—	(174)	—	5 873
Operating profit	474	(66)	(53)	31	(2)	564
Operating margin %	8.3%					9.6%

The table above shows the change in net sales and operating profit compared to the year-ago quarter. Net sales benefited slightly from an operational standpoint, but was negatively impacted by foreign exchange rate fluctuations. Operating profit saw a negative impact from an operational standpoint, a negative impact from Nokia's venture fund valuations, a positive impact from foreign exchange rate fluctuations, as well

as a slight negative impact from items affecting comparability as further described below. The positive impact to operating profit seen from foreign exchange rate fluctuations is a combination of a negative impact to operating profit related to our mix of currency exposures, which was more than offset by our hedging program.

## Reconciliation of reported operating profit to comparable operating profit

EUR million	Q2'23	Q2'22	YoY change	Q1-Q2'23	Q1-Q2'22	YoY change
<b>Reported operating profit</b>	<b>474</b>	564	(16)%	<b>900</b>	918	(2)%
Amortization of acquired intangible assets	87	100		176	200	
Restructuring and associated charges	53	50		81	80	
Change in provisions related to past acquisitions	20	—		20	—	
Costs associated with country exit	(13)	—		(48)	104	
Divestment of businesses	4	—		(22)	—	
Other, net	1	(1)		(1)	(6)	
<b>Comparable operating profit</b>	<b>626</b>	714	(12)%	<b>1 106</b>	1 296	(15)%

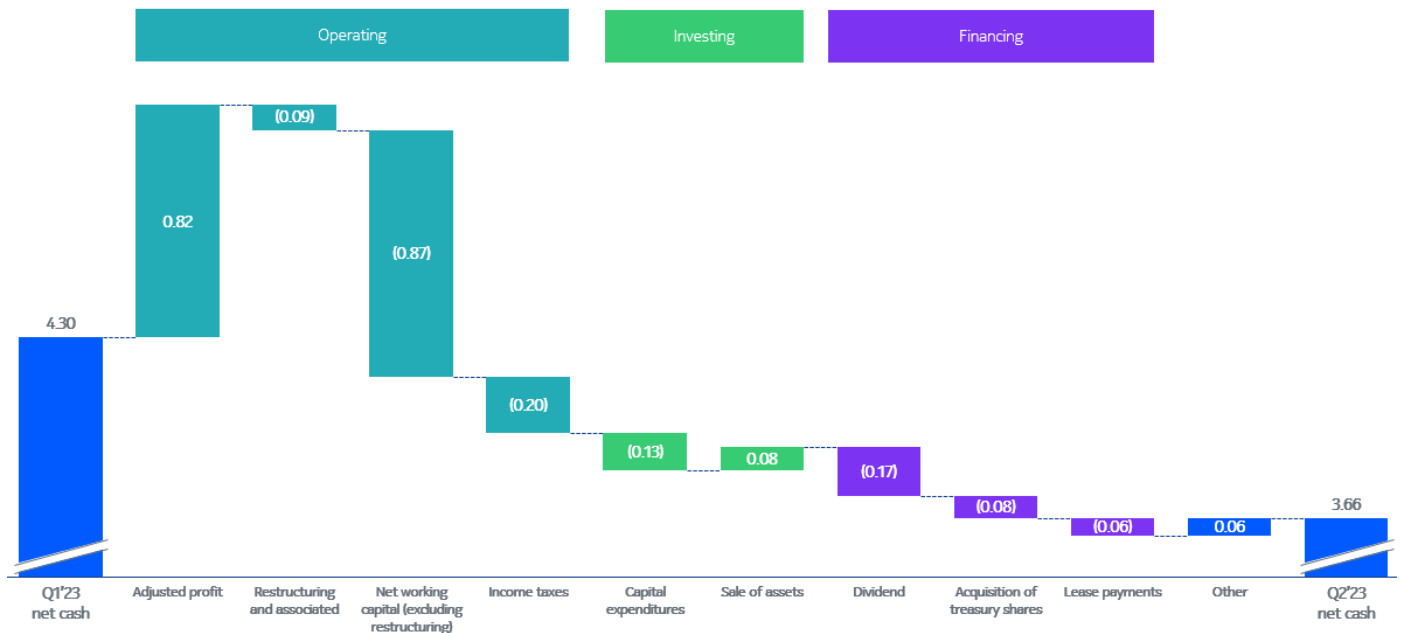
The comparable operating profit that Nokia discloses is intended to provide meaningful supplemental information to both management and investors regarding Nokia's underlying business performance by excluding certain items of income and expenses that may not be indicative of Nokia's business operating results. Comparable operating profit is used also in determining management remuneration.

In Q2 2023 the main adjustments related to the amortization of acquired intangible assets which is primarily related to purchase price allocation of the Alcatel-Lucent acquisition, restructuring charges mainly related to the ongoing restructuring program (discussed later in this interim report), the change in provisions related to past acquisitions and the partial reversal of a provision associated with a country exit that was made in Q1 2022.



## Cash and cash flow in Q2 2023

EUR billion



EUR million, at end of period

	Q2'23	Q1'23	QoQ change	Q4'22	YTD change
Total cash and interest-bearing financial investments	7 831	8 614	(9)%	9 244	(15)%
Net cash and interest-bearing financial investments <sup>1</sup>	3 660	4 304	(15)%	4 767	(23)%

<sup>1</sup>Net cash and interest-bearing financial investments does not include lease liabilities. For details, please refer to the Performance measures section in this report.

### Free cash flow

During Q2 2023, Nokia's free cash flow was negative EUR 380 million, as operating profit was more than offset by cash outflows related to net working capital, as well as capital expenditures, restructuring and income taxes.

### Net cash used in operating activities

Net cash used in operating activities was driven by:

- Nokia's adjusted profit of EUR 821 million.
- Approximately EUR 90 million of restructuring and associated cash outflows, related to our current and previous cost savings programs.
- Excluding the restructuring and associated cash outflows, the decrease in net cash related to net working capital was approximately EUR 870 million, as follows:
  - The decrease in receivables was approximately EUR 50 million primarily related to an increase in the balance sheet impact from the sale of receivables in the quarter.
  - The increase in inventories was approximately EUR 50 million.
  - The decrease in liabilities was approximately EUR 870 million, primarily related to 2022 performance-related employee variable pay and a decrease in contract liabilities, partly offset by an increase in accounts payable.
- An outflow related to cash taxes of approximately EUR 200 million.

### Net cash used in investing activities

- Net cash used in investing activities was related primarily to capital expenditures of approximately EUR 130 million, partly offset by net cash inflows related to the sale of assets of approximately EUR 80 million.

### Net cash used in financing activities

- Net cash used in financing activities was related primarily to dividend payments of approximately EUR 170 million, the acquisition of treasury shares of approximately EUR 80 million and lease payments of approximately EUR 60 million.

### Change in total cash and net cash

In Q2 2023, the approximately EUR 140 million difference between the change in total cash and net cash was primarily due to repayment of debt and changes in the carrying amounts of certain issued bonds, as a result of interest rate fluctuations.

Foreign exchange rates had a minimal impact on net cash.

## January-June 2023 compared to January-June 2022

### Net sales

In the first six months of 2023, reported net sales increased 3%, negatively impacted by foreign exchange rate fluctuations.

On a constant currency basis, Nokia net sales increased 4% with growth in Mobile Networks, Network Infrastructure and Cloud and Network Services. Group Common and Other and Nokia Technologies net sales decreased.

### Gross margin

Both reported and comparable gross margin declined year-on-year in the first six months of 2023. Reported gross margin decreased 260 basis points to 37.8% and comparable gross margin decreased 250 basis points to 38.2%. The gross margin decline was primarily driven by unfavorable regional mix in Mobile Networks, partially offset by Network Infrastructure.

### Operating profit and margin

Reported operating profit in the first six months of 2023 was EUR 900 million, or 7.8% of net sales, down from EUR 918 or 8.2% in the year-ago period. Comparable operating profit decreased to EUR 1 106 million from EUR 1 296 million year-on-year, while comparable operating margin declined 200 basis points year-on-year to 9.6%. Comparable operating profit decreased in the first six months of 2023 mainly due to lower gross profit.

In the first six months of 2023, the difference between reported and comparable operating profit was primarily related to the amortization of acquired intangible assets, restructuring and associated charges and the partial reversal of provision associated with a country exit. In the first six months of 2022, the difference between reported and comparable operating profit was primarily related to the amortization of acquired intangible assets, provision associated with a country exit and restructuring and associated charges.

### Profit for the period

Reported net profit in the first six months of 2023 was EUR 578 million, compared to EUR 679 million in the year-ago period. Comparable net profit was EUR 756 million, compared to EUR 1 001 million in the year-ago period. The decrease in comparable net profit reflects a decrease in comparable operating profit and higher income taxes. This was partly offset by lower share of losses of associates and joint ventures and a net positive fluctuation in financial income and expenses.

Apart from the items impacting comparability included in operating profit (and their associated tax effects), the difference between reported and comparable net profit in the first six months of 2023 was related to the divestment of business and the change in financial liability to acquire Nokia Shanghai-Bell non-controlling interest. In the year-ago, the difference between reported and comparable net profit was related to loss allowances on customer financing offset by the change in financial liability to acquire Nokia Shanghai-Bell non-controlling interest.

### Earnings per share

Reported diluted EPS in the first six months of 2023 was EUR 0.10, compared to EUR 0.12 in the year-ago period. Comparable diluted EPS in the first six months of 2023 was EUR 0.13 compared to EUR 0.17 in the year-ago period.

### Cash performance

During the first six months of 2023, net cash decreased EUR 1 107 million, resulting in an end-of-period net cash balance of EUR 3.7 billion. Total cash decreased EUR 1 413 million, resulting in total cash balance of EUR 7.8 billion. Free cash flow was negative EUR 527 million in the first six months of 2023.

## Sustainability

### Our strategy and focus areas

Nokia's refreshed corporate strategy states our ambition to develop ESG into a competitive advantage and maximize our positive impact on other industries, society, and the world around us. Our ESG strategy will help us achieve those ambitions. It focuses on five areas: environment, industrial digitalization, security and privacy, bridging the digital divide, and responsible business. Here we share some developments across our focus areas from the past quarter.

#### Environment

Nokia is keenly aware of its responsibilities to reduce emissions. That is why we have set ourselves a target to reduce our GHG emissions by 50% between 2019 and 2030 across our value chain. In April, our work to reach and exceed this and other targets was recognized by the Financial Times who named us one of Europe's Climate Leaders.

One of the most important ways we will achieve our climate goals is by creating products and services with market-leading energy-efficiency. In the second quarter we launched our new expanded portfolio of energy-efficient site solutions designed for our industry-leading AirScale baseband portfolio.

