Helping cities grow sustainably

Sustainability Report 2023

www.kone.com

Dedicated to People Flow™

KONE's elevators and escalators move

>1 BILLION

people every day

Close to

600,000

customers

Operations in

>60

countries

~30,000

suppliers

>1,600,000

equipment in KONE's maintenance base

>60,000

employees

Authorized distributors and agents in close to

100

countries

Sales

MEUR 10,952

Read more **about KONE as a company** on kone.com

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DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

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Sustainability highlights 2023

CDP 2023 'A' score for corporate sustainability leadership

EcoVadis gold medal for sustainability performance

34 best-in-class energy efficiency ISO 25745 references for our elevator and escalator platforms

Carbon-neutral manufacturing units

Forbes' 2023 Global 2000: World's Best Employers list

153 nationalities

ISO All major KONE supply units continue to hold ISO 9001 and ISO 14001 certificates

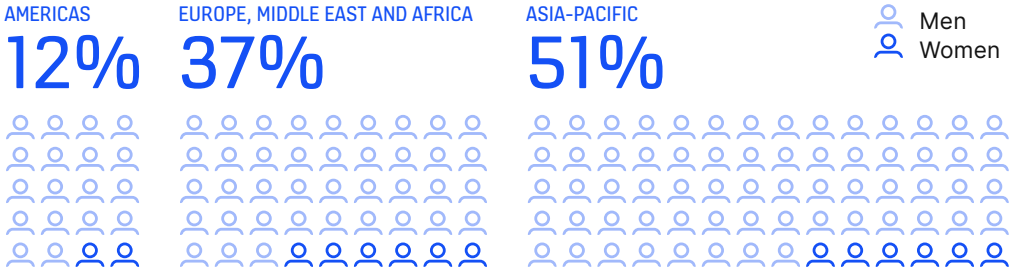
1.1 Industrial Injury Frequency Rate

Average of 33 hours on formal development and learning per employee

How KONE added economic value in 2023

ADDED VALUE MEUR 4,856

KONE employed 63,536 people



Sustainability powering KONE's new strategy

Welcome to KONE's Sustainability Report 2023. Join our new President & CEO **Philippe Delorme** and Vice Chairman of the Board **Jussi Herlin** as they discuss last year's sustainability achievements and future direction.

Winds of change blew through KONE in 2023; we underwent an operating model renewal during the first half of the year, and in the autumn our decade-long President & CEO **Henrik Ehrnrooth** decided to step down from his position. Soon after, his successor **Philippe Delorme** was appointed.

"Philippe, welcome to KONE! You've been with us since the beginning of the year, what are your first impressions?" Vice Chairman of the Board **Jussi Herlin** asks.

"Thank you, Jussi. It's been quite wonderful! During my first few months in the company, I've had the opportunity to travel and meet amazing KONE teams across the world. What immediately struck me, was the unique KONE culture and I've felt very welcome from day one," President and CEO **Philippe Delorme** says.

Building a new company strategy together

2024 marks the last year of our 'Sustainable success with customers' company strategy and the work to define our new direction has already kicked off.

"I wanted to start building our new company strategy as soon as I joined, and that's exactly what we've done. The KONE culture and long company history form a solid foundation for this work. One of our key strengths is our people; the dedicated teams across KONE. We wanted our people to engage with the strategy from the word go, and that's why we chose to invite everyone to participate in

CEO Philippe Delorme, Chairman of the Board Antti Herlin and Vice Chairman of the Board Jussi Herlin see great opportunities in digitalization for KONE, especially in services.

the development process – it's a joint effort, not a one man show," Philippe explains.

"Could you already shed some light on our new direction?," Jussi enquires.

"Naturally, many aspects are yet to be defined, but one thing is very clear. We want to continue leading in sustainability. One of the main reasons I joined KONE was the company's strong emphasis on sustainability, which resonates with my personal values," Philippe reveals.

