

Strategy and operating model update

NOKIA

A person is walking away from the camera on a dirt path that winds through a field of tall, golden-brown grass. The sky is filled with soft, orange and yellow clouds, suggesting a sunset or sunrise. The overall mood is peaceful and contemplative. The Nokia logo is overlaid on the image, with the letters appearing semi-transparent and blending with the background colors.

16 December 2020

Disclaimer

It should be noted that Nokia and its business are exposed to various risks and uncertainties and certain statements herein that are not historical facts are forward-looking statements. These forward-looking statements reflect Nokia's current expectations and views of future developments and include the statements in the Outlook section and statements preceded by "believe", "expect", "expectations", "commit", "anticipate", "foresee", "see", "target", "estimate", "designed", "aim", "plan", "intend", "influence", "assumption", "focus", "continue", "project", "should", "is to", "will" or similar expressions. These statements are based on management's best assumptions and beliefs in light of the information currently available to it.

Because they involve risks and uncertainties, actual results may differ materially from the results that we currently expect. Factors, including risks and uncertainties that could cause such differences can be both external, such as general, economic and industry conditions, as well as internal operating factors. We have identified these in more detail in our annual report on Form 20-F for the year ended December 31, 2019 under "Operating and Financial Review and Prospects—Risk Factors", our financial report for Q1/2020 published on 30 April 2020 on Form 6-K, and in our other filings or documents furnished with

the U.S. Securities and Exchange Commission, including Nokia's financial results reports. Other unknown or unpredictable factors or underlying assumptions subsequently proven to be incorrect could cause actual results to differ materially from those in the forward-looking statements. We do not undertake any obligation to publicly update or revise forward-looking statements, whether as a result of new information, future events or otherwise, except to the extent legally required.

Nokia presents financial information on reported, non-IFRS and constant currency basis. Non-IFRS measures presented in this document exclude costs related to the acquisition of Alcatel-Lucent and related integration, goodwill impairment charges, intangible asset amortization and other purchase price fair value adjustments, restructuring and associated charges and certain other items that may not be indicative of Nokia's underlying business performance. In order to allow full visibility on determining non-IFRS results, information on non-IFRS exclusions 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. Non-IFRS or constant currency financial measures should not be considered in isolation from, or as a substitute for, financial information presented in compliance with IFRS, and either of these financial measures as used by Nokia may not be comparable to similarly titled measures used by other companies or persons. Please see our complete financial report for more information on our results and financial performance for the indicated periods as well as our operating and reporting structure.

Proposed organizational changes referenced in this release may be subject to consultation with employee representatives in certain jurisdictions and are not considered final until such processes are completed.

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Welcome



Pekka Lundmark
President and CEO

- 4. Strategic analysis
- 10. Business group update, including market dynamics, our competitive positions, strategic imperatives and financial expectations

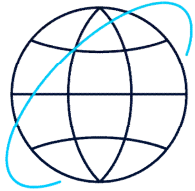


Marco Wirén
CFO

- 25. Strong capital structure and prudent financing strategy
- 27. Prioritizing capital towards areas where we can achieve leadership
- 28. Driving a lean corporate structure
- 29. Clear and transparent reporting and communication

