



# Productivity and Sustainability for high-rise construction in Europe

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Dedicated to  
People Flow™

# Productivity and Sustainability for high-rise construction in Europe

## Agenda

- Who we are
- High-Rise Buildings and the Nordics
- Trends in Construction
- Productivity & Sustainability
- Q&A

1 FEBRUARY 2024





Who we are



Over a century in business

- KONE is a global leader in the elevator and escalator industry.
- We offer innovative and sustainable solutions, ensure the safety and availability of equipment in operation and offer modernization solutions for aging equipment
- Founded in Finland in 1910
- Over 60,000 employees
- Over 500,000 customers
- Net sales EUR 11.0 billion in 2023
- Listed on the NASDAQ Helsinki since 1967

Our vision

KONE creates the best People Flow experience

# High-Rise Buildings and the Nordics & Baltics



# Tall buildings in the Nordics - examples



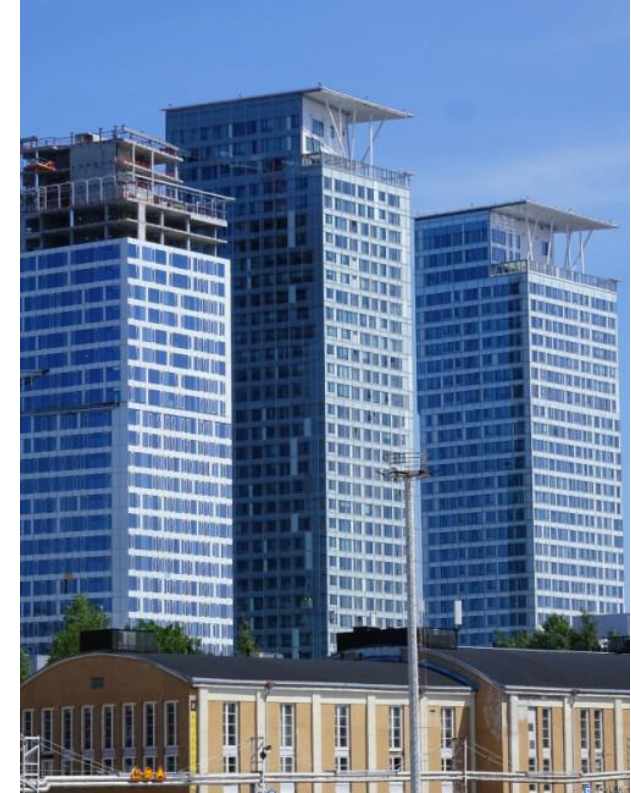
**Mindet 6**



**Karlatornet**



**Turning Torso**



**Majakka**

# Perspective of tall, depends on location and context

## CTBUH height criteria

- Megatall >600 m (3)
- Supertall >300 m (233)
- Tall 300m <300 m
- A 14-story building may not be considered a tall building in a high-rise city such as Chicago or Shanghai, but in many European cities this may be distinctly taller than the urban norm.



## Nordics and Baltics High-Rise buildings

- 38 buildings completed over 100m
- 17 under construction
- FIN: Majakka 132 m 2019 - R
- SWE: Karlatornet 245 m 2024 - M
- DK: Mindet 6 144 m 2025 - M
- NO: Radisson Blu 117 m 1990 - H
- LT: Europe Tower 129 m 2004 - O

**Trends in Nordics and Baltics is also to build taller as cities are growing  
This is a general trend in Europe also in non-capital cities**

# Trends in Construction



# Three strong megatrends shaping our industries



## Urbanization

The world's cities are continuing to grow and there is an increasing need to modernize existing buildings.

**Demand for housing  
and infrastructure**



## Sustainability

Climate change is the biggest challenge of our lifetime.

There is increasing attention to health and well-being and growing expectations around human rights, diversity & inclusion.

**Demand for resource efficiency  
and carbon footprint reduction**



## Technology & Digitalization

Technology provides tools and systems to resolve many of the challenges brought by urbanization and climate change.