"That's great to hear. I suppose one could say that sustainability is in our DNA at KONE. We have done sustainable business from very early on – even though it might not have been called 'sustainability' back then. We took an official stand on this by including our ambition to be 'the leader in sustainability' in our company strategy in 2008, again as a frontrunner in the industry", Jussi reminisces.

"We can already see that sustainability has become one of the key decision-making factors for our customers and we are in this business to serve our customers. So, keeping sustainability high up on the agenda is pretty much a no-brainer," Philippe states.

The launch of our new strategy is expected during the third quarter of 2024. The new six-year strategy period will enable us to better adapt to changing market conditions and geopolitical strains.

Carbon-neutral manufacturing units

Almost four years ago, in September 2020, we showed the way in sustainability in our industry by becoming the first elevator and escalator company to commit to science-based targets. Pledging to reach carbon neutral operations by 2030 was a courageous manoeuvre, all in the aid of limiting global warming to 1.5°C.

One major milestone on this journey was reached last year, 18 months ahead of schedule, when all our manufacturing units became carbon neutral at the end of June 2023. KONE has ten manufacturing units in seven countries spread across the globe, and all our factories and their adjoining warehouses have actively worked to reduce their Scope 1 & 2 emissions by 81% compared to the 2018 baseline. Although significant, this is merely a stepping stone, as ultimately, we want to cover all our manufacturing storage locations which amount to over a thousand sites.

"Manufacturing units are an integral part of our supply chain operations and carbon footprint. This achievement demonstrates, on a very practical level, our core principle of sustainability being embedded in everything we do. I am very proud of KONE for leading the industry towards carbon neutrality on that front," Philippe Delorme says.

"Yes, a very important milestone reached, and it goes to show that our hard work around sustainability is paying off," Jussi agrees.

Last year, we were also awarded a position on the CDP 2023 Supplier Engagement Rating Leaderboard, among the highest-performing 450 companies worldwide. The assessment is based on performance for governance, targets, Scope 3 emissions, as well as value chain engagement.

The recognition follows our placement on CDP's prestigious Climate 'A list' for 2023. In addition, as the only elevator and escalator company, KONE has been ranked 55th on the Corporate Knights 2024 Clean200 list for publicly traded companies, leading clean economy solutions.

> "The future is smart and connected. I am really excited about the opportunities that lie in digitalization for us, as well as our customers.
>
> – Philippe Delorme, President & CEO

Jussi Herlin (second from left) and Philippe Delorme (third from left) celebrated the year of the Dragon together with former CEO Henrik Ehrnrooth (left), Executive Vice President for Greater China Joe Bao (right) and KONE's Greater China team.

Let's modernize more

Sustainable living and commuting are driven by people wanting to live in cities. For our industry, the biggest opportunity in the coming years lies in modernization. Even though urbanization with new builds continues across the globe, modernizing and repurposing buildings is not only a growing trend, but a crucial move in order to address the climate emergency and reach net zero emissions.

The future cities have already been built; around 80% of the buildings we have today will still exist in 2050. Since those buildings have already consumed significant amounts of embodied energy during their original construction, renovation rather than demolition and building anew is usually the lower-emission choice.

"Modernizing equipment is a great way to decrease energy consumption. In fact, we can reduce energy consumption by up to 70% through modernization, and a KONE elevator today is up to 90% more energy-efficient than its 1990s counterpart. Currently only about a quarter of our installed elevator base is equipped with regenerative drives or other energy-saving features, so we have a real opportunity to make a big difference here," Philippe explains.

"We've been innovators for over 100 years. Already in the 1990s, sustainability was at the core of our R&D – a great example of this is the EcoDisc introduced in 1996, revolutionizing the energy consumption of an elevator. And now, almost 30 years later, KONE continues to prioritize sustainability in all our innovations, whether they be used for new builds or in modernizing equipment," Jussi says.

On top of modernization, regular maintenance will lengthen equipment lifecycle and also reduce emissions. Digitally enabled products and services further enhance our ability to improve the energy efficiency of our products.

