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 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, 2020 under “Operating and Financial Review and Prospects—Risk Factors”, 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, comparable and constant currency basis. Comparable measures presented in this document exclude intangible asset amortization and other 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.

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Mobile Networks at a glance
29 of top 30* mobile operator groups run Nokia base stations

- Annual revenue in 2020: €10bn
- R&D engineers: ~18k
- In 4G and 5G Radio Access Networks (RAN), excluding China: #2
- Commercial 5G agreements: 196
- Live 5G networks: 55

*) Source: GSMA Intelligence
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We made significant progress in product development and product platform turnaround in 2019 - 2020

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R&amp;D headcount increase in 5G/NR</td>
<td>Position in granted 5G Standard Essential Patents (SEP)*</td>
<td>5G/NR Feature Output</td>
<td>5G Powered by ReefShark SoC</td>
<td>Share of employees enabled to perform above external benchmark **</td>
</tr>
<tr>
<td></td>
<td>+40%</td>
<td>#1</td>
<td>+58%</td>
<td>Q4’19 10 43</td>
<td>75%</td>
</tr>
</tbody>
</table>

* Sources: PA Consulting Group, IPLytics GmbH  ** Source: Accenture Transformation GPS
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5G and Enterprise are driving growth in Mobile Networks

We are still in early stages of the 5G cycle, which has an extended peak

- **5G growing in flattish CSP market**
- **Trust and security increasing in importance**
- **Enterprise use cases driving growth beyond mobile broadband**
- **Gradual adoption of Open RAN and Virtualized RAN**

---

**4G/5G market* share in 2021**

- 25%-27%

**Overall Mobile Networks market* growth 2020-23**

- 1% CAGR
  - 2020: €44bn
  - 2023: €45bn

**Private Wireless Networks market* growth**

- 35% CAGR

---

*excluding mainland China

Source: Nokia market intelligence
We have won several new CSP customers in RAN since 2019...
... helping to offset headwinds in China and North America

22 new RAN customers

Increased RAN share with 20 customers

+12 non-public

+4 non-public
Private wireless and IoT expand critical networks market into Enterprise

We are leading the market in private wireless networks, a segment that grows by 35% annually

Private Wireless Networks sold to 260+ customers via CSP or direct, of which 30+ are 5G
We are shaping the future of wireless with Open RAN and vRAN
Bringing the benefits of cloud computing to mobile networks for CSP and Enterprise

5G vDU, 5G vCU
Cloud infrastructure

Radio Unit (RU)  
Distributed Unit (DU)  
Centralized Unit (CU)
Deutsche Telekom has chosen Nokia in O-RAN Town in Germany

We are the leader in making O-RAN and vRAN commercial reality

“I am particularly pleased that with Nokia we have also been able to win a strong European partner for our cooperation in O-RAN.”

Claudia Nemat
Chief Technology Officer
Deutsche Telekom
DTAG NetzTag (Network Day) on Dec 8, 2020
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## Our vision for technology leadership and value creation

The leading and trusted partner for 5G wireless networks for CSPs and Enterprise

### Strategic focus

<table>
<thead>
<tr>
<th>Scale</th>
<th>Success factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Convert Nokia 4G CSP customers to 5G</td>
<td></td>
</tr>
<tr>
<td>• Continue winning new CSP customers</td>
<td></td>
</tr>
<tr>
<td>• Continue winning in Enterprise segment</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product competitiveness</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Build on product platform and R&amp;D turn-around</td>
<td></td>
</tr>
<tr>
<td>• Increase 5G R&amp;D capacity further</td>
<td></td>
</tr>
<tr>
<td>• Continue reducing product and service cost</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shaping the market</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Leading solutions for e2e slicing and private wireless networks</td>
<td></td>
</tr>
<tr>
<td>• Make O-RAN commercial reality to gain share</td>
<td></td>
</tr>
<tr>
<td>• Bring cloud computing benefits to mobile networks</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resetting fixed cost base</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reap the benefits of the new operating model</td>
<td></td>
</tr>
<tr>
<td>• Significantly lower fixed cost base to fund R&amp;D increase</td>
<td></td>
</tr>
<tr>
<td>• Continue improving R&amp;D productivity</td>
<td></td>
</tr>
</tbody>
</table>

### Comparable Operating Margin

- **In 2023…**
  - 5%-8%

- **… and in longer term**
  - 10%+

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We have a focused strategy to regain profitability
Concrete action plans to drive technology leadership and value creation

