

# Letter from the President and CEO

This was a year of many extraordinary and unexpected events.

Think back to the start of 2020. Few people would have anticipated that a new virus only recently identified would spread so rapidly around the world – and with such far-reaching and devastating consequences for health, economies, and life as we knew it.

Yet, few people would also have foreseen a 20 percent fall in global nitrogen dioxide levels between February and June, or an estimated 6.4 percent reduction in carbon dioxide emissions (equivalent to 2.3 billion tons) over the course of the year.

Prior to the pandemic, such dramatic falls in two of the most harmful greenhouse gases would have been thought only likely as a result of major technological breakthroughs in energy or transport. Instead, what it took was unprecedented national lockdowns, widespread closure of workplaces and schools, and an emergency brake on industrial activity and aviation.

Clearly, shutting down normal life permanently is an unsustainable solution to the sustainability crisis we face. The World Meteorological Organization also said

that any lockdown-related reduction in emissions would only be a “tiny blip” on the long-term graph, as carbon levels in the atmosphere continued to rise in 2020 but just slightly less quickly.

We need innovative new solutions if we want to achieve a sustained flattening of the curve and meet the UN Paris Agreement target of limiting the rise in global temperatures to 1.5°C by 2050. To achieve that goal, we would have to cut emissions by half every decade for the next 30 years.

The scale of that task is huge, but at Nokia we believe that the technology we create has a crucial role to play in the fight against climate change through cutting emissions and enabling smart solutions.

This year we recalibrated our own climate targets in line with the latest science and committed to cutting emissions across our business by 50 percent by 2030 compared to 2019. We have now delivered zero-emission products to over 150 customers globally. The customer base station sites we modernized in 2020 are now using 54 percent less energy on average. And, together with Elisa, we introduced the world’s first 5G liquid-cooled mobile network base station, which uses up to a third less energy and can reduce carbon dioxide emissions by up to 80 percent per site.



As well as cutting our own carbon footprint and supporting our suppliers and customers to do the same, we saw a glimpse of what a more sustainable 5G-enabled future could look like. Nokia's critical networks made possible digital healthcare, education, public services, and business for more people than ever before. Our technology helped companies to keep operating and millions of employees around the world to shift to remote working. We saw that business was not only possible but perhaps more desirable with fewer polluting car journeys and without unnecessary air travel.

At the same time, we continued to work with our customers to cut waste, improve energy efficiency, and deploy smart solutions by accelerating digitalization and automation in a range of industries, from manufacturing and mining to logistics and transport. A good example was the private 5G network we created for Lufthansa, which allowed the airline to test engine parts with customers remotely in real time using an augmented reality (AR) tool during lockdowns.

We made progress on digital inclusion by connecting the unconnected, with 6.6 billion subscriptions on our customers' radio networks worldwide by the end

of 2020. Nokia's community investment programs also helped schoolchildren in rural areas of Kenya to learn remotely during lockdown, and our ongoing partnership with UNICEF in Indonesia enabled direct healthcare support for around 2 million people at the height of the pandemic. Our COVID-19 donation fund supported hospitals, clinics, and people in need in 48 countries, through organizations such as World Vision and the International Committee of the Red Cross.

We remained committed to conducting business ethically and transparently despite the challenges created by COVID-19. We strengthened human rights protections by increasing virtual training on modern slavery and minority rights for our suppliers. We also maintained our focus on ethical business training, which more than 96 percent of our employees completed. In addition, 85 percent of our leaders completed training on navigating bias and building a more inclusive workplace.

Too often, sustainability has been an afterthought, a "nice to have." But for us, sustainable solutions are both a business opportunity and at the heart of our decision-making process. I was particularly pleased to see Nokia being ranked #4 in the Wall Street Journal's top 100 most sustainably managed companies

in the world and to be named as one of the best places to work for LGBTQ equality by the Human Rights Campaign.

We do not seek external accolades, but that recognition is an accurate reflection of our ethos and the efforts of our employees to ensure we live up to our environmental and social responsibilities.

There is much we can take pride in over the past year, detailed in this report, but there is also much work still to be done to build a cleaner, greener, and more inclusive world for everyone.

**Pekka Lundmark**  
President and CEO

 Nokia's critical networks made possible digital healthcare, education, public services, and business for more people than ever before. Our technology helped companies to keep operating and millions of employees around the world to shift to remote working.