Unleashing our digital potential

"The future is smart and connected. I am really excited about the opportunities that lie in digitalization for us, as well as our customers," Philippe envisions.

He continues: "These days, elevators can optimize energy use based on factors like occupancy and time of day. Advanced algorithms can also group passengers going to the same floor, reducing the number of stops and minimizing operation time."

With 24/7 Connected Services, we can follow the equipment performance remotely around the clock and identify problems and detect any technical issues before they even arise. In many instances, our customers may not be aware of any issues until they have already been resolved, and a report with full callout details dispatched.

"This kind of service gives our customers peace of mind and reassurance that they are in good hands with KONE. To me, it is clear that connecting all our equipment with remote monitoring is the way forward and brings the biggest benefit to all," Philippe remarks.

Digital advancements don't only make our customers' and passengers' lives easier, they can also be used behind the scenes to help with our ambitions in circular economy. We have already been working with some customers on finding new circular models.

"When dismantling equipment on a modernization site, there is a huge amount of material that can be repurposed in many ways. The digital realm can help us in leveraging automation, data sets, and finding quick connections between buyers and sellers," Philippe concludes.

Diverse way forward

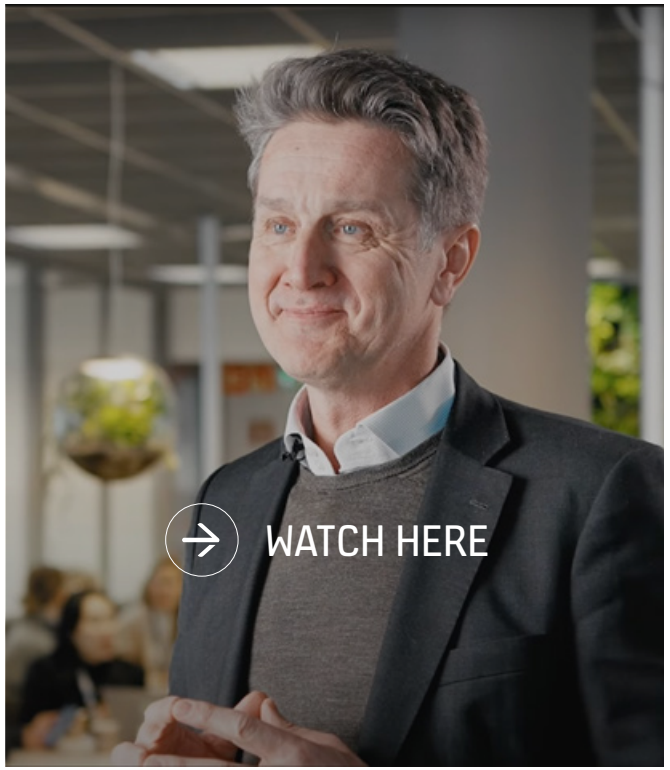
At KONE, we've set ambitious diversity, equity and inclusion (DEI) goals and follow them from several aspects, like the percentage of director-level positions held by women, hiring people from outside our industry, and increasing cultural diversity in our global business units and functions.

"I'm very happy to see our progress, for example in increasing the share of women at director level, on our way to reach our goal of 35% by 2030. But this is not nearly enough, and we must continue setting the bar high – out of the world's population, women account for approximately half. So why wouldn't we aim for that too?" Philippe states.

We move over a billion people every day. That makes for a very diverse group of people, just like our customers across the globe. At the same time, increasing diversity, equity and inclusion also allows us to offer our employees a more innovative, competitive, and rewarding workplace.

"Everyone has a role to play in increasing DEI. That's where our employee resource groups are also doing a great job. At the moment we have two global groups: one for women and their allies and the other for LGBTIQ+ inclusion, and several local chapters. These employee-led groups encourage our people around the world to build communities around common topics, helping to foster a more inclusive environment," Philippe says and concludes:

"We remain committed and strive towards a truly diverse and inclusive workplace. It's a marathon without a finish line, but we will continue working on it every day together."