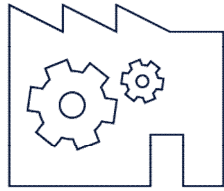
Strategic analysis

Technology is vital in solving the world's challenges



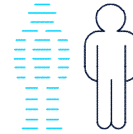
Pressure on the planet is increasing

Reducing carbon emissions and optimizing our use of scarce resources



Productivity is stalling

Bringing digitalization to the physical industries it has not yet reached



Access to opportunity remains stubbornly unequal

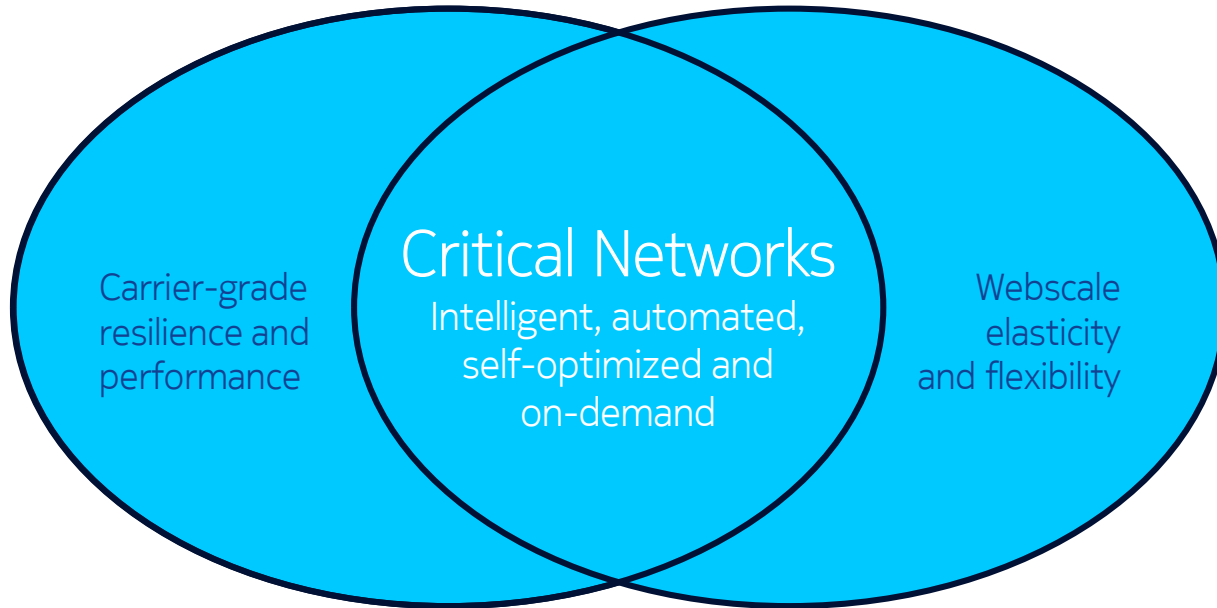
Providing more inclusive access to work, healthcare and education

A summary of our six strategic beliefs

1. Networks play an increasingly important role in society. This allows us to extend our focus to serving Critical Networks beyond CSPs.

Critical Networks

Networks are playing an increasingly important role in society. This is allowing us to extend our focus to serving Critical Networks beyond CSPs.



A summary of our six strategic beliefs

1. Networks play an increasingly important role in society. This allows us to extend our focus to serving Critical Networks beyond CSPs.

2. Critical Networks are built based on a best-of-breed approach with network elements selected on a best performance per TCO basis.

3. Technology leadership underpins momentum and financial returns in Critical Networks.

4. Re-establishing technology leadership in some segments requires us to anticipate, shape and invest in the next technology window – where there is no path, we will reassess segment participation.

5. Over the longer term, value in Critical Networks is migrating away from monolithic systems towards silicon, software and service and will be captured through different business models.

6. Sustained investment in long-term innovation provides us with a platform to take the long view.

Our focus areas

For customers	A trusted partner for Critical Networks		
For shareholders	Drive long-term value growth		
What	Secure technology leadership	Build our cloud software and network services future	Strengthen our long-term research and patent portfolio
How	Invest in a best-of-breed portfolio		
	Renew our operating model, capabilities and culture		

About our business

Mobile Networks

Net sales of approximately € 10bn*



Tommi Uitto

President,
Mobile Networks

Portfolio

- Radio Access Network (RAN) and Microwave Radio Link products, and related network management solutions
- Network planning, deployment, optimization and technical support services

Objective

Create value by regaining industry leadership in wireless mobility networks and associated services