Comparable operating profit

<table>
<thead>
<tr>
<th>Year</th>
<th>Product Gross Margin</th>
<th>Deploy services volume</th>
<th>Services Gross Margin</th>
<th>North America, China 4G, 5G R&amp;D investment</th>
<th>Share gains RoW, Gross margin, fixed costs</th>
<th>Restructuring</th>
<th>Volume</th>
<th>Gross Margin</th>
<th>Restructuring</th>
<th>Other</th>
<th>2023</th>
<th>Longer term</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019*</td>
<td>Restated (preliminary)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Comparable operating margin

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2023</th>
<th>Longer term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Margin</td>
<td>~2%</td>
<td>8%</td>
<td>-1–2%</td>
<td>5–8%</td>
<td>&gt;10%</td>
</tr>
</tbody>
</table>
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Expanding ReefShark System-on-Chip (SoC) family drives competitiveness in capacity, cost and power consumption

<table>
<thead>
<tr>
<th>Partnerships with leading SoC houses to complement Nokia IP for ReefShark</th>
<th>Nokia IP blocks</th>
<th>Partner IP blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3rd party IP blocks</td>
</tr>
</tbody>
</table>

ReefSharks power both Baseband and RF portfolio

<table>
<thead>
<tr>
<th>Baseband</th>
<th>Radio Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nokia IP blocks</td>
<td>Nokia IP blocks</td>
</tr>
</tbody>
</table>

Fully ReefShark based portfolio from 2022

<table>
<thead>
<tr>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPGA</td>
<td>43%</td>
<td>70%</td>
<td>ReefShark SoC</td>
</tr>
<tr>
<td>20%</td>
<td>70%</td>
<td>2022</td>
<td></td>
</tr>
</tbody>
</table>
We are digitalizing service delivery for cost, speed and quality

**Integrated operating model**
- Increased focus on Design for Services (DfS) in product development
- Optimizing total cost of ownership for products and attached services

**Digitalization and automation**
- 100% digitalized 5G deployments worldwide
- Industry-first AI based intuitive chatbot embedded into case handling process
- Industry-first "zero-touch" site and cluster acceptance

**Efficiency and execution excellence**
- 35% improvement in end-to-end deployment lead time
- Up to 30% reduction in case handling time
Crowdsourced data shows Nokia 4G leads the market in performance

We deliver the highest data speeds across 36 representative countries and 226 cities.

Average download speed (Mbps)

<table>
<thead>
<tr>
<th>Supplier</th>
<th>December 1, 2020</th>
<th>February 28, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nokia</td>
<td>26</td>
<td>29</td>
</tr>
<tr>
<td>Supplier A</td>
<td>26</td>
<td>29</td>
</tr>
<tr>
<td>Supplier B</td>
<td>26</td>
<td>29</td>
</tr>
</tbody>
</table>

Average 4G downlink speed (Mbps)

Average 4G uplink speed (Mbps)

Average 4G latency (ms)

Nokia analysis based on crowdsourced data from Tutela Technologies, Ltd.
Crowdsourced data shows positive Nokia 5G NSA performance
A case of large South Korean dual-connectivity network with three suppliers

Average 5G NSA (ENDC) downlink speed (Mbps)

February 28, 2021
January 1, 2021

Supplier A
Supplier C

Average 5G NSA (ENDC) downlink speed per city (Mbps)

Nokia analysis based on crowdsourced data from Tutela Technologies, Ltd.
We are resetting fixed cost base with new operating model...

...while sharpening focus on customers and our culture

New operating model

| One P&L | Fully P&L accountable Business Group | Managing product and attached services business as one | End-to-end Regional Business Centers | Strong performance management |

Learning

| Continuous learning | Trust |

High performance

| Total business ownership | Commitment culture | Cross-functional collaboration |
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Timeline to technology leadership and improved value creation

**2021**

- **Reset**
  - Secure full portfolio competitiveness
  - Continue 5G momentum with CSPs and for private wireless customers
  - Launch vRAN2.0 and O-RAN solutions
  - Reset fixed costs

  **-1%...2% Operating Margin in 2021**

**2022-2023**

- **Accelerate**
  - Lead in 5G network performance
  - Convert portfolio competitiveness into further revenue and margin with CSPs and for private wireless customers
  - Capitalize on early O-RAN/vRAN market-making
  - Reap full benefits of fixed cost reset

  **5%...8% Operating Margin in 2023**

**Longer term**

- **Scale**
  - Finalize and densify CSP 5G build-outs
  - Drive 5G growth with new use cases for private wireless networks
  - Transition most CSP spectrum to 5G
  - Profit from O-RAN and vRAN leadership
  - Prepare for 6G

  **10+% Operating Margin in longer term**