"Diversity makes us unique, inclusion makes us powerful." Watch this video as CEO Philippe Delorme shares his insights on diversity, equity and inclusion on YouTube.

ARTICLE

Building for the future

It's not too late to fight back against the climate emergency by creating livable and sustainable cities for the future. The answer lies in modernizing and repurposing our existing buildings, and designing urban areas that adapt to people's changing needs.

The year is 2040, and the urban environment is a tale of two cities. Both are mostly high-rise communities, growing fast and densely populated, but they represent two very different realities from a climate and sustainability perspective.

KONE studies urban megatrends and uses anonymized data on how people move around the built environment. This is done in order to understand how to make cities livable for people, both for today and for future generations. Two extreme scenarios, depicting different paths for cities, have emerged from KONE's most recent research.

Let's call the first city the **Gray Scenario**. It is struggling and sprawling. It is hungry for energy and dirty with emissions.

People live in a treeless and gray environment, an unmitigated urban heat island of food deserts and flash floods. They are divided by uneven opportunities, with residents of luxury air-conditioned condos kept apart from tenants in badly clad tenements that swing from sweaty to shivering, season to season. Gated communities separate the haves from the have-nots.

Meanwhile, the city in the **Green Scenario** is thriving and resilient. It is a low-carbon, highly efficient haven of clean power.

People live in a biodiverse and green city that is climate-adapted, smog-free, and walkable, with living walls and vertical farms. Residents are brought together in mixed-use developments with local shops and diverse neighborhood networks. Social and physical mobility are prized, and the city's smart tech is easy to use and affordable, making the metropolis more inclusive and connected.

How can we make sure we avoid the Gray Scenario?

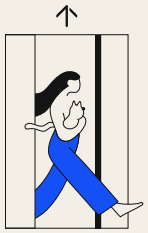
One way is to focus on modernizing the buildings we already have, to create neighborhoods that adapt to the individual needs of residents. We also have an opportunity to help old, charming buildings stand the test of time, while retaining their unique character.

"Which of the two extreme city scenarios we end up with depends in part on trends such as urbanization and demographic development," said **Amy Chen**, KONE's Chief Innovation Officer. "Other key factors are our willingness to combat climate change, and how we apply technological breakthroughs such as generative AI, robotics, and advances in sustainable, eco-efficient construction and renovation. In a climate-aware, post-COVID-19 world, with an aging and tech-savvy population, the focus is now on the needs of connected micro-communities within livable cities."

For people to live in cities where their primary wants and needs can be met on foot or bike, within a short distance of their residence, intimate urban neighborhoods must be created. The local community is the ideal planning unit for a city, which will, after all, be composed of multiple communities. Data, including information from KONE elevators, can provide insights into people's movement in cities, and their changing behavior and needs. These insights can also help find new ways to use existing buildings, expanding their lifetime by, for instance, repurposing office buildings for mixed use.

Residential and mixed-use buildings occupy a large proportion of the square footage of cities around the globe. The more these buildings are connected and utilize insights from data, the closer cities will get to being inclusive of the needs of residents, including accommodating physical disabilities, and reducing their carbon footprints. Advances in elevator technology are already making buildings more suitable for the ways in which people really live their lives.

Breakthrough people and material flow technology



Modular elevators:

In London, KONE has co-innovated a concept where elements of elevators are pre-fabricated off-site, cutting installation down to hours rather than weeks. In Shanghai, city planners have retrofitted four-story residential buildings mostly inhabited by aging tenants with connected, digital-ready elevators.

Delivery robots:

KONE carried out a pilot project on a mixed-use building in Helsinki, with living accommodation above a shopping center. Residents placed their grocery orders via an app, then a delivery robot would automatically take the right elevator and bring the goods to them.

Wayfinding

The BlindSquare wayfinding app, which connects to residential building elevators, uses GPS to help blind and partially sighted people move around the city and explore their interests.