In April, Nokia commenced its 14th annual supplier climate data collection program. The 2023 program invites 624 of our suppliers to disclose key climate datapoints such as their scope 1, 2 and 3 emissions, renewable electricity use and climate targets. We also invite them to identify potential future opportunities to collaborate with us on CO2e reduction.

#### Industrial Digitalization

In June we were able to share that the Irish energy company ESB Networks had awarded a contract to Sigma Wireless and Nokia for the development of a purpose-built, leading-edge, mission-critical private mobile network. This network will help ESB Networks to integrate more renewable energy to the grid and decarbonize the electrical network among other benefits.

Later in June we partnered with DXC Technology, a Fortune 500 global technology services company, to launch DXC Signal Private LTE and 5G, a managed secure private wireless network and digitalization platform solution that helps industrial enterprises digitally transform their operations, especially in key market segments including manufacturing, energy, healthcare, logistics, transportation, and education.

#### Security and privacy

During the quarter, Nokia and its partners announced the successful completion of Europe's first live hybrid quantum encryption key trial. The trial with Proximus highlights how quantum cryptography can be implemented in a live network to keep users safe and secure.

In May, we announced that Nokia had been ranked as an industry leader in network security by analysts at GigaOm. The recognition was specifically awarded for the flexible and secure Nokia XDR solution, "NetGuard Cybersecurity Dome", available as-a-service, which allows security operations teams to select from a comprehensive use case catalog to cover their entire critical infrastructure technology, from the Core to Transport.

#### Bridging the digital divide

At Nokia, we create technology that helps the world act together. This is a fundamentally democratic purpose – we believe that everyone deserves top-quality connectivity.

In the second quarter, we were selected by MetaLINK to expand fixed wireless broadband access across rural America. The partnership will leverage MetaLINK's CBRS spectrum, as well as radio access solutions from Nokia's AirScale portfolio, to provide high-bandwidth internet services for people who have limited access.

In June, we announced the launch of purpose-built 5G Fixed Wireless Access receiver to connect the North American underserved. The Nokia FastMile 5G receiver uses a high gain antenna to deliver high speeds over long distances making it ideally suited to serve both suburban and rural underserved communities.

#### Responsible business

Sustainable business requires the responsible and conflict-free sourcing of minerals via legitimate trade that benefits the countries and communities in which minerals are found. We are part of the Responsible Minerals initiative program under the Responsible Business Alliance and in May we have once again released our annual Conflict Minerals Report.

We do not tolerate slavery, servitude, human trafficking nor forced or bonded labor in our own operations or in our supply chain. At the end of the second quarter, we also published our latest Modern Slavery Statement.

Regular compliance training and communications are a key foundational element of our compliance program. Over the quarter we launched three short and engaging training modules to keep these high-risk areas top of mind for employees. We have also implemented newly developed reports based on real-time data analytics, which improve our ability to identify undisclosed conflicts of interest and ensure that commercial third parties have completed the appropriate due diligence process. On the privacy front, we're introducing live targeted training sessions for employees in certain roles and making ongoing enhancements to Nokia's data privacy governance structure to reflect changes in law and our global footprint.

## Additional information

### Cost Savings Program

In Q1 2021, we announced plans to reset our cost base, targeting a reduction of approximately EUR 600 million by the end of 2023.

Considering the recent macroeconomic uncertainty and its impact on our end markets, the pace of restructuring has increased in 2023. However, the overall size of the plan remains unchanged and continues to depend on the evolution of our end markets, consistent with our commentary when we announced the plan.

We continue to expect these cost savings to result in approximately EUR 500-600 million of restructuring and associated charges by the end of 2023.

We continue to expect total restructuring and associated cash outflows to be approximately EUR 1 050-1 150 million. This total includes approximately EUR 500 million of cash outflows related to our previous restructuring program.

In EUR million, rounded to the nearest EUR 50 million	Actual		Expected amounts for		Total amount
	2021	2022	2023	Beyond 2023	
Recurring gross cost savings	150	250	100	100	600
- cost of sales	50	100	50	50	250
- operating expenses	100	150	50	50	350
Restructuring and associated charges related to our most recent cost savings program	250	150	150		500-600
Restructuring and associated cash outflows <sup>1</sup>	350	300	300	150	1 050-1 150

<sup>1</sup>Includes cash outflows related to the most recent cost savings program, as well as the remaining cash outflows related to our previous programs.

#### Restructuring and associated charges by business group

##### In EUR million, rounded to the nearest EUR 50 million

Mobile Networks	300-350
Network Infrastructure	~100
Cloud and Network Services	100-150
Total restructuring and associated charges	500-600

## Significant events

### January – June 2023

On 25 January 2023, Nokia announced it had appointed Esa Niinimäki as Chief Legal Officer and member of the Group Leadership Team. Niinimäki has worked at Nokia for more than 15 years where he has held multiple positions, most recently Interim Chief Legal Officer.

On 9 February 2023, Nokia announced it commenced an offer to purchase the outstanding EUR 750 million 2.00% notes due 15 March 2024 (the “2024 Notes”), EUR 500 million 2.375% notes due 15 May 2025 (the “2025 Notes”) and EUR 750 million 2.00% notes due 11 March 2026 (the “2026 Notes”), up to a maximum cash consideration of EUR 700 million (the “Tender Offer”). The purpose of the Tender Offer is to manage the overall indebtedness of Nokia and to extend Nokia’s debt maturity profile in an efficient manner.

Nokia accepted tenders for EUR 372 million (49.66% of the nominal amount) of the 2024 Notes, EUR 208 million (41.57% of the nominal amount) of the 2025 Notes and EUR 120 million (15.96% of the nominal amount) of the 2026 Notes. The Tender Offer was settled on 21 February 2023.

On 21 February 2023, Nokia issued EUR 500 million 4.375% sustainability-linked Notes due August 2031 under its 5 billion Euro Medium-Term Note Programme. The proceeds of the new notes are intended to fund the Tender Offer and for general corporate purposes.

On 2 March 2023, Nokia informed it had updated its capital management policy with a focus on sustaining investment grade rating and improving shareholder returns consistent with the performance of the business. Nokia now targets to maintain a net cash position in the range of 10-15% of net

sales. Nokia intends to maintain a net cash position around this level to ensure it can continue to invest in the necessary R&D to maintain and further improve its technology leadership, fund working capital requirements in support of the company’s growth ambitions and to maintain some flexibility for bolt-on acquisitions. Nokia’s previous target in terms of cash management was to maintain a total cash position equivalent to at least 30% of net sales.

On 4 April 2023, Nokia held its Annual General Meeting (AGM) in Helsinki. Shareholders were also able to follow the AGM through a webcast. Approximately 108 000 shareholders representing approximately 3.2 billion shares and votes were represented at the meeting. Among others, the following resolutions were made:

- The financial statements were adopted, and the Board of Directors and President and CEO were discharged from liability for the financial year 2022.
- The AGM decided that no dividend is distributed by a resolution of the AGM and authorized the Board to decide on the distribution of an aggregate maximum of EUR 0.12 per share as dividend from the retained earnings and/or as assets from the reserve for invested unrestricted equity. The Board will resolve separately on the amount and timing of each distribution. The authorization is valid until the opening of the next AGM.
- Sari Baldauf, Thomas Dannenfeldt, Lisa Hook, Jeanette Horan, Thomas Saueressig, Søren Skou, Carla Smits-Nusteling and Kai Öistämö were re-elected as members of the Board for a term ending at the close of the next AGM. In addition, the AGM resolved to elect Timo Ahopelto and

Elizabeth Crain as new members of the Board for the same term. In its assembly meeting that took place after the AGM, the Board re-elected Sari Baldauf as Chair of the Board and Søren Skou as Vice Chair of the Board.

- The annual fees of the Board members were increased by EUR 15 000 except for the Board Chair.
- The remuneration Report of the company's governing bodies was supported in an advisory vote.
- Deloitte Oy was re-elected as the auditor for Nokia for the financial year 2024 with Authorized Public Accountant Marika Nevalainen as the auditor in charge.
- The Board was authorized to resolve to repurchase a maximum of 550 million Nokia shares and to issue a

maximum of 550 million shares through issuance of shares or special rights entitling to shares in one or more issues. The authorizations are effective until 3 October 2024 and they terminated the corresponding authorizations granted by the AGM on 5 April 2022.

On 30 June 2023, Nokia announced it had signed a new long-term patent cross-license agreement with Apple which will replace the current license that is due to expire at the end of 2023. License covers Nokia's fundamental inventions in 5G and other technologies. The terms of the agreement remain confidential between the parties.

## Shares

The total number of Nokia shares on 30 June 2023, equaled 5 632 297 576. On 30 June 2023, Nokia and its subsidiary companies held 84 516 016 Nokia shares, representing

approximately 1.5% of the total number of Nokia shares and voting rights.

## Risk Factors

Nokia and its businesses are exposed to a number of risks and uncertainties which include but are not limited to:

- Competitive intensity, which is expected to continue at a high level;
- Our ability to ensure competitiveness of our product roadmaps and costs through additional R&D investments;
- Our ability to procure certain standard components and the costs thereof, such as semiconductors;
- Disturbance in the global supply chain;
- Accelerating inflation, increased global macro-uncertainty, major currency fluctuations and higher interest rates;
- Potential economic impact and disruption of global pandemics;
- War or other geopolitical conflicts, disruptions and potential costs thereof;
- Other macroeconomic, industry and competitive developments;
- Timing and value of new, renewed and existing patent licensing agreements with smartphone vendors, automotive companies, consumer electronics companies and other licensees;
- Results in brand and technology licensing; costs to protect and enforce our intellectual property rights; on-going litigation with respect to licensing and regulatory landscape for patent licensing;
- The outcomes of on-going and potential disputes and litigation;
- Timing of completions and acceptances of certain projects;
- Our product and regional mix;
- Uncertainty in forecasting income tax expenses and cash outflows, over the long-term, as they are also subject to possible changes due to business mix, the timing of patent licensing cash flow and changes in tax legislation, including potential tax reforms in various countries and OECD initiatives;
- Our ability to utilize our US and Finnish deferred tax assets and their recognition on our balance sheet;
- Our ability to meet our sustainability and other ESG targets, including our targets relating to greenhouse gas emissions; as well the risk factors specified under Forward-looking statements of this report, and our 2022 annual report on Form 20-F published on 2 March 2023 under Operating and financial review and prospects-Risk factors.