* Indicative only, in the last four quarters

Mobile Networks

Market

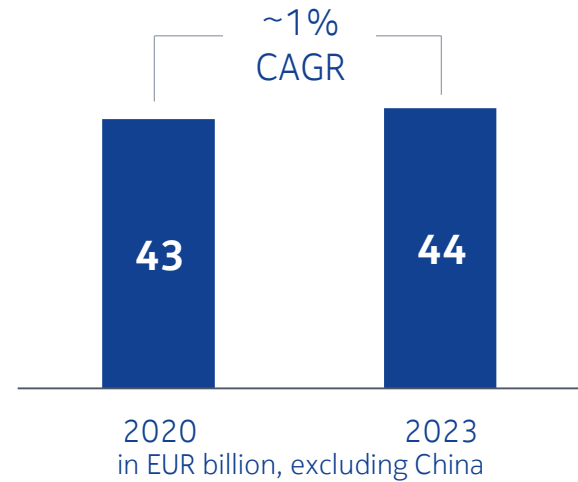
Slight overall market growth with significant growth in enterprise:

- 5G is driving customer demand
- Growth in ORAN and vRAN – we are investing to improve our technology leadership
- Trust and security are increasing in importance

Competitive position:

- #2 in 4G and 5G, excluding China
- #2 in rollout services, globally

*Source for estimates: Dell'Oro rolling four quarters for competitive position
External analysts and Nokia analysis for market, excluding China*



**Market share
4G and 5G, excluding China**

27%

Mobile Networks

Focus areas and expectations

Strategic imperatives

- 2021: Execute ongoing turnaround and drive competitiveness in 5G and services digitalization
- Leadership in 5G and ORAN/vRAN and maintaining scale with CSPs
- Grow enterprise-dedicated Private Wireless Networks business
- High performance and learning culture and lean operating model
- Accelerate cost reduction across products, services and power consumption

Comparable* operating margin %

2021:
around zero

Longer term:
significant
improvement

**Comparable results exclude amortization of acquired intangibles, restructuring and other items affecting comparability. The information provided reflects Nokia's new operating model, effective January 1, 2021.*

Network Infrastructure

Net sales of approximately € 7bn*



Federico Guillén

President,
Network Infrastructure

Portfolio

- IP Networks
- Optical Networks
- Fixed Networks
- Alcatel Submarine Networks

Objective

Create value by being the world's most trusted partner, with best-of-breed solutions for the world's most Critical Networks

* Indicative only, in the last four quarters

Network Infrastructure Market

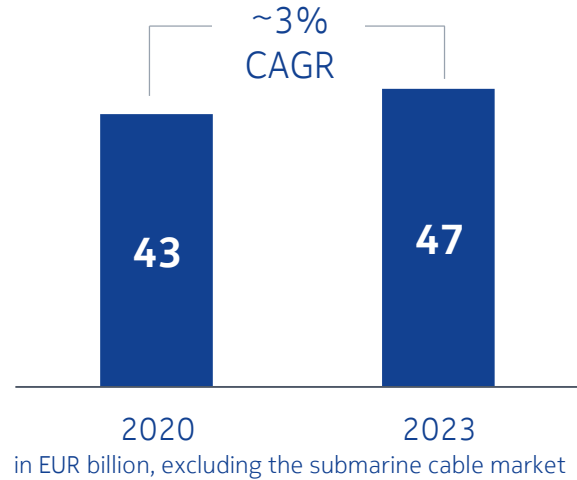
Overall growth driven by enterprise and webscale; CSP market flattish:

- Market factors, including the 5G cycle, drive customer demand
- Trust and security are increasing in importance

Competitive position:

- #3 in CSP IP routing (edge and core) – #2 excluding China
- #4 in optical networking (WDM) – #3 excluding China
- #2 in fixed access networks (ONT, OLT, DSL) – #1 excluding China
- Leader in submarine networks

Source for estimates: Dell'Oro and Omdia rolling four quarters for competitive positions
External analysts and Nokia analysis for global market



Market share	CSP IP routing	Optical networking	Fixed access
Global	18%	11%	19%
Excluding China	25%	17%	32%