"It will take a collective effort to build the cities of our dreams," said Chen. "There is a whole ecosystem of smart devices and digital collaborators out there, plus stakeholders from city planners and property developers, through civil society, to policymakers in government. The more partners we have, the more we can connect, the better it is for people."

People-first cities also need to be sustainable, which starts with refurbishing existing buildings – for example,

> "Eco-efficient buildings can help meet climate targets.

retrofitting elevators. Often there is no need to resort to economically and environmentally costly demolition of concrete or steel, said **Minna Pirkkanen**, Head of Modernization Offering at KONE. Instead, it's easier to upgrade the vital functions within the elevator. "With a partial renovation, we can often retain the essential structure," she said. This optimizes reusability and promotes circularity.

85–95% of the buildings in Europe will still be standing in 2050, the European Commission estimates. In terms of carbon footprint, the effects of an overhaul can be estimated with a high degree of accuracy. The latest performance data and modelling capabilities, simulation software, and digital-twin technology will all help measure and map the gains and savings to be made. In the future, it should be possible to combine data from multiple systems inside a building in order to create a picture of its overall eco-efficiency.

"Modernizing an elevator, in an existing building, means we can reduce energy consumption by up to 70%, and a KONE elevator today is up to 90% more energy-efficient than its 1990s counterpart. This brings big cuts in CO_2, and by extending the life-expectancy, the embodied carbon remains locked away for longer. It is a win-win for the planet," Pirkkanen said.

Additional quantifiable benefits for residents include reductions in noise and vibration, plus options such as smartphone elevator calls to cut waiting times.

In the coming decades, buildings will be constructed, and in some cases retrofitted, with even lighter materials that are designed for carbon neutrality. Canary Wharf in London, which consists of commercial, retail, and residential buildings, has committed to reducing the embodied carbon in all new developments and refurbishments in the district as a crucial step to achieving Net-Zero Carbon by 2030.

Beyond the here and now, though, there is a lot to do to arrive at a unified and inclusive city. "This is about making choices that improve the quality of life of people in our cities," said Pirkkanen. "But we can't do this at any cost — the planet must be able to carry us. At KONE we anticipate future trends and team up with our customers and partners to create solutions that improve the flow of urban life in a sustainable way."

This article was created by Insider Studios with KONE.

> "Energy efficiency gains can lead to lower operating costs, saving on service charges for building residents. There is also less downtime, with predictive maintenance using remote monitoring.

ARTICLE

Designing and adapting the stations of the future

The way we use public transport is changing – our stations must keep up

What if the elevators at your metro station knew where you were going and guided you to your departure point? Ensuring sustainable mobility for our future cities starts with envisioning a passenger experience that's truly first class. That's why KONE has teamed up with the International Association of Public Transport (UITP) to identify ways to design and adapt stations that meet the needs and challenges of tomorrow.

Imagine approaching a sleek, spacious, transport hub that feels more like a futuristic airport than a charmless subway stop. An automated valet parks your e-scooter or EV at the charging station as real-time displays inform you of any changes to your schedule. Once inside, you're greeted by smart elevators – they know where you're going and guide you seamlessly to your departure point, while sustainable energy solutions power the entire complex.

It's not just a utopian fantasy. In fact, envisioning the station of the future is a critical step in ensuring public transport hubs serve our needs into the future, according to **Cãlin Hera**, Global Business Development Manager, Major Projects, KONE.

"We know that public transport is increasingly critical for the future of cities. Yet we realized that while there is a lot of focus on building better vehicles, research and design seems lacking when it comes to stations," says Hera. "We wanted to understand the latest trends, needs and passenger expectations around stations – and how the pandemic has changed these expectations."

As a result, KONE and the International Association of Public Transport (UITP) joined forces to produce the Stations of the Future report, taking a post-pandemic look at the emerging societal, technological, and economic challenges facing station design.