## Forward-looking statements

Certain statements herein that are not historical facts are forward-looking statements. These forward-looking statements reflect Nokia's current expectations and views of future developments and include statements regarding: A) expectations, plans, benefits or outlook related to our strategies, product launches, growth management, licenses, sustainability and other ESG targets, operational key performance indicators and decisions on market exits; B) expectations, plans or benefits related to future performance of our businesses (including the expected impact, timing and duration of potential global pandemics and the general or regional macroeconomic conditions on our businesses, our supply chain and our customers' businesses) and any future dividends and other distributions of profit; C) expectations and targets regarding financial performance and results of operations, including market share, prices, net sales, income, margins, cash flows, the timing of receivables, operating expenses, provisions, impairments, taxes, currency exchange rates, hedging, investment funds, inflation, product cost reductions, competitiveness, revenue generation in any specific region, and licensing income and payments;

D) ability to execute, expectations, plans or benefits related to changes in organizational structure and operating model; E) impact on revenue with respect to litigation/renewal discussions; and F) any statements preceded by or including "continue", "believe", "commit", "estimate", "expect", "aim", "influence", "will" or similar expressions. These forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond our control, which could cause our actual results to differ materially from such statements. These statements are based on management's best assumptions and beliefs in light of the information currently available to them. These forward-looking statements are only predictions based upon our current expectations and views of future events and developments and are subject to risks and uncertainties that are difficult to predict because they relate to events and depend on circumstances that will occur in the future. Factors, including risks and uncertainties that could cause these differences, include those risks and uncertainties identified in the Risk Factors above.

## Financial statement information

### Consolidated income statement (condensed)

EUR million	Note	Reported				Comparable			
		Q2'23	Q2'22	Q1-Q2'23	Q1-Q2'22	Q2'23	Q2'22	Q1-Q2'23	Q1-Q2'22
<b>Net sales</b>	2, 3	<b>5 710</b>	<b>5 873</b>	<b>11 569</b>	<b>11 220</b>	<b>5 710</b>	<b>5 873</b>	<b>11 569</b>	<b>11 220</b>
Cost of sales		(3 530)	(3 512)	(7 194)	(6 690)	(3 494)	(3 487)	(7 146)	(6 658)
<b>Gross profit</b>	2	<b>2 180</b>	<b>2 361</b>	<b>4 375</b>	<b>4 530</b>	<b>2 216</b>	<b>2 386</b>	<b>4 423</b>	<b>4 562</b>
Research and development expenses		(1 045)	(1 091)	(2 154)	(2 163)	(1 026)	(1 069)	(2 119)	(2 122)
Selling, general and administrative expenses		(703)	(728)	(1 432)	(1 403)	(618)	(623)	(1 259)	(1 204)
Other operating income and expenses		43	22	111	(46)	54	20	61	60
<b>Operating profit</b>	2	<b>474</b>	<b>564</b>	<b>900</b>	<b>918</b>	<b>626</b>	<b>714</b>	<b>1 106</b>	<b>1 296</b>
Share of results of associates and joint ventures		(13)	(6)	(19)	(32)	(13)	(6)	(19)	(32)
Financial income and expenses		(54)	(18)	(74)	(90)	(52)	(27)	(61)	(67)
<b>Profit before tax</b>		<b>407</b>	<b>541</b>	<b>808</b>	<b>797</b>	<b>562</b>	<b>681</b>	<b>1 026</b>	<b>1 197</b>
Income tax expense	5	(116)	(74)	(227)	(153)	(148)	(95)	(270)	(196)
<b>Profit from continuing operations</b>		<b>290</b>	<b>467</b>	<b>581</b>	<b>644</b>	<b>414</b>	<b>585</b>	<b>756</b>	<b>1 001</b>
(Loss)/profit from discontinued operations		(2)	(7)	(2)	35	—	—	—	—
<b>Profit for the period</b>		<b>289</b>	<b>460</b>	<b>578</b>	<b>679</b>	<b>414</b>	<b>585</b>	<b>756</b>	<b>1 001</b>
<b>Attributable to</b>									
Equity holders of the parent		290	457	569	669	415	582	746	991
Non-controlling interests		(1)	3	9	10	(1)	3	9	10
<b>Earnings per share attributable to equity holders of the parent</b>									
<b>Basic earnings per share, EUR</b>									
Continuing operations		0.05	0.08	0.10	0.11	0.07	0.10	0.13	0.18
Profit for the period		0.05	0.08	0.10	0.12	0.07	0.10	0.13	0.18
Average number of shares ('000 shares)		5 558 878	5 625 142	5 568 389	5 629 913	5 558 878	5 625 142	5 568 389	5 629 913
<b>Diluted earnings per share, EUR</b>									
Continuing operations		0.05	0.08	0.10	0.11	0.07	0.10	0.13	0.17
Profit for the period		0.05	0.08	0.10	0.12	0.07	0.10	0.13	0.17
Average number of shares ('000 shares)		5 616 185	5 677 742	5 623 523	5 686 387	5 616 185	5 677 742	5 623 523	5 686 387

The above condensed consolidated income statement should be read in conjunction with accompanying notes.

## Consolidated statement of comprehensive income (condensed)

EUR million	Reported			
	Q2'23	Q2'22	Q1-Q2'23	Q1-Q2'22
<b>Profit for the period</b>	<b>289</b>	<b>460</b>	<b>578</b>	<b>679</b>
<b>Other comprehensive income</b>				
Items that will not be reclassified to profit or loss				
Remeasurements of defined benefit plans	(225)	(42)	(146)	221
Income tax related to items that will not be reclassified to profit or loss	56	(6)	37	(80)
Items that may be reclassified subsequently to profit or loss				
Translation differences	(32)	902	(313)	1 240
Net investment hedges	36	(199)	111	(271)
Cash flow and other hedges	(16)	1	(15)	19
Financial assets at fair value through other comprehensive income	(14)	(11)	(37)	(16)
Other changes, net	3	—	—	(1)
Income tax related to items that may be reclassified subsequently to profit or loss	4	—	(10)	—
<b>Other comprehensive (loss)/income, net of tax</b>	<b>(188)</b>	<b>645</b>	<b>(373)</b>	<b>1 112</b>
<b>Total comprehensive income for the period</b>	<b>101</b>	<b>1 105</b>	<b>205</b>	<b>1 791</b>
<b>Attributable to:</b>				
Equity holders of the parent	105	1 101	200	1 779
Non-controlling interests	(4)	4	5	12

The above condensed consolidated statement of comprehensive income should be read in conjunction with accompanying notes.

## Consolidated statement of financial position (condensed)

EUR million	Note	30 June 2023	30 June 2022	31 December 2022
<b>ASSETS</b>				
Goodwill		5 591	5 776	5 667
Other intangible assets		1 136	1 489	1 263
Property, plant and equipment		1 962	1 917	2 015
Right-of-use assets		927	987	929
Investments in associated companies and joint ventures		170	211	199
Non-current interest-bearing financial investments	6	865	473	697
Other non-current financial investments	6	802	899	828
Deferred tax assets	5	3 777	1 209	3 834
Other non-current financial assets	6	244	288	252
Defined benefit pension assets	4	6 575	7 813	6 754
Other non-current receivables		236	217	239
<b>Non-current assets</b>		<b>22 287</b>	<b>21 278</b>	<b>22 677</b>
Inventories		3 317	2 910	3 265
Trade receivables	6	5 354	4 663	5 549
Contract assets		1 103	1 146	1 203
Other current receivables		855	1 115	934
Current income tax assets		351	282	153
Other current financial and firm commitment assets	6	513	784	615
Current interest-bearing financial investments	6	1 860	3 253	3 080
Cash and cash equivalents	6	5 106	5 457	5 467
<b>Current assets</b>		<b>18 459</b>	<b>19 609</b>	<b>20 266</b>
<b>Total assets</b>		<b>40 747</b>	<b>40 887</b>	<b>42 943</b>
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>				
Share capital		246	246	246
Share premium		590	450	503
Treasury shares		(515)	(492)	(352)
Translation differences		(46)	570	169
Fair value and other reserves		3 745	4 364	3 905
Reserve for invested unrestricted equity		15 489	15 759	15 487
Retained earnings/(accumulated deficit)		1 671	(1 982)	1 375
<b>Total capital and reserves attributable to equity holders of the parent</b>		<b>21 180</b>	<b>18 915</b>	<b>21 333</b>
Non-controlling interests		96	111	93
<b>Total equity</b>		<b>21 276</b>	<b>19 026</b>	<b>21 426</b>
Long-term interest-bearing liabilities	6, 7	3 584	4 424	4 249
Long-term lease liabilities		839	919	858
Deferred tax liabilities		343	322	332
Defined benefit pension and post-employment liabilities	4	2 395	2 819	2 459
Contract liabilities		127	239	120
Deferred revenue and other non-current liabilities		94	253	103
Provisions	8	581	599	622
<b>Non-current liabilities</b>		<b>7 964</b>	<b>9 574</b>	<b>8 743</b>
Short-term interest-bearing liabilities	6, 7	587	213	228
Short-term lease liabilities		193	182	184
Other financial and firm commitment liabilities	6	899	1 150	1 038
Current income tax liabilities		194	180	185
Trade payables	6	4 257	3 924	4 730
Contract liabilities		1 916	2 174	1 977
Deferred revenue and other current liabilities	6	2 770	3 576	3 619
Provisions	8	690	887	813
<b>Current liabilities</b>		<b>11 507</b>	<b>12 287</b>	<b>12 774</b>
<b>Total shareholders' equity and liabilities</b>		<b>40 747</b>	<b>40 887</b>	<b>42 943</b>
Shareholders' equity per share, EUR		3.82	3.37	3.82
Number of shares (1 000 shares, excluding treasury shares)		5 547 782	5 614 739	5 587 016

The above condensed consolidated statement of financial position should be read in conjunction with accompanying notes.



## Consolidated statement of cash flows (condensed)

EUR million	Q2'23	Q2'22	Q1-Q2'23	Q1-Q2'22
<b>Cash flow from operating activities</b>				
Profit for the period	289	460	578	679
Adjustments	532	419	988	828
Depreciation and amortization	272	282	538	556
Restructuring charges	56	43	75	59
Financial income and expenses	55	15	73	77
Income tax expense	116	82	228	158
Loss/(gain) from other non-current financial investments	6	(47)	35	(96)
Other	27	44	39	74
Cash flows from operations before changes in net working capital	821	879	1 566	1 507
Change in net working capital	(953)	(797)	(1 459)	(717)
Decrease in receivables	48	383	81	732
Increase in inventories	(51)	(240)	(124)	(452)
Decrease in non-interest-bearing liabilities	(950)	(940)	(1 416)	(997)
Cash flows from operations	(132)	82	107	790
Interest received	51	23	81	27
Interest paid	(55)	(54)	(106)	(110)
Income taxes paid, net	(197)	(94)	(332)	(191)
Net cash flows (used in)/from operating activities	(333)	(43)	(250)	516
<b>Cash flow from investing activities</b>				
Purchase of property, plant and equipment and intangible assets	(127)	(101)	(359)	(290)
Proceeds from sale of property, plant and equipment and intangible assets	84	32	98	33
Proceeds from disposal of businesses, net of disposed cash	(5)	—	17	—
Purchase of interest-bearing financial investments	(320)	(812)	(1 335)	(1 512)
Proceeds from maturities and sale of interest-bearing financial investments	1 384	269	2 397	367
Purchase of other non-current financial investments	(25)	(18)	(41)	(76)
Proceeds from sale of other non-current financial investments	21	14	25	27
Foreign exchange hedging of cash and cash equivalents	51	(21)	29	(46)
Other	3	8	8	7
Net cash flows from/(used in) investing activities	1 066	(629)	839	(1 490)
<b>Cash flow from financing activities</b>				
Acquisition of treasury shares	(82)	(93)	(163)	(140)
Proceeds from long-term borrowings	1	3	496	8
Repayment of long-term borrowings	(85)	(1)	(798)	(1)
(Repayment of)/Proceeds from short-term borrowings	(19)	5	(5)	13
Payment of principal portion of lease liabilities	(60)	(66)	(127)	(123)
Dividends paid	(167)	(115)	(279)	(115)
Net cash flows used in financing activities	(412)	(267)	(876)	(358)
Translation differences	(42)	55	(74)	98
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>279</b>	<b>(884)</b>	<b>(361)</b>	<b>(1 234)</b>
Cash and cash equivalents at beginning of period	4 827	6 341	5 467	6 691
Cash and cash equivalents at end of period	5 106	5 457	5 106	5 457

Consolidated statement of cash flows combines cash flows from both the continuing and the discontinued operations.