Network Infrastructure

Focus areas and expectations

Strategic imperatives

- Expand leadership in IP routing for CSPs, establish data center switching/routing business and grow in enterprise/webscale switching and routing
- Grow optical sales into CSPs, webscale and enterprise while driving cost savings through targeted vertical integration
- Maintain leadership in fiber access and in 5G fixed wireless access
- Expand leadership position in submarine networks while scaling up our capacity

Comparable* operating margin %

2021:
high single digit

Longer term:
gradual
improvement

**Comparable results exclude amortization of acquired intangibles, restructuring and other items affecting comparability. The information provided reflects Nokia's new operating model, effective January 1, 2021.*

Cloud and Network Services

Net sales of approximately € 3bn*



Raghav Sahgal

President,
Cloud and Network Services

Portfolio

- Communications software
- Mobile and converged core solutions
- Enterprise solutions
- Cognitive services
- Managed services

Objective

Create value by leading the industry transition to cloud-native software and as-a-service delivery models, as demand for Critical Networks accelerates

* Indicative only, in the last four quarters

Cloud and Network Services Market

Significant value shift towards critical networks with growth in:

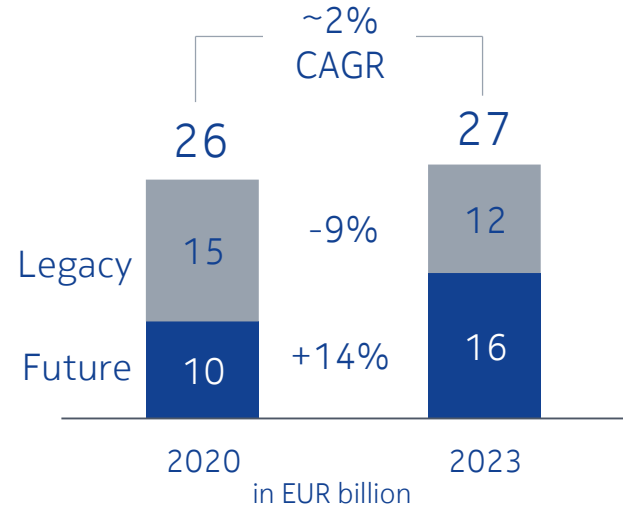
- Cloud-native, open architecture software
- Advanced, cognitive services
- As-a-service delivery models
- Industry 4.0 solutions, driven by 5G

Competitive position:

- #1 in telecommunications software and software services
- Leader in cognitive automation
- #1 in industrial private wireless*

*Source for estimates: Analysys Mason and GlobalData for competitive positioning
External analysts and Nokia analysis for market*

* Customer wins



Market share
Telecommunications software and software services

7%

Cloud and Network Services

Focus areas and expectations

Strategic imperatives

- Fully transition to cloud-native portfolio
- Expand cognitive service capability
- Boost leadership in private wireless
- Build network-enhanced industrial automation
- Transition to as-a-service delivery models
- Strengthen and scale partner ecosystem

Comparable* operating margin %

2021:
mid single digit

Longer term:
significant
improvement

**Comparable results exclude amortization of acquired intangibles, restructuring and other items affecting comparability. The information provided reflects Nokia's new operating model, effective January 1, 2021.*

Nokia Technologies

Net sales of approximately € 1.4bn*



Jenni Lukander
President,
Nokia Technologies

Portfolio

- Patent licensing
- Technology licensing
- Brand licensing

Objective

Create value by maintaining our industry-leading patent portfolio and growing Nokia's intellectual property licensing

* Indicative only, in the last four quarters

Nokia Technologies

- Industry-leading patent portfolio; circa 20,000 patent families, including 3,500+ 5G standard essential patent families
- An independent report concluded that Nokia is #1 for ownership of granted patents found essential to the 5G Standard*
- Strong licensing track record across the segments we focus on
- 200+ licensees across all programs

Competitive position, based on 2019 licensing revenue

#2

** Source: PA Consulting
The list of licensees is not all inclusive, it is for illustration purposes only and may include past and/or current licensees and does not imply future license renewals*