A follow-up report offers solutions and best-practice examples of station design, facilities and digital tools that will allow the public transport networks to meet changing needs in future. Here the emphasis is not solely on emerging technologies, such as artificial-intelligence-based digital tools – many of the solutions are already in place in some transport systems, and could reap benefits elsewhere by being more widely adopted.

> We have everything it takes to build smarter, more sustainable cities for future generations. We just need to envisage how all these elements play together.

Accessibility is at the heart of designing future-proof stations.

> The passenger experience should be smooth, safe and accessible for all.

Designing stations starts with a seamless passenger experience

Society is facing increasing urbanization and population growth, and as we age, well-designed public transportation becomes increasingly critical to ensuring the smooth flow of people. With this comes the need to balance the needs of two key demographics when designing for future cities: Digitally-savvy Gen Z, and the older "silver demographic". The former have high expectations when it comes to tech-based solutions and the latter are commonly more car-dependent and less comfortable with digital solutions.

"The passenger experience should be smooth, safe and accessible for all, which means embracing both hi-tech and so-called "high-touch" approaches," explains Hera. "In practice this may mean things like having both large screen displays as well as personalized journey tracking on smartphones, or having the option of both automated and human presences on platforms or ticketing desks."

The challenge is for services to stay accessible, yet also inviting to younger demographics. If this challenge is met, public transport will retain popularity, also entrenching sustainable mobility for future silver generations.

"Stations are vital places to attract more users towards public transport – they quite literally can be the starting point to more sustainable mobility," says **Daria Kuzmina**, Rail Manager at UITP.

Enhancing customer journeys with technology and AI

No matter the generation, digitalization is a game changer, with wireless internet and smartphones meaning public transport users expect almost immediate access to real-time journey information. Naturally, this presents challenges, yet it also brings untapped possibilities for streamlining passenger journeys, for example, through integrating private first and last mile services such as ride-hailing.

Also, the rapid uptake of automation and AI could see physical services such as ticketing desks reduced, freeing up staff to provide more personalized "high-touch" tasks within a station. And while technological innovations are exciting, not all solutions require endless imagination.

"Elevators are needed in many existing environments and much is already being done to create more accessible stations. Many stations in the world are not step-free, so practical solutions such as KONE's incline lifts make a huge difference," says Hera. "We're also constantly implementing and developing other accessible solutions such as voice interfaces and integrated applications for the visually impaired."

For public transport hubs, the technological possibilities are endless, yet stations must remain attractive to many, while also servicing diverse expectations. Ensuring viability also means attracting both the silver economy and Gen Z passengers.

The economics of sustainable mobility – future-proofing old stations

Lastly, the report highlights how societal, environmental, and technological considerations dovetail with sound economics. Soaring energy prices have wreaked worldwide disruption, giving yet another reason for designing more environmentally sustainable green transit hubs, as well as upgrading, rather than rebuilding, station facilities.

Indeed, Hera points out that the vast majority of our future stations are actually the stations of the present. "To be viable we need to upgrade them to be adaptable and appealing," Hera says, flagging that smart and modular solutions are likely to be part of this puzzle moving forward.

The labor scarcity felt so pointedly during the pandemic was also identified as an ongoing economic challenge – again, one which is potentially addressed by AI and automation. With every challenge myriad opportunities also arise and it becomes increasingly important to keep abreast of what's possible. As such, the Stations of the Future working group also takes a deeper dive into design and planning opportunities as we move people into an urbanized future.

"UITP and KONE provide important recommendations on how stations can get ready for the future on multiple aspects such as accessibility, sustainability and urban planning and design, and why it is important to pay special attention to its design and governance," says Kuzmina.

For KONE, it's clear that all roads – or rail lines – lead to the continued development of smart, integrated solutions alongside stakeholders who are energized by a similar vision for sustainable mobility.

"Public transport is an ecosystem of players and priorities. We have everything it takes to build smarter, more sustainable cities for future generations. We just need to envisage how all these elements play together," concludes Hera.