The above condensed consolidated statement of cash flows should be read in conjunction with accompanying notes.

## Consolidated statement of changes in shareholders' equity (condensed)

EUR million	Share capital	Share premium	Treasury shares	Translation differences	Fair value and other reserves	Reserve for invested unrestricted equity	Retained earnings/ (accumulated deficit)	Attributable to equity holders of the parent	Non-controlling interests	Total equity
<b>1 January 2022</b>	<b>246</b>	<b>454</b>	<b>(352)</b>	<b>(396)</b>	<b>4 219</b>	<b>15 726</b>	<b>(2 537)</b>	<b>17 360</b>	<b>102</b>	<b>17 462</b>
Profit for the period	—	—	—	—	—	—	669	669	10	679
Other comprehensive income	—	—	—	966	145	—	(1)	1 110	2	1 112
<b>Total comprehensive income</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>966</b>	<b>145</b>	<b>—</b>	<b>668</b>	<b>1 779</b>	<b>12</b>	<b>1 791</b>
Share-based payments	—	66	—	—	—	—	—	66	—	66
Settlement of share-based payments	—	(70)	—	—	—	45	—	(25)	—	(25)
Acquisition of treasury shares <sup>1</sup>	—	—	(140)	—	—	(12)	—	(152)	—	(152)
Dividend	—	—	—	—	—	—	(113)	(113)	(3)	(116)
<b>Total transactions with owners</b>	<b>—</b>	<b>(4)</b>	<b>(140)</b>	<b>—</b>	<b>—</b>	<b>33</b>	<b>(113)</b>	<b>(224)</b>	<b>(3)</b>	<b>(227)</b>
<b>30 June 2022</b>	<b>246</b>	<b>450</b>	<b>(492)</b>	<b>570</b>	<b>4 364</b>	<b>15 759</b>	<b>(1 982)</b>	<b>18 915</b>	<b>111</b>	<b>19 026</b>

<b>1 January 2023</b>	<b>246</b>	<b>503</b>	<b>(352)</b>	<b>169</b>	<b>3 905</b>	<b>15 487</b>	<b>1 375</b>	<b>21 333</b>	<b>93</b>	<b>21 426</b>
Profit for the period	—	—	—	—	—	—	569	569	9	578
Other comprehensive income	—	—	—	(215)	(160)	—	6	(369)	(4)	(373)
<b>Total comprehensive income</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>(215)</b>	<b>(160)</b>	<b>—</b>	<b>575</b>	<b>200</b>	<b>5</b>	<b>205</b>
Share-based payments	—	93	—	—	—	—	—	93	—	93
Settlement of share-based payments	—	(6)	—	—	—	4	—	(2)	—	(2)
Acquisition of treasury shares <sup>1</sup>	—	—	(163)	—	—	(2)	—	(165)	—	(165)
Disposal of subsidiaries	—	—	—	—	—	—	—	—	(2)	(2)
Dividend	—	—	—	—	—	—	(279)	(279)	—	(279)
<b>Total transactions with owners</b>	<b>—</b>	<b>87</b>	<b>(163)</b>	<b>—</b>	<b>—</b>	<b>2</b>	<b>(279)</b>	<b>(353)</b>	<b>(2)</b>	<b>(355)</b>
<b>30 June 2023</b>	<b>246</b>	<b>590</b>	<b>(515)</b>	<b>(46)</b>	<b>3 745</b>	<b>15 489</b>	<b>1 671</b>	<b>21 180</b>	<b>96</b>	<b>21 276</b>

<sup>1</sup>Treasury shares are acquired as part of the share buyback program announced on 3 February 2022. Shares are repurchased using funds in the reserve for invested unrestricted equity. The shares repurchased in the first phase of the program between 14 February and 11 November 2022 were canceled on 8 December 2022. The second phase of the program started on 2 January 2023.

The above condensed consolidated statement of changes in shareholders' equity should be read in conjunction with accompanying notes.

## Notes to Financial statements

### 1. BASIS OF PREPARATION

This unaudited and condensed consolidated financial statement information of Nokia has been prepared in accordance with IAS 34, Interim Financial Reporting, and it should be read in conjunction with the annual consolidated financial statements for 2022 prepared in accordance with IFRS as published by the IASB and adopted by the EU. The same accounting policies, methods of computation and applications of judgment are followed in this financial statement information as was followed in the annual consolidated financial statements for 2022. Percentages and figures presented herein may include rounding differences and therefore may not add up precisely to the totals presented and may vary from previously published financial information. This financial report was authorized for issue by the Board of Directors on 20 July 2023.

Net sales and operating profit of the Nokia Group, particularly in Network Infrastructure, Mobile Networks and Cloud and Network Services segments, are subject to seasonal fluctuations being generally highest in the fourth quarter and lowest in the first quarter of the year. This is mainly due to the seasonality in the spending cycles of communications service providers.

In 2017, Nokia and China Huaxin Post & Telecommunication Economy Development Center (China Huaxin) commenced operations of the joint venture Nokia Shanghai Bell (NSB). The contractual arrangement provides China Huaxin with the right to fully transfer its ownership interest in NSB to Nokia and Nokia with the right to purchase China Huaxin's ownership interest in NSB in exchange for a future cash settlement. To reflect this, Nokia derecognized the non-controlling interest balance related to NSB and recognized a financial liability based on the estimated future cash settlement to acquire China Huaxin's ownership interest. Any changes in the estimated future cash settlement are recorded in financial income and expense. In 2023, the contractual arrangement was extended until 30 June 2024. If it expires unexercised, Nokia will derecognize the financial liability and record non-controlling interest equal to its share of NSB's net assets with any difference recorded within shareholders' equity.

In the second quarter of 2023, Nokia signed an agreement to sell its 51% ownership interest in TD Tech Holding Limited ("TD Tech"), a Hong Kong based joint venture, to New East New Materials for an estimated price of EUR 285 million. At 30 June 2023, the carrying value of TD Tech in the consolidated statement of financial position was EUR 58 million. The estimated gain on sale of EUR 227 million will be recorded in other operating income. The closing is subject to conditions including a pre-emption right of the joint venture partner and the sale will only take place if and when these conditions are met which could yet take some time.

### Comparable and constant currency measures

Nokia presents financial information on a reported, comparable and constant currency basis. Comparable measures presented in this document exclude intangible asset amortization and other purchase price fair value adjustments, goodwill impairments, restructuring related charges and certain other items affecting comparability. In order to allow full visibility on determining comparable results, information on items affecting comparability is presented separately for each of the components of profit or loss.

Constant currency reporting provides additional information on change in financial measures on a constant currency basis in order to better reflect the underlying business performance. Therefore, change in financial measures at constant currency excludes the impact of changes in exchange rates in comparison to euro, our reporting currency.

As comparable or constant currency financial measures are not defined in IFRS they may not be directly comparable with similarly titled measures used by other companies, including those in the same industry. The primary rationale for presenting these measures is that the management uses these measures in assessing the financial performance of Nokia and believes that these measures provide meaningful supplemental information on the underlying business performance of Nokia. These financial measures should not be considered in isolation from, or as a substitute for, financial information presented in compliance with IFRS. For further details on performance measures used by Nokia and reconciliations to the closest IFRS-defined measures, refer to the Performance measures section accompanying this consolidated financial statement information.

### Foreign exchange rates

Nokia's net sales are derived from various countries and invoiced in various currencies. Therefore, our business and results from operations are exposed to changes in foreign exchange rates between the euro, our reporting currency, and other currencies, such as the US dollar, the Indian rupee and the Chinese yuan. To mitigate the impact of changes in exchange rates on our results, we hedge operative forecasted net foreign exchange exposures, typically within a 12-month horizon, and apply hedge accounting in the majority of cases.

The below table shows the exposure to different currencies for net sales and total costs.

	Q2'23		Q2'22		Q1'23	
	Net sales	Total costs	Net sales	Total costs	Net sales	Total costs
EUR	~25%	~25%	~20%	~25%	~25%	~25%
USD	~50%	~50%	~55%	~50%	~50%	~50%
INR	~5%	~5%	~0%	~5%	~5%	~5%
CNY	~5%	~5%	~5%	~5%	~5%	~5%
Other	~15%	~15%	~20%	~15%	~15%	~15%
Total	100%	100%	100%	100%	100%	100%

End of Q2'23 balance sheet rate 1 EUR = 1.09 USD, end of Q2'22 balance sheet rate 1 EUR = 1.04 USD and end of Q1'23 balance sheet rate 1 EUR = 1.09 USD

### New and amended standards and interpretations

New standards and amendments to existing standards that became effective on 1 January 2023, did not have a material impact on Nokia's consolidated financial statements, however, the amendments to IAS 1, Presentation of Financial Statements, and IFRS Practice Statement 2 related to disclosure of accounting policies are expected to affect the accounting policy disclosures in Nokia's annual consolidated financial statements for 2023. These amendments aim to help entities provide accounting policy disclosures that are more useful by replacing the requirement to disclose 'significant' accounting policies with a requirement to disclose 'material' accounting policies and adding guidance to help entities determine when accounting policy information is material and, therefore, needs to be disclosed.

New standards and amendments to existing standards issued by the IASB that are not yet effective are not expected to have a material impact on Nokia's consolidated financial statements when adopted.

## 2. SEGMENT INFORMATION

Nokia has four operating and reportable segments for the financial reporting purposes: (1) Network Infrastructure, (2) Mobile Networks, (3) Cloud and Network Services and (4) Nokia Technologies. Nokia also presents segment-level information for Group Common and Other. In addition, Nokia provides net sales disclosure for the following businesses within the Network Infrastructure segment: (i) IP Networks, (ii) Optical Networks, (iii) Fixed Networks and (iv) Submarine Networks. For detailed segment descriptions, please refer to Note 5, Segment Information, in the annual consolidated financial statements for 2022.