**Technology enables  
productivity improvements**

# Ongoing challenges in the construction industry drives the requirement for productivity improvements

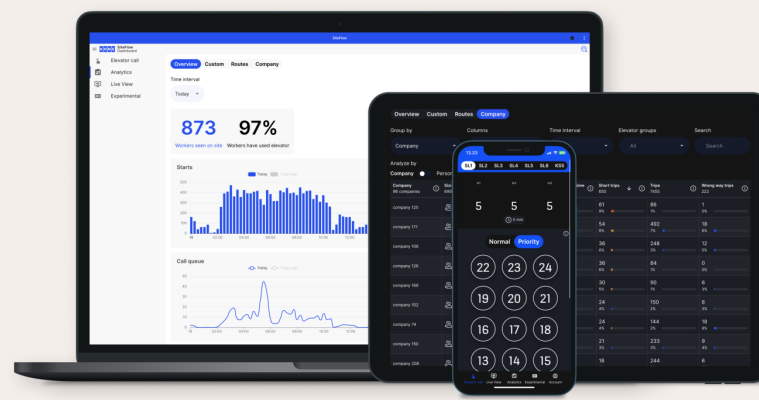
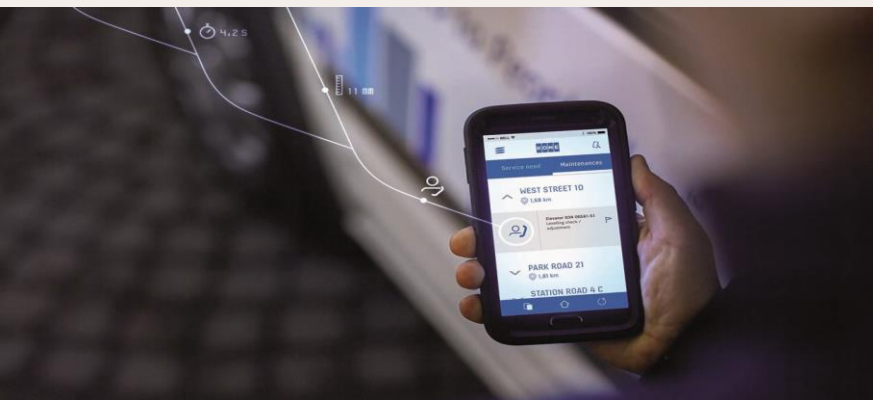
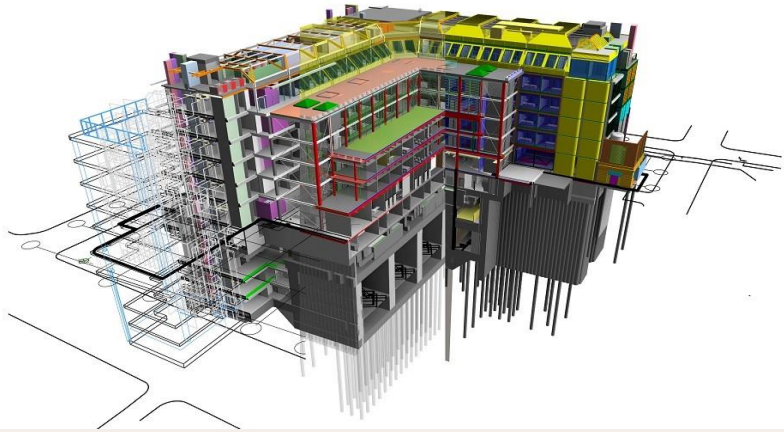
## Challenges in the buildings industry

- Reduction of embodied carbon & waste
- Cost challenges & cost to build
- Labour shortage and cost of labour
- Cost of construction material and services
- Cost of financing
- Supply chain and logistics disruption
- Changing codes & regulations
- ....