Agreement reached	Company	Achieved objectives
2008	Huawei	✓
2011	Apple	✓
2012	Blackberry	✓
2014	HTC	✓
2015	LG	✓
2016	Samsung	✓
2017	Apple	✓
2017	Xiaomi	✓
2017	Huawei	✓
2018	OPPO	✓
2018	Vivo	✓
2019	Samsung	✓

Nokia Technologies

Focus areas and expectations

Strategic imperatives

- Drive innovation by investing in 5G and multimedia R&D and standardization and continuing to renew our industry-leading patent portfolio for the long term
- Continue successful smartphone licensing by securing renewals for the major mobile device deals at favorable rates and licensing remaining uncontracted vendors
- Continue to diversify and grow in new segments, including Automotive, Consumer Electronics and IoT, and further leverage broad technology assets
- Build brand partnerships and grow brand value by developing new brand licensing opportunities, including in smart home and other connected devices

**Comparable results exclude amortization of acquired intangibles, restructuring and other items affecting comparability. The information provided reflects Nokia's new operating model, effective January 1, 2021.*

Comparable* operating profit

2021:
slight improvement
year-on-year

Longer term:
stable

Our refreshed operating model



Lean corporate center enabling fully accountable business groups

CFO remarks



Marco Wirén
CFO

- 25. Strong capital structure and prudent financing strategy
- 27. Prioritizing capital towards areas where we can achieve leadership
- 28. Driving a lean corporate structure
- 29. Clear and transparent reporting and communication

Strong capital structure and prudent financing strategy

The foundation for our long-term stability and liquidity, as well as our ability to invest in R&D to ensure technology leadership

We target an investment grade credit rating.

We intend to maintain a level of total cash and other liquid assets at 30% or more of annual net sales.

We are driving value creation through improved focus on capital allocation, both at the Nokia Group level, as well as at the business group level.

We will continuously review our competitive positions and address our portfolio accordingly. This could mean divestments and/or bolt-on acquisitions.

Clear capital allocation priorities

Our primary focus

is to deploy our capital towards organic or inorganic investments to ensure technology leadership in areas where we have a clear path towards creating shareholder value, while maintaining a strong capital structure and prudent financing strategy.

Our next priority

is to provide shareholders with capital returns. Naturally, in connection with the work on the strategic and financial targets, we will assess also the dividend policy.

We are creating long-term shareholder value by prioritizing capital

Prioritizing
capital towards
areas where we
can achieve
leadership

- We have four focused business groups with full operative P&L and operating cash flow ownership and accountability.
- Each business group is focused on creating shareholder value by prioritizing capital towards attractive areas – typically the industry leaders create more value.
- Each business must earn more than its cost of capital. At a minimum, there must be a credible path to value creation.
- In addition, we see opportunities for each business group to streamline and optimize its cost base and working capital, over time.

We are driving a lean corporate structure

Empowering
business
groups with full
accountability

- Moving forward, as much as possible, costs and headcount will be directly embedded in the business groups and the business groups will be able to control these costs
 - No allocations
 - ~14,000 people will be moved from corporate to business groups
- In addition, we have further potential to optimize our centralized corporate activities, over time

We are committed to clear and transparent reporting and communication

Our focus

- Open and transparent communications

Our goal

- To make it easier to assess and value each of our four business groups

Our commitments, beginning 2021

- Our external reporting will mirror our internal reporting
- We will provide P&L transparency to each of our four business groups
- We will host CMDs with a regular cadence

Improving reporting – an example

Beginning 2021, we intend to supplement our reported IFRS results by also reporting “Comparable operating profit,” which excludes items affecting comparability.

Furthermore, we will disclose the excluded items up front in our interim reports.

Q1-Q3'20 example

EUR million

Reported operating profit	444
Amortization of acquired intangible assets	-308
Restructuring and associated charges	-337
Gain on defined benefit plan amendment	90
Impairment of assets, net of impairment reversals	-25
Other	0
Comparable operating profit	1 025

Q&A

NOKIA