Accounting policies of the segments are the same as those described in Note 2, Significant accounting policies, in the annual consolidated financial statements for 2022, except that items affecting comparability are not allocated to the segments. For more information on comparable measures and items affecting comparability, refer to Note 1, Basis of preparation, and to the Performance Measures section accompanying this consolidated financial statement information. Inter-segment revenues and transfers are accounted for as if the revenues were to third parties, that is, at current market prices.

Q2'23							
EUR million	Network Infrastructure	Mobile Networks	Cloud and Network Services	Nokia Technologies	Group Common and Other	Eliminations and unallocated items	Nokia Group
<b>Net sales</b>	<b>1 978</b>	<b>2 623</b>	<b>742</b>	<b>334</b>	<b>35</b>	<b>(2)</b>	<b>5 710</b>
<i>of which to other segments</i>	—	1	—	—	2	(2)	—
<b>Gross profit/(loss)</b>	<b>734</b>	<b>877</b>	<b>271</b>	<b>334</b>	<b>(1)</b>	<b>(36)</b>	<b>2 180</b>
<i>Gross margin %</i>	37.1%	33.4%	36.5%	100.0%	(2.9)%		38.2%
Research and development expenses	(296)	(501)	(138)	(56)	(34)	(19)	(1 045)
Selling, general and administrative expenses	(204)	(200)	(123)	(37)	(53)	(85)	(703)
Other operating income and expenses	26	30	6	(6)	(2)	(11)	43
<b>Operating profit/(loss)</b>	<b>260</b>	<b>206</b>	<b>16</b>	<b>236</b>	<b>(91)</b>	<b>(152)</b>	<b>474</b>
<i>Operating margin %</i>	13.1%	7.9%	2.2 %	70.7%	(260.0)%		8.3%
Share of results of associates and joint ventures	—	(12)	2	(2)	—	—	(13)
Financial income and expenses							(54)
<b>Profit before tax</b>							<b>407</b>
<i>Depreciation and amortization</i>	(58)	(88)	(21)	(10)	(7)	(88)	(272)

<sup>1</sup>Includes IP Networks net sales of EUR 618 million, Optical Networks net sales of EUR 492 million, Fixed Networks net sales of EUR 596 million and Submarine Networks net sales of EUR 272 million.

Q2'22							
EUR million	Network Infrastructure	Mobile Networks	Cloud and Network Services	Nokia Technologies	Group Common and Other	Eliminations and unallocated items	Nokia Group
<b>Net sales</b>	<b>2 153</b>	<b>2 593</b>	<b>753</b>	<b>305</b>	<b>77</b>	<b>(8)</b>	<b>5 873</b>
<i>of which to other segments</i>	—	—	—	3	4	(8)	—
<b>Gross profit</b>	<b>763</b>	<b>1 043</b>	<b>280</b>	<b>304</b>	<b>(4)</b>	<b>(25)</b>	<b>2 361</b>
<i>Gross margin %</i>	35.4%	40.2%	37.2%	99.7%	(5.2)%		40.2%
Research and development expenses	(305)	(547)	(143)	(52)	(24)	(21)	(1 091)
Selling, general and administrative expenses	(199)	(204)	(130)	(33)	(57)	(105)	(728)
Other operating income and expenses	(12)	(2)	(13)	(2)	49	1	22
<b>Operating profit/(loss)</b>	<b>247</b>	<b>291</b>	<b>(5)</b>	<b>217</b>	<b>(36)</b>	<b>(150)</b>	<b>564</b>
<i>Operating margin %</i>	11.5%	11.2%	(0.7)%	71.1%	(46.8)%		9.6%
Share of results of associates and joint ventures	—	(6)	1	(1)	—	—	(6)
Financial income and expenses							(18)
<b>Profit before tax</b>							<b>541</b>
<i>Depreciation and amortization</i>	(57)	(87)	(23)	(9)	(6)	(100)	(282)

<sup>1</sup>Includes IP Networks net sales of EUR 716 million, Optical Networks net sales of EUR 437 million, Fixed Networks net sales of EUR 713 million and Submarine Networks net sales of EUR 287 million.

## Q1-Q2'23

EUR million	Network Infrastructure <sup>1</sup>	Mobile Networks	Cloud and Network Services	Nokia Technologies	Group Common and Other	Eliminations and unallocated items	Nokia Group
<b>Net sales</b>	<b>4 227</b>	<b>5 190</b>	<b>1 501</b>	<b>576</b>	<b>84</b>	<b>(9)</b>	<b>11 569</b>
<i>of which to other segments</i>	1	3	—	—	4	(9)	—
<b>Gross profit/(loss)</b>	<b>1 590</b>	<b>1 744</b>	<b>521</b>	<b>576</b>	<b>(8)</b>	<b>(48)</b>	<b>4 375</b>
<i>Gross margin %</i>	37.6%	33.6%	34.7%	100.0%	(9.5)%		37.8%
Research and development expenses	(614)	(1 036)	(290)	(113)	(66)	(35)	(2 154)
Selling, general and administrative expenses	(410)	(410)	(253)	(70)	(116)	(173)	(1 432)
Other operating income and expenses	38	44	19	(9)	(31)	50	111
<b>Operating profit/(loss)</b>	<b>604</b>	<b>342</b>	<b>(4)</b>	<b>385</b>	<b>(222)</b>	<b>(206)</b>	<b>900</b>
<i>Operating margin %</i>	14.3%	6.6%	(0.3)%	66.8%	(264.3)%		7.8%
Share of results of associates and joint ventures	—	(30)	3	9	—	—	(19)
Financial income and expenses							(74)
<b>Profit before tax</b>							<b>808</b>
<i>Depreciation and amortization</i>	(113)	(176)	(44)	(19)	(9)	(177)	(538)

<sup>1</sup>Includes IP Networks net sales of EUR 1 400 million, Optical Networks net sales of EUR 1 025 million, Fixed Networks net sales of EUR 1 246 million and Submarine Networks net sales of EUR 556 million.

## Q1-Q2'22

EUR million	Network Infrastructure <sup>1</sup>	Mobile Networks	Cloud and Network Services	Nokia Technologies	Group Common and Other	Eliminations and unallocated items	Nokia Group
<b>Net sales</b>	<b>4 127</b>	<b>4 860</b>	<b>1 490</b>	<b>611</b>	<b>152</b>	<b>(20)</b>	<b>11 220</b>
<i>of which to other segments</i>	1	3	1	6	9	(20)	—
<b>Gross profit/(loss)</b>	<b>1 447</b>	<b>1 945</b>	<b>564</b>	<b>609</b>	<b>(2)</b>	<b>(32)</b>	<b>4 530</b>
<i>Gross margin %</i>	35.1%	40.0%	37.9%	99.7%	(1.3)%		40.4%
Research and development expenses	(607)	(1 077)	(281)	(106)	(51)	(41)	(2 163)
Selling, general and administrative expenses	(381)	(403)	(254)	(63)	(103)	(199)	(1 403)
Other operating income and expenses	(17)	(4)	(14)	(3)	97	(106)	(46)
<b>Operating profit/(loss)</b>	<b>442</b>	<b>462</b>	<b>14</b>	<b>437</b>	<b>(59)</b>	<b>(378)</b>	<b>918</b>
<i>Operating margin %</i>	10.7%	9.5%	0.9 %	71.5 %	(38.8)%		8.2%
Share of results of associates and joint ventures	—	(33)	3	(2)	—	—	(32)
Financial income and expenses							(90)
<b>Profit before tax</b>							<b>797</b>
<i>Depreciation and amortization</i>	(110)	(172)	(46)	(17)	(12)	(199)	(556)

<sup>1</sup>Includes IP Networks net sales of EUR 1 394 million, Optical Networks net sales of EUR 801 million, Fixed Networks net sales of EUR 1 383 million and Submarine Networks net sales of EUR 549 million.

## Material reconciling items between operating profit for the Group and total segment operating profit

EUR million	Q2'23	Q2'22	Q1-Q2'23	Q1-Q2'22
<b>Operating profit for the Group</b>	<b>474</b>	<b>564</b>	<b>900</b>	<b>918</b>
Amortization of acquired intangible assets	87	100	176	200
Restructuring and associated charges	53	50	81	80
Change in provisions related to past acquisitions	20	—	20	—
Costs associated with country exit	(13)	—	(48)	104
Divestment of businesses	4	—	(22)	—
Other, net	1	(1)	(1)	(6)
<b>Total segment operating profit</b>	<b>626</b>	<b>714</b>	<b>1 106</b>	<b>1 296</b>

## 3. NET SALES

Management has determined that Nokia's geographic areas are considered as the primary determinants to depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors. Nokia's primary customer base consists of companies that operate on a country-specific or a regional basis. Although Nokia's technology cycle is similar around the world, different countries and regions are inherently in a different stage of that cycle, often influenced by macroeconomic conditions specific to those countries and regions. In addition to net sales to external customers by region, the chief operating decision maker also reviews net sales by customer type disclosed below.

Each reportable segment, as described in Note 2, Segment information, consists of customers that operate in all geographic areas. No reportable segment has a specific revenue concentration in any geographic area other than Nokia Technologies, which is included within Europe.

### Net sales by region

EUR million	Q2'23	Q2'22	YoY change	Q1-Q2'23	Q1-Q2'22	YoY change
Asia Pacific	527	575	(8)%	1 105	1 209	(9)%
Europe	1 523	1 378	11%	2 996	2 777	8%
Greater China	344	418	(18)%	680	810	(16)%
India	1 043	241	333%	1 896	440	331%
Latin America	230	275	(16)%	462	501	(8)%
Middle East & Africa	478	484	(1)%	915	892	3%
North America	1 293	2 216	(42)%	2 959	4 042	(27)%
Submarine Networks <sup>1</sup>	272	287	(5)%	556	549	1%
<b>Total</b>	<b>5 710</b>	<b>5 873</b>	<b>(3)%</b>	<b>11 569</b>	<b>11 220</b>	<b>3%</b>

<sup>1</sup>Nokia provides net sales for the Submarine Networks business separately from the rest of the Group to improve the usefulness of disclosed information by removing volatility caused by the specific nature of the Submarine Networks business.

### Net sales by customer type

EUR million	Q2'23	Q2'22	YoY change	Q1-Q2'23	Q1-Q2'22	YoY change
Communications service providers (CSP)	4 561	4 803	(5)%	9 286	9 176	1%
Enterprise	510	409	25%	1 076	752	43%
Licensees	334	305	10 %	576	611	(6)%
Other <sup>1</sup>	304	356	(15)%	631	681	(7)%
<b>Total</b>	<b>5 710</b>	<b>5 873</b>	<b>(3)%</b>	<b>11 569</b>	<b>11 220</b>	<b>3%</b>

<sup>1</sup>Includes net sales of Submarine Networks which operates in a different market, and Radio Frequency Systems (RFS), which is being managed as a separate entity, and certain other items, such as eliminations of inter-segment revenues. Submarine Networks and RFS net sales also include revenue from communications service providers and enterprise customers.

