Our
strategy

We are rebalancing for growth, putting Nokia at the heart of unprecedented technology demands as innovators of the global nervous system.

The vision of the Programmable World continues to guide our corporate strategy. We have identified six global megatrends that drive the Programmable World. These megatrends create massive technological requirements, impact our current and potential customers, change the lives of people and impact business operations on a global scale and ultimately provide opportunities for Nokia to diversify into new growth areas.

The megatrends we have identified are:

1. **Network, compute and storage:** Ever present broadband capacity coupled with a distributed Cloud for ubiquitous compute and near infinite storage, allowing limitless connectivity and imperceptible latency

2. **Internet of Things:** In addition to people, trillions of things are connected to the internet, collecting unprecedented amounts of data in a private and business context

3. **Augmented Intelligence:** New tools transform the collected data into actionable insights, fundamentally changing the way decisions are made by businesses, governments and individuals, resulting in time savings, less waste, higher efficiency and new business models

4. **Human and machine interaction:** A range of new form factors that fundamentally transform the way humans interact with each other and with machines, e.g. voice-based digital assistance, gesture control, smart clothes, implantable chips, robotics and Augmented and Virtual Reality

5. **Social and trust economics:** Ubiquitous connectivity, compute and storage, as well as technologies such as block chain, enabling new business models based on sharing assets and distributed trust, allowing rapid scalability on a global level

6. **Digitization and ecosystems:** Next level of digitization beyond content and information, digitizing atoms with additive printing in an industrial, consumer and medical context, fundamentally transforming production processes

These megatrends are driving massive new technology requirements, and end-to-end networks are a central enabler for all aforementioned megatrends, which create a multitude of opportunities for us. Nokia Bell Labs has developed a vision of a future network architecture that fulfills all of these requirements in a holistic way—the Future X network vision. This is our guide not just to how things will change, but also to what we need to do to meet the future needs of our customers and to address these megatrends. The Future X vision encompasses the key domains of future networks: massive scale access, converged edge cloud, smart network fabric, universal adaptive core, programmable network operating systems, augmented cognition systems, digital value platforms and dynamic data security.

Simultaneously, driven by the identified megatrends and the increasing relevance of networks, we are seeing a shift in who is investing in technology. Our primary market, comprised of CSPs, in which we have a leadership position, is expected to remain challenging with a limited estimated growth opportunity over the next five years. However, the megatrends are increasing the demand for large high-performance networks in other key areas, which we define as our select vertical markets. Webscale companies—such as Google, Microsoft, and Alibaba—are investing in Cloud technology and network infrastructure on an increasing scale. As other vertical markets such as energy, transportation and government digitize their operations, they will need massive mission-critical networks. The same is true for TXLEs—technically sophisticated companies, such as banks, that invest heavily in their own network infrastructures to gain a key competitive advantage. Consequently, we have identified attractive growth opportunities in new domains outside our primary market with CSPs, which remains a significant market.

We are addressing both our primary CSP market and the newly identified growth opportunities in our adjacent market with our "Rebalancing for Growth" strategy. This strategy builds on our core strength of delivering large high-performance networks by methodically expanding our business into targeted, higher-growth and higher-margin vertical markets. Our ambition is to grow the share of our revenue that is derived from outside the CSPs.

This strategy builds on our business portfolio and continued drive to design technology that serves people and includes the following four key priorities:

1.Lead

Lead in high-performance, end-to-end networks with CSPs

Nokia is a leader in this area today and we will use our main competitive advantage—a near 100% end-to-end portfolio that we can deliver on a global scale—to maintain our leadership while managing for profitability. Within this first priority, we are focused on:

- monetizing additional waves of 4G and establishing leadership in 5G by being first to market with key customers and global technology leadership;

- maintaining our leading market share in copper access, accelerating momentum in fiber access, successfully entering the cable market, and developing new smart home solutions;

- leveraging our superior products to expand in both edge and core routing, where we have a fully virtualized portfolio that is differentiated by performance, flexibility, and quality;

- using our unique capability of offering optical and routing that work together, a capability that is increasingly becoming a customer requirement; and

- delivering cost savings by realizing synergies and applying best practices across our entire portfolio to maintain the industry's most profitable networks business.

Over the next two years, we intend to maintain our leading position with CSPs, while establishing ourselves as a credible and recognized player in our target vertical markets among enterprises. We strive to sustain and rebuild Nokia as a value-adding consumer brand, earning returns through both our own businesses and licensing.

2.Expand

Expand network sales to select vertical markets

We will expand into five select vertical markets with carrier-grade needs: energy, transportation, public sector, TXLEs and Webscales. As the world becomes ever more digital, the kind of massive, high-performance networks once used almost exclusively in telecommunications are now needed by other organizations. Webscale customers will increasingly require high-performance networks to improve customer experiences and to expand their primary business models.

■ For Webscale companies we have identified two areas for diversification:

– all-IP-led, with a focus on providing more IP routing and optical network infrastructure; and

– mobile access-led, targeted at those Webscales that wish to expand into mobile access connectivity with consumers.

■ In terms of select vertical markets, we have a three-pronged approach:

– target a limited number of customer segments to ensure focus;

– leverage our full end-to-end portfolio to increase penetration with customers; and

– accelerate and diversify our go-to-market.

3.Build

Build a strong standalone software business

While Nokia has a large software business today, much of that is attached to our hardware products. Our ambition is to move beyond that approach in the medium term and ultimately to create a large global software player that has the margin profile consistent with large software companies. We have three priorities to achieve this ambition:

- generate an uplift to our business by selling software assets we have today because our software is largely network-agnostic. Fixed, cable and enterprise customers are targets for expansion;

- market our current software to select vertical markets. Some of our software assets today are highly relevant for our select vertical markets. For example, Webscales can benefit from Nokia's Operations Support Systems, Service Assurance to enable high-performance IT networks, and inter-data center connections; and

- assess where we are able to expand into enterprise software and IoT platforms, where our experience in providing mission-critical networks and services at scale is a powerful differentiator.

4.Create

Create new business and licensing opportunities in the consumer ecosystem

In addition to renewing existing patent licenses on favorable terms, our aim is to add new licensees from the mobile industry, and we continue to expand patent licensing into new segments, such as automotive and consumer electronics. Our brand licensing efforts are well underway—we see value creation opportunities in the mobile devices industry leveraging our strong brand. Our exclusive brand licensee for mobile phones and tablets, HMD Global, has already launched new Nokia branded feature phones and smartphones.

In addition to our licensing businesses, we intend to return to the consumer market with two select new businesses in Digital Media and Digital Health. Our current focus in the fast-growing area of VR is to expand the range of OZO cameras as part of creating an industry-leading VR ecosystem. Technology licensing and strategic partnerships will form an essential element of this work, in order to accelerate VR content creation and mass adoption.

In Digital Health, we entered the market through our acquisition of Withings, a pioneer in consumer-focused connected health devices. In the future, we see opportunities to scale globally by building on the powerful reach of the Nokia brand, expanding into corporate wellness and assessing opportunities to transition into business-to-business healthcare, in areas such as connected patient care.