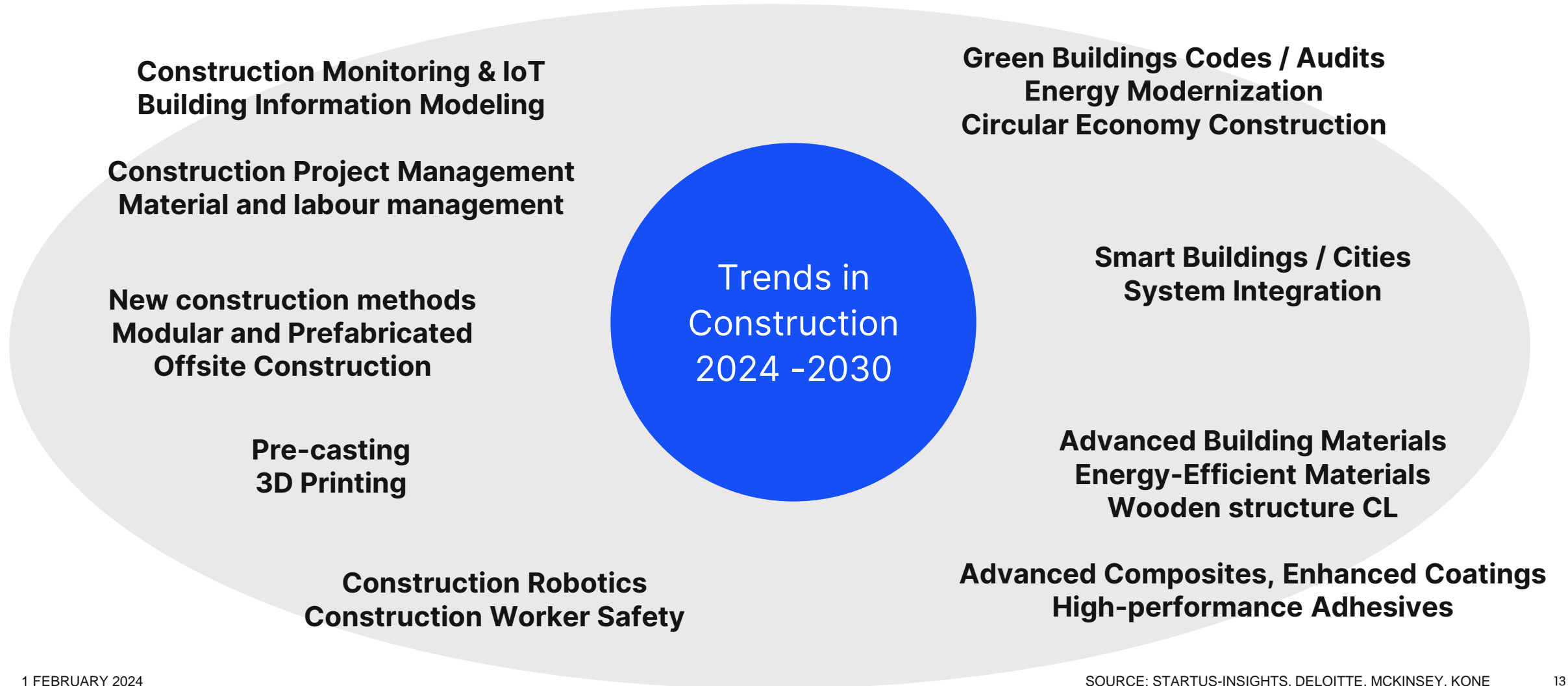
## Requirements for our industry

1. Necessity to balance sustainability and efficiency
2. Application of new solutions to improve productivity in the design, build & operate environment





# A massive opportunity with technology to drive productivity



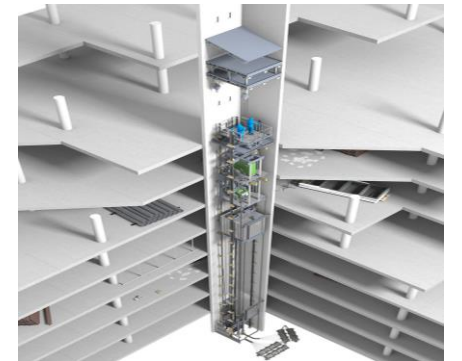
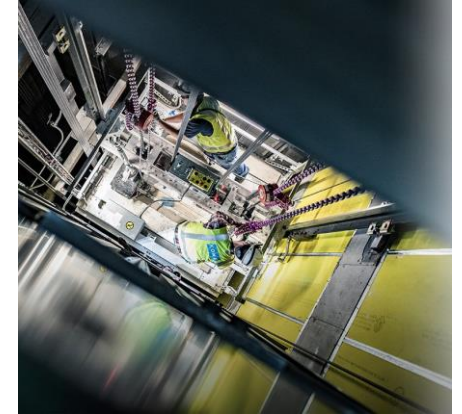
# Productivity and Sustainability for high-rise construction