## 4. PENSIONS AND OTHER POST-EMPLOYMENT BENEFITS

Nokia operates several post-employment plans in various countries including both defined contribution and defined benefit plans. Defined benefit plans include pension plans and other post-employment benefit plans, providing retirement healthcare benefits and life insurance coverage. Nokia remeasured 95% of its defined benefit obligations and 98% of the plan assets at 30 June 2023. Nokia's pension and other post-employment plans in the United States have been remeasured using updated valuations from an external actuary, and the main pension plans outside of the United States have been remeasured based on updated asset valuations and changes in the discount rates during the reporting period. The impact of not remeasuring other pension and post-employment obligations is considered not material. At 30 June 2023, the weighted average discount rates used in remeasurement of the most significant plans were as follows (comparatives at 31 December 2022): US Pension 4.84% (4.86%), US OPEB 4.83% (4.87%), Germany 3.62% (3.70%) and UK 5.14% (4.76%).

The funded status of Nokia's defined benefit plans (before the effect of the asset ceiling) decreased from EUR 4 441 million, or 124.6%, at 31 March 2023 to EUR 4 281 million, or 124.2%, at 30 June 2023. During the quarter the global defined benefit plan asset portfolio was invested approximately 71% in fixed income, 6% in equities and 23% in other asset classes, mainly private equity and real estate.

### Changes in pension and post-employment net asset/(liability)

EUR million	30 June 2023			30 June 2022			31 December 2022		
	Pensions <sup>1</sup>	US OPEB	Total	Pensions <sup>1</sup>	US OPEB	Total	Pensions <sup>1</sup>	US OPEB	Total
<b>Net asset/(liability) recognized 1 January</b>	<b>5 273</b>	<b>(978)</b>	<b>4 295</b>	<b>5 588</b>	<b>(1 256)</b>	<b>4 332</b>	<b>5 588</b>	<b>(1 256)</b>	<b>4 332</b>
Recognized in income statement	32	(23)	9	(41)	(15)	(56)	(69)	(32)	(101)
Recognized in other comprehensive income	(195)	49	(146)	19	202	221	(694)	270	(424)
Contributions and benefits paid	103	6	109	102	(4)	98	177	9	186
Exchange differences and other movements <sup>2</sup>	(99)	12	(87)	500	(101)	399	271	31	302
<b>Net asset/(liability) recognized at the end of the period</b>	<b>5 114</b>	<b>(934)</b>	<b>4 180</b>	<b>6 168</b>	<b>(1 174)</b>	<b>4 994</b>	<b>5 273</b>	<b>(978)</b>	<b>4 295</b>

<sup>1</sup>Includes pensions, retirement indemnities and other post-employment plans.

<sup>2</sup>Includes Section 420 transfers, medicare subsidies, and other transfers.

### Funded status

EUR million	30 June 2023	31 March 2023	31 December 2022	30 September 2022	30 June 2022
Defined benefit obligation	(17 712)	(18 054)	(18 312)	(19 522)	(20 029)
Fair value of plan assets	21 993	22 495	22 691	24 681	25 127
<b>Funded status</b>	<b>4 281</b>	<b>4 441</b>	<b>4 379</b>	<b>5 159</b>	<b>5 098</b>
Effect of asset ceiling	(101)	(90)	(84)	(121)	(104)
<b>Net asset recognized at the end of the period</b>	<b>4 180</b>	<b>4 351</b>	<b>4 295</b>	<b>5 038</b>	<b>4 994</b>

## 5. DEFERRED TAXES

Deferred tax assets are recognized to the extent it is probable that future taxable profit will be available against which the unused tax losses, unused tax credits and deductible temporary differences can be utilized in the relevant jurisdictions. At 30 June 2023, Nokia has recognized deferred tax assets of EUR 3.8 billion (EUR 3.8 billion at 31 December 2022).

In addition, at 30 June 2023, Nokia has unrecognized deferred tax assets of approximately EUR 5 billion (EUR 5 billion at 31 December 2022), the majority of which relate to France (approximately EUR 4 billion). These deferred tax assets have not been recognized due to uncertainty regarding their utilization. A significant portion of the French unrecognized deferred tax assets are indefinite in nature and available against future French tax liabilities, subject to a limitation of 50% of annual taxable profits.

Nokia continually evaluates the probability of utilizing its deferred tax assets and considers both positive and negative evidence in its assessment.

## 6. FAIR VALUE OF FINANCIAL INSTRUMENTS

Financial assets and liabilities recorded at fair value are categorized based on the amount of unobservable inputs used to measure their fair value. Three hierarchical levels are based on an increasing amount of judgment associated with the inputs used to derive fair valuation for these assets and liabilities, Level 1 being market values for exchange traded products, Level 2 being primarily based on publicly available market information and Level 3 requiring most management judgment. At the end of each reporting period, Nokia categorizes its financial assets and liabilities to the appropriate level of fair value hierarchy. Items carried at fair value in the following table are measured at fair value on a recurring basis. For more information about the valuation methods and principles, refer to note 2, Significant accounting policies, and note 21, Fair value of financial instruments, in the annual consolidated financial statements for 2022.

### 30 June 2023

EUR million	Carrying amounts						Fair value	
	Amortized cost	Fair value through profit or loss			Fair value through other comprehensive income <sup>1</sup>		Total	Total
		Level 1	Level 2	Level 3	Level 2	Total		
Other non-current financial investments	—	6	—	797	—	803	803	
Other non-current financial assets	180	—	97	—	24	301	301	
Non-current interest-bearing financial investments	865	—	—	—	—	865	834	
Other current financial assets	262	—	—	—	43	305	305	
Derivative assets	—	—	197	—	—	197	197	
Trade receivables	—	—	—	—	5 354	5 354	5 354	
Current interest-bearing financial investments	1 255	—	605	—	—	1 860	1 860	
Cash and cash equivalents	3 936	—	1 170	—	—	5 106	5 106	
<b>Total financial assets</b>	<b>6 498</b>	<b>6</b>	<b>2 069</b>	<b>797</b>	<b>5 421</b>	<b>14 791</b>	<b>14 760</b>	
Long-term interest-bearing liabilities	3 584	—	—	—	—	3 584	3 568	
Other long-term financial liabilities	—	—	—	46	—	46	46	
Short-term interest-bearing liabilities	587	—	—	—	—	587	592	
Other short-term financial liabilities	55	—	—	471	—	526	526	
Derivative liabilities	—	—	397	—	—	397	397	
Discounts without performance obligations	497	—	—	—	—	497	497	
Trade payables	4 257	—	—	—	—	4 257	4 257	
<b>Total financial liabilities</b>	<b>8 980</b>	<b>—</b>	<b>397</b>	<b>517</b>	<b>—</b>	<b>9 894</b>	<b>9 883</b>	

### 31 December 2022

EUR million	Carrying amounts						Fair value	
	Amortized cost	Fair value through profit or loss			Fair value through other comprehensive income <sup>1</sup>		Total	Total
		Level 1	Level 2	Level 3	Level 2	Total		
Other non-current financial investments	—	5	—	823	—	828	828	
Other non-current financial assets	183	—	91	—	27	301	301	
Non-current interest-bearing financial investments	697	—	—	—	—	697	659	
Other current financial assets	296	—	—	—	36	332	332	
Derivative assets	—	—	239	—	—	239	239	
Trade receivables	—	—	—	—	5 549	5 549	5 549	
Current interest-bearing financial investments	1 447	—	1 633	—	—	3 080	3 080	
Cash and cash equivalents	4 176	—	1 291	—	—	5 467	5 467	
<b>Total financial assets</b>	<b>6 799</b>	<b>5</b>	<b>3 254</b>	<b>823</b>	<b>5 612</b>	<b>16 493</b>	<b>16 455</b>	
Long-term interest-bearing liabilities	4 249	—	—	—	—	4 249	4 230	
Other long-term financial liabilities	—	—	—	48	—	48	48	
Short-term interest-bearing liabilities	228	—	—	—	—	228	228	
Other short-term financial liabilities	75	—	—	502	—	577	577	
Derivative liabilities	—	—	496	—	—	496	496	
Discounts without performance obligations	539	—	—	—	—	539	539	
Trade payables	4 730	—	—	—	—	4 730	4 730	
<b>Total financial liabilities</b>	<b>9 821</b>	<b>—</b>	<b>496</b>	<b>550</b>	<b>—</b>	<b>10 867</b>	<b>10 848</b>	

<sup>1</sup>No financial instruments measured at fair value through other comprehensive income are categorized in fair value hierarchy level 1 or level 3.

Lease liabilities are not included in the fair value of financial instruments.

Level 3 Financial assets include a large number of investments in unlisted equities and unlisted venture funds, including investments managed by NGP Capital specializing in growth-stage investing. The fair value of level 3 investments is determined using one or more valuation techniques with unobservable inputs, where the use of the market approach generally consists of using comparable market transactions, while the use of the income approach generally consists of calculating the net present value of expected future cash flows.

Level 3 Financial liabilities consist primarily of a conditional obligation to China Huaxin related to Nokia Shanghai Bell.



Reconciliation of the opening and closing balances on level 3 financial assets and liabilities:

EUR million	Level 3 Financial Assets	Level 3 Financial Liabilities
<b>Balance at 31 December 2022</b>	<b>823</b>	<b>(550)</b>
Net (losses)/gains in income statement	(46)	32
Additions	26	—
Deductions	(6)	—
Other movements	—	1
<b>Balance at 30 June 2023</b>	<b>797</b>	<b>(517)</b>

The gains and losses from venture fund and similar investments categorized in level 3 are included in other operating income and expenses. The gains and losses from other level 3 financial assets and liabilities are recorded in financial income and expenses. A net loss of EUR 15 million (net gain of EUR 23 million in 2022) related to level 3 financial instruments held at 30 June 2023 was included in the profit and loss during 2023.

## 7. INTEREST-BEARING LIABILITIES

Issuer/borrower	Instrument	Currency	Nominal (million)	Final maturity	Carrying amount (EUR million)		
					30 June 2023	30 June 2022	31 December 2022
Nokia Corporation	2.00% Senior Notes <sup>1</sup>	EUR	378	March 2024	368	748	736
Nokia Corporation	EIB R&D Loan	EUR	500	February 2025	500	500	500
Nokia Corporation	NIB R&D Loan <sup>2</sup>	EUR	167	May 2025	167	250	250
Nokia Corporation	2.375% Senior Notes <sup>1</sup>	EUR	292	May 2025	283	491	478
Nokia Corporation	2.00% Senior Notes <sup>1</sup>	EUR	630	March 2026	595	747	716
Nokia Corporation	4.375% Senior Notes	USD	500	June 2027	427	468	436
Nokia of America Corporation	6.50% Senior Notes	USD	74	January 2028	68	71	70
Nokia Corporation	3.125% Senior Notes	EUR	500	May 2028	460	489	457
Nokia of America Corporation	6.45% Senior Notes	USD	206	March 2029	191	200	194
Nokia Corporation	4.375% Sustainability-linked Senior Notes <sup>3</sup>	EUR	500	August 2031	489	—	—
Nokia Corporation	6.625% Senior Notes	USD	500	May 2039	471	526	478
Nokia Corporation and various subsidiaries	Other liabilities				152	147	162
<b>Total</b>					<b>4 171</b>	<b>4 637</b>	<b>4 477</b>

<sup>1</sup>In February 2023 Nokia purchased in a tender offer EUR 372 million (49.66% of the nominal amount) of the notes due 15 March 2024, EUR 208 million (41.57% of the nominal amount) of the notes due 15 May 2025 and EUR 120 million (15.96% of the nominal amount) of the notes due 11 March 2026.

<sup>2</sup>The remaining loan from the Nordic Investment Bank (NIB) is repayable in two equal annual installments in 2024 and 2025.

<sup>3</sup>In February 2023 Nokia issued EUR 500 million 4.375% sustainability-linked Notes due August 2031 under its 5 billion Euro Medium Term Note Programme.

### Significant credit facilities and funding programs

Financing arrangement	Committed/uncommitted	Currency	Nominal (million)	Utilized (million)		
				30 June 2023	30 June 2022	31 December 2022
Revolving Credit Facility <sup>1</sup>	Committed	EUR	1 500	—	—	—
Finnish Commercial Paper Programme	Uncommitted	EUR	750	—	—	—
Euro-Commercial Paper Programme	Uncommitted	EUR	1 500	—	—	—
Euro Medium Term Note Programme <sup>2</sup>	Uncommitted	EUR	5 000	2 300	2 500	2 500

<sup>1</sup>The sustainability-linked facility has its maturity in June 2026, except for EUR 88 million having its maturity in June 2024.

<sup>2</sup>All euro-denominated bonds have been issued under the Euro Medium Term Note Programme.

All borrowings and credit facilities presented in the tables above are senior unsecured and have no financial covenants.

## 8. PROVISIONS

EUR million	Restructuring	Warranty	Litigation and Environmental	Project losses	Other <sup>1</sup>	Total
<b>At 1 January 2023</b>	<b>193</b>	<b>221</b>	<b>253</b>	<b>207</b>	<b>561</b>	<b>1 435</b>
Charged to income statement						
<i>Additions</i>	75	92	37	—	83	287
<i>Reversals</i>	—	(24)	(10)	—	(78)	(112)
Total charged to income statement	75	68	27	—	5	175
Utilized during period <sup>2</sup>	(113)	(66)	(14)	(89)	(48)	(330)
Translation differences and other	—	—	(5)	—	(4)	(9)
<b>At 30 June 2023</b>	<b>155</b>	<b>223</b>	<b>261</b>	<b>118</b>	<b>514</b>	<b>1 271</b>
<b>Non-current</b>	<b>49</b>	<b>20</b>	<b>160</b>	<b>111</b>	<b>241</b>	<b>581</b>
<b>Current</b>	<b>106</b>	<b>203</b>	<b>101</b>	<b>7</b>	<b>273</b>	<b>690</b>

<sup>1</sup>Other provisions include provisions for various obligations such as costs associated with exiting the Russian market, indirect tax provisions, employee-related provisions other than restructuring provisions and asset retirement obligations.

<sup>2</sup>The utilization of restructuring provision includes items transferred to accrued expenses, of which EUR 55 million remained in accrued expenses at 30 June 2023.

## 9. COMMITMENTS, CONTINGENCIES AND LEGAL PROCEEDINGS

EUR million	30 June 2023	30 June 2022	31 December 2022
<b>Contingent liabilities on behalf of Group companies</b>			
Guarantees issued by financial institutions			
Commercial guarantees	1 317	1 234	1 238
Non-commercial guarantees	574	508	538
Corporate guarantees			
Commercial guarantees	497	480	504
Non-commercial guarantees	32	40	32
<b>Financing commitments</b>			
Customer finance commitments	17	32	26
Venture fund commitments	399	469	433

The amounts in the table above represent the maximum principal amount of commitments and contingencies, and these amounts do not reflect management's expected outcomes.

### Litigations and proceedings

Significant changes to information about litigation and proceedings presented in Nokia's annual consolidated financial statements for 2022:

#### Continental

In 2019, Continental Automotive Systems (Continental) brought breach of FRAND (fair, reasonable and non-discriminatory terms) and antitrust claims against Nokia and others. The antitrust claims were dismissed with prejudice. In 2022, this decision became final after Continental lost on appeal and reconsideration requests. Continental also brought breach of contract and FRAND-related claims against Nokia in 2021. In the beginning of 2023, Nokia's motion to dismiss was granted in part and denied in part, and the action is proceeding on the remaining claims at this time.

#### Oppo

In 2021, Nokia commenced patent infringement proceedings against Oppo, OnePlus and Realme in several countries in Asia and Europe. Across these actions, more than 30 patents are in suit, covering a mix of cellular standards and technologies such as connectivity, user interface and security. Oppo responded by filing invalidation actions against certain Nokia patents, a number of patent infringement actions against Nokia equipment in Germany, China and Finland and actions in China against Nokia relating to standard essential patent licensing issues. Nokia filed an additional case in Brazil and obtained a preliminary injunction. Nokia has had multiple patents confirmed as valid and infringed including in Germany, the Netherlands and the UK.

#### Vivo

In 2022, Nokia commenced patent infringement proceedings against Vivo in Germany and several countries in Asia. Vivo responded by filing a number of patent infringement actions against Nokia equipment in Germany and China. They also filed an action in China against Nokia relating to standard essential patent licensing issues. Nokia has had patents confirmed as infringed in Germany.

# Performance measures

Certain financial measures presented in this interim report are not measures of financial performance, financial position or cash flows defined in IFRS, and therefore may not be directly comparable with financial measures used by other companies, including those in the same industry. The primary rationale for presenting these measures is that the management uses these measures in assessing the financial performance of Nokia and believes that these measures provide meaningful supplemental information on the underlying business performance. These financial measures should not be considered in isolation from, or as a substitute for, financial information presented in compliance with IFRS.

The below tables provide summarized information on the performance measures included in this interim report as well as reconciliations of the performance measures to the amounts presented in the financial statements.

Performance measure	Definition	Purpose
Comparable measures	Comparable measures exclude intangible asset amortization and other purchase price fair value adjustments, goodwill impairments, restructuring related charges and certain other items affecting comparability. Reconciliation of reported and comparable consolidated statement of income is presented below.	We believe that our comparable results provide meaningful supplemental information to both management and investors regarding Nokia's underlying business performance by excluding certain items of income and expenses that may not be indicative of Nokia's business operating results. Comparable operating profit is used also in determining management remuneration.
Constant currency net sales / Net sales adjusted for currency fluctuations	When net sales are reported on a constant currency basis / adjusted for currency fluctuations, exchange rates used to translate the amounts in local currencies to euro, our reporting currency, are the average actual periodic exchange rates for the comparative financial period. Therefore, the constant currency net sales / net sales adjusted for currency fluctuations exclude the impact of changes in exchange rates during the current period in comparison to euro.	We provide additional information on net sales on a constant currency basis / adjusted for currency fluctuations in order to better reflect the underlying business performance.
Comparable return on invested capital (ROIC)	Comparable operating profit after tax, last four quarters / Invested capital, average of last five quarters' ending balances. Calculation of comparable return on invested capital is presented below.	Comparable return on invested capital is used to measure how efficiently Nokia uses its capital to generate profits from its operations.
Comparable operating profit after tax	Comparable operating profit - (comparable operating profit x (- comparable income tax expense / comparable profit before tax))	Comparable operating profit after tax indicates the profitability of Nokia's underlying business operations after deducting the income tax impact. We use comparable operating profit after tax to calculate comparable return on invested capital.
Invested capital	Total equity + total interest-bearing liabilities - total cash and interest-bearing financial investments	Invested capital indicates the book value of capital raised from equity and debt instrument holders less cash and liquid assets held by Nokia. We use invested capital to calculate comparable return on invested capital.
Total cash and interest-bearing financial investments ("Total cash")	Total cash and interest-bearing financial investments consist of cash and cash equivalents and current interest-bearing financial investments and non-current interest-bearing financial investments.	Total cash and interest-bearing financial investments is used to indicate funds available to Nokia to run its current and invest in future business activities as well as provide return for security holders.
Net cash and interest-bearing financial investments ("Net cash")	Net cash and interest-bearing financial investments equals total cash and interest-bearing financial investments less long-term and short-term interest-bearing liabilities. Lease liabilities are not included in interest-bearing liabilities. Reconciliation of net cash and interest-bearing financial investments to the amounts in the consolidated statement of financial position is presented below.	Net cash and interest-bearing financial investments is used to indicate Nokia's liquidity position after cash required to settle the interest-bearing liabilities.
Free cash flow	Net cash flows from/(used in) operating activities - purchases of property, plant and equipment and intangible assets (capital expenditures) + proceeds from sale of property, plant and equipment and intangible assets - purchase of other non-current financial investments + proceeds from sale of other non-current financial investments. Reconciliation of free cash flow to the amounts in the consolidated statement of cash flows is presented below.	Free cash flow is the cash that Nokia generates after net investments to tangible and intangible assets, as well as non-current financial investments and it represents the cash available for distribution among its security holders. It is a measure of cash generation, working capital efficiency and capital discipline of the business.
Capital expenditure	Purchases of property, plant and equipment and intangible assets (excluding assets acquired under business combinations).	We use capital expenditure to describe investments in profit generating activities in the future.
Recurring/One-time measures	Recurring measures, such as recurring net sales, are based on revenues that are likely to continue in the future. Recurring measures exclude e.g. the impact of catch-up net sales relating to prior periods. One-time measures, such as one-time net sales, reflect the revenues that are not likely to continue in the future.	We use recurring/one-time measures to improve comparability between financial periods.
Adjusted profit/(loss)	Adjusted profit/(loss) equals the cash from operations before changes in net working capital subtotal in the consolidated statement of cash flows.	We use adjusted profit/(loss) to provide a structured presentation when describing the cash flows.
Recurring annual cost savings	Reduction in cost of sales and operating expenses resulting from the cost savings program and the impact of which is considered recurring in nature.	We use recurring annual cost savings measure to monitor the progress of our cost savings program established after the Alcatel-Lucent transaction against plan.
Restructuring and associated charges, liabilities and cash outflows	Charges, liabilities and cash outflows related to activities that either meet the strict definition of restructuring under IFRS or are closely associated with such activities.	We use restructuring and associated charges, liabilities and cash outflows to measure the progress of our integration and transformation activities.