# Vertical transportation system provide productivity and energy efficiency already during construction

Where can KONE help to improve construction productivity and achieve sustainability objectives

- Design & planning support
  - BIM models (LOD 200/400)
  - People Flow & traffic analysis
  - Energy, sustainability and life cycle studies for VT system
  - Documentation of energy & green building credits
  - Material and package certifications
- Construction time use elevators (CTU)
  - KONE JumpLift for use of elevators while shafts are under construction
  - Site logistics with KONE SiteFlow
  - any many more



# Construction time use of elevators

**CTU:** Completed elevators are used for construction

**JumpLift:** Elevator uses temporary machine room during construction.

**Site Flow:** Optimizing planning and operations of CTUs for people and assets

## Benefits:

- Save time and costs with highly efficient transportation
- Building facade can be closed earlier as External Hoists can be removed
- Safer than external hoists and no risks with weather
- Uninterrupted people and material flow, and maximum accessibility and safety on site with predictive maintenance during construction.



# KONE JumpLift solutions

- Elevator available for partial travel heights months earlier
- The elevator grows with the building, and installation of upper sections can be done simultaneously with the lower section elevator running.

- 6 different KONE JumpLift solutions

JL200/400/800: optimized for mid to tall buildings

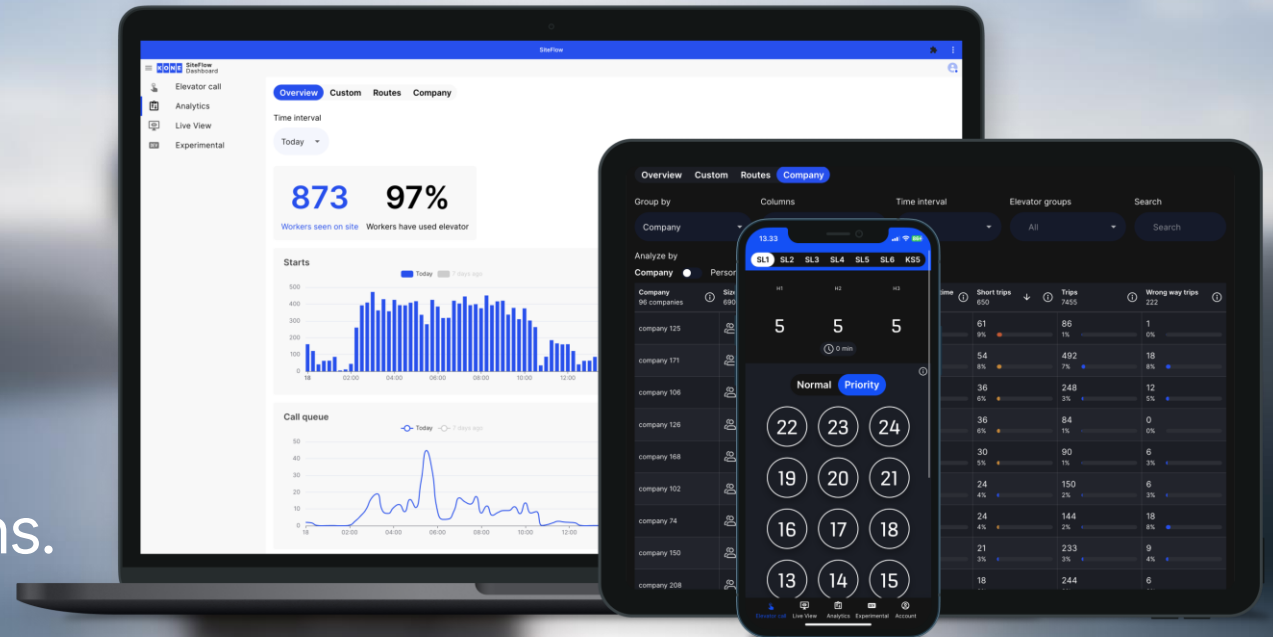
JL1000/2000: for tall buildings and heavier loads





# KONE SiteFlow

Solve day-to-day logistics challenges immediately on site with practical tools that give real-time control over how a construction time use elevator functions.



Measurement and control of CTU usage enables productivity

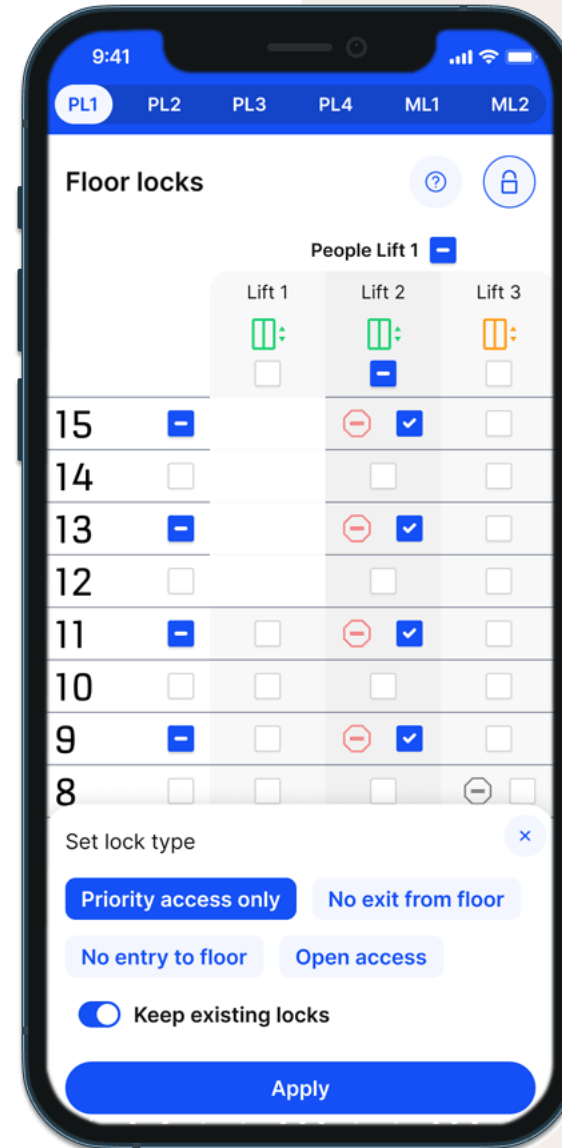
# Control of CTU elevators

Ability to restrict elevator access to specific floors

Save time and avoid costly manual interventions.

## Find things faster

See the precise location of assets on work site at all times. Save time by eliminating time-consuming searches for equipment and important tools. (RFID tag)



*"An installer used to visit the site to manually lock and unlock each floor. Now, we can handle it ourselves"*

Logistic Lead

*"We used to spend hours each week searching for pump trucks on different floors"*

Logistic Manager



# Visio Building, Helsinki

*#Built with SiteFlow*

Target of saved days:

2

Single day delay cost at the site:

EUR 50,000

Length of the project:

12 months

Number of floors:

24

Completion in

2022

[Visio - The Skyscraper Center](#)





Thank You!

QUESTIONS **Q** & **A** ANSWERS



Mark your calendar and plan to join us ...

The logo for the CTBUH 2024 International Conference is a blue rectangle containing white text. The text reads 'CTBUH 2024' in a large, bold, sans-serif font, followed by 'INTERNATIONAL CONFERENCE' in a smaller, all-caps, sans-serif font. Below this, a thin white horizontal line is present, and then 'London & Paris • 23-27 September' in a smaller, sans-serif font.

**CTBUH 2024**  
INTERNATIONAL CONFERENCE  
London & Paris • 23-27 September

[CTBUH 2024 International Conference](#)

**23-27 Sep 2024, London & Paris**

**New or Renew: Addressing the Density Dilemma**

The logo for the Council on Tall Buildings and Urban Habitat features a white silhouette of a city skyline with various skyscrapers of different heights. Below the skyline, the text 'Council on Tall Buildings and Urban Habitat' is written in a white, sans-serif font.

**Council on Tall Buildings and Urban Habitat**

[CTBUH 2024 Europe Conference](#)

**18-19 Apr 2024, Istanbul**

**Future-Fit Cities: Safer, Adaptive Density in a Changing Era**

The KONE team will be present at both events



CUSTOMER



COLLABORATION