## Comparable to reported reconciliation

### Q2'23

EUR million	Cost of sales	Research and development expenses	Selling, general and administrative expenses	Other operating income and expenses	Operating profit	Share of results of associates and joint ventures	Financial income and expenses	Income tax (expense)/benefit	Profit from continuing operations
<b>Comparable</b>	<b>(3 494)</b>	<b>(1 026)</b>	<b>(618)</b>	<b>54</b>	<b>626</b>	<b>(13)</b>	<b>(52)</b>	<b>(148)</b>	<b>414</b>
Amortization of acquired intangible assets	—	(13)	(75)	—	(87)	—	—	21	(66)
Restructuring and associated charges	(36)	(6)	(11)	—	(53)	—	—	10	(43)
Change in provisions related to past acquisitions	—	—	—	(20)	(20)	—	—	4	(16)
Costs associated with country exit	—	—	—	13	13	—	—	(3)	11
Divestment of businesses	—	—	—	(4)	(4)	—	(11)	(1)	(16)
Impairment and write-off of assets, net of reversals	(1)	(1)	—	—	(1)	—	—	—	(1)
Change in financial liability to acquire NSB non-controlling interest	—	—	—	—	—	—	8	—	8
Items affecting comparability	(36)	(19)	(85)	(11)	(152)	—	(2)	32	(124)
<b>Reported</b>	<b>(3 530)</b>	<b>(1 045)</b>	<b>(703)</b>	<b>43</b>	<b>474</b>	<b>(13)</b>	<b>(54)</b>	<b>(116)</b>	<b>290</b>

### Q2'22

EUR million	Cost of sales	Research and development expenses	Selling, general and administrative expenses	Other operating income and expenses	Operating profit	Share of results of associates and joint ventures	Financial income and expenses	Income tax (expense)/benefit	Profit from continuing operations
<b>Comparable</b>	<b>(3 487)</b>	<b>(1 069)</b>	<b>(623)</b>	<b>20</b>	<b>714</b>	<b>(6)</b>	<b>(27)</b>	<b>(95)</b>	<b>585</b>
Amortization of acquired intangible assets	—	(13)	(87)	—	(100)	—	—	22	(79)
Restructuring and associated charges	(26)	(8)	(17)	1	(50)	—	—	—	(50)
Impairment and write-off of assets, net of reversals	—	—	—	—	1	—	—	—	1
Change in financial liability to acquire NSB non-controlling interest	—	—	—	—	—	—	10	—	10
Items affecting comparability	(25)	(21)	(105)	1	(150)	—	10	22	(118)
<b>Reported</b>	<b>(3 512)</b>	<b>(1 091)</b>	<b>(728)</b>	<b>22</b>	<b>564</b>	<b>(6)</b>	<b>(18)</b>	<b>(74)</b>	<b>467</b>

## Q1-Q2'23

EUR million	Cost of sales	Research and development expenses	Selling, general and administrative expenses	Other operating income and expenses	Operating profit	Share of results of associates and joint ventures	Financial income and expenses	Income tax (expense)/benefit	Profit from continuing operations
<b>Comparable</b>	<b>(7 146)</b>	<b>(2 119)</b>	<b>(1 259)</b>	<b>61</b>	<b>1 106</b>	<b>(19)</b>	<b>(61)</b>	<b>(270)</b>	<b>756</b>
Amortization of acquired intangible assets	—	(26)	(151)	—	(176)	—	—	42	(135)
Restructuring and associated charges	(48)	(10)	(22)	(1)	(81)	—	—	14	(67)
Costs associated with country exit	—	—	—	48	48	—	—	(10)	39
Divestment of businesses	—	—	—	22	22	—	(11)	(6)	5
Change in provisions related to past acquisitions	—	—	—	(20)	(20)	—	—	4	(16)
Impairment and write-off of assets, net of reversals	—	—	—	—	1	—	—	—	1
Change in financial liability to acquire NSB non-controlling interest	—	—	—	—	—	—	(2)	—	(2)
Items Affecting comparability	(48)	(35)	(173)	50	(206)	—	(13)	43	(175)
<b>Reported</b>	<b>(7 194)</b>	<b>(2 154)</b>	<b>(1 432)</b>	<b>111</b>	<b>900</b>	<b>(19)</b>	<b>(74)</b>	<b>(227)</b>	<b>581</b>

## Q1-Q2'22

EUR million	Cost of sales	Research and development expenses	Selling, general and administrative expenses	Other operating income and expenses	Operating profit	Share of results of associates and joint ventures	Financial income and expenses	Income tax (expense)/benefit	Profit from continuing operations
<b>Comparable</b>	<b>(6 658)</b>	<b>(2 122)</b>	<b>(1 204)</b>	<b>60</b>	<b>1 296</b>	<b>(32)</b>	<b>(67)</b>	<b>(196)</b>	<b>1 001</b>
Amortization of acquired intangible assets	—	(28)	(172)	—	(200)	—	—	43	(157)
Costs associated with country exit	—	—	—	(104)	(104)	—	—	—	(104)
Restructuring and associated charges	(35)	(16)	(28)	(1)	(80)	—	—	—	(80)
Impairment and write-off of assets, net of reversals	2	3	1	—	6	—	—	—	6
Loss allowance on customer financing loan	—	—	—	—	—	—	(29)	—	(29)
Change in financial liability to acquire NSB non-controlling interest	—	—	—	—	—	—	7	—	7
Items affecting comparability	(32)	(41)	(199)	(106)	(378)	—	(22)	43	(357)
<b>Reported</b>	<b>(6 690)</b>	<b>(2 163)</b>	<b>(1 403)</b>	<b>(46)</b>	<b>918</b>	<b>(32)</b>	<b>(90)</b>	<b>(153)</b>	<b>644</b>

## Net cash and interest-bearing financial investments

EUR million	30 June 2023	31 March 2023	31 December 2022	30 September 2022	30 June 2022
Non-current interest-bearing financial investments	865	898	697	715	473
Current interest-bearing financial investments	1 860	2 889	3 080	3 340	3 253
Cash and cash equivalents	5 106	4 827	5 467	5 196	5 457
Total cash and interest-bearing financial investments	7 831	8 614	9 244	9 251	9 183
Long-term interest-bearing liabilities <sup>1</sup>	3 584	3 704	4 249	4 364	4 424
Short-term interest-bearing liabilities <sup>1</sup>	587	606	228	232	213
Total interest-bearing liabilities	4 171	4 310	4 477	4 596	4 637
<b>Net cash and interest-bearing financial investments</b>	<b>3 660</b>	<b>4 304</b>	<b>4 767</b>	<b>4 655</b>	<b>4 546</b>

<sup>1</sup>Lease liabilities are not included in interest-bearing liabilities.

## Free cash flow

EUR million	Q2'23	Q2'22	Q1-Q2'23	Q1-Q2'22
Net cash flows from operating activities	(333)	(43)	(250)	516
Purchase of property, plant and equipment and intangible assets	(127)	(101)	(359)	(290)
Proceeds from sale of property, plant and equipment and intangible assets	84	32	98	33
Purchase of other non-current financial investments	(25)	(18)	(41)	(76)
Proceeds from sale of other non-current financial investments	21	14	25	27
<b>Free cash flow</b>	<b>(380)</b>	<b>(116)</b>	<b>(527)</b>	<b>210</b>

## Comparable return on invested capital (ROIC) Q2'23

EUR million	Rolling four quarters	Q2'23	Q1'23	Q4'22	Q3'22
Comparable operating profit	2 917	626	479	1 154	658
Comparable profit before tax	2 887	562	464	1 194	667
Comparable income tax expense	(651)	(148)	(122)	(265)	(116)
<b>Comparable operating profit after tax</b>	<b>2 256</b>	<b>461</b>	<b>353</b>	<b>898</b>	<b>544</b>

EUR million	Average	30 June 2023	31 March 2023	31 December 2022	30 September 2022	30 June 2022
Total equity	20 580	21 276	21 375	21 426	19 797	19 026
Total interest-bearing liabilities	4 438	4 171	4 310	4 477	4 596	4 637
Total cash and interest-bearing financial investments	8 825	7 831	8 614	9 244	9 251	9 183
<b>Invested capital</b>	<b>16 193</b>	<b>17 616</b>	<b>17 071</b>	<b>16 659</b>	<b>15 142</b>	<b>14 480</b>

**Comparable ROIC** **13.9%**

## Q1'23

EUR million	Rolling four quarters	Q1'23	Q4'22	Q3'22	Q2'22
Comparable operating profit	3 005	479	1 154	658	714
Comparable profit before tax	3 006	464	1 194	667	681
Comparable income tax expense	(598)	(122)	(265)	(116)	(95)
<b>Comparable operating profit after tax</b>	<b>2 411</b>	<b>354</b>	<b>899</b>	<b>544</b>	<b>614</b>

EUR million	Average	31 March 2023	31 December 2022	30 September 2022	30 June 2022	31 March 2022
Total equity	19 941	21 375	21 426	19 797	19 026	18 083
Total interest-bearing liabilities	4 527	4 310	4 477	4 596	4 637	4 615
Total cash and interest-bearing financial investments	9 162	8 614	9 244	9 251	9 183	9 519
<b>Invested capital</b>	<b>15 306</b>	<b>17 071</b>	<b>16 659</b>	<b>15 142</b>	<b>14 480</b>	<b>13 179</b>

**Comparable ROIC** **15.8%**

## Q2'22

EUR million	Rolling four quarters	Q2'22	Q1'22	Q4'21	Q3'21
Comparable operating profit	2 838	714	583	908	633
Comparable profit before tax	2 668	681	516	891	580
Comparable income tax expense	(472)	(95)	(101)	(159)	(117)
<b>Comparable operating profit after tax</b>	<b>2 334</b>	<b>614</b>	<b>469</b>	<b>746</b>	<b>505</b>

EUR million	Average	30 June 2022	31 March 2022	31 December 2021	30 September 2021	30 June 2021
Total equity	17 060	19 026	18 083	17 462	16 392	14 337
Total interest-bearing liabilities	4 810	4 637	4 615	4 653	5 081	5 063
Total cash and interest-bearing financial investments	9 220	9 183	9 519	9 268	9 381	8 751
<b>Invested capital</b>	<b>12 649</b>	<b>14 480</b>	<b>13 179</b>	<b>12 847</b>	<b>12 092</b>	<b>10 649</b>

**Comparable ROIC** **18.5%**

This financial report was approved by the Board of Directors on 20 July 2023.

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- Nokia plans to publish its third quarter and January-September 2023 results on 19 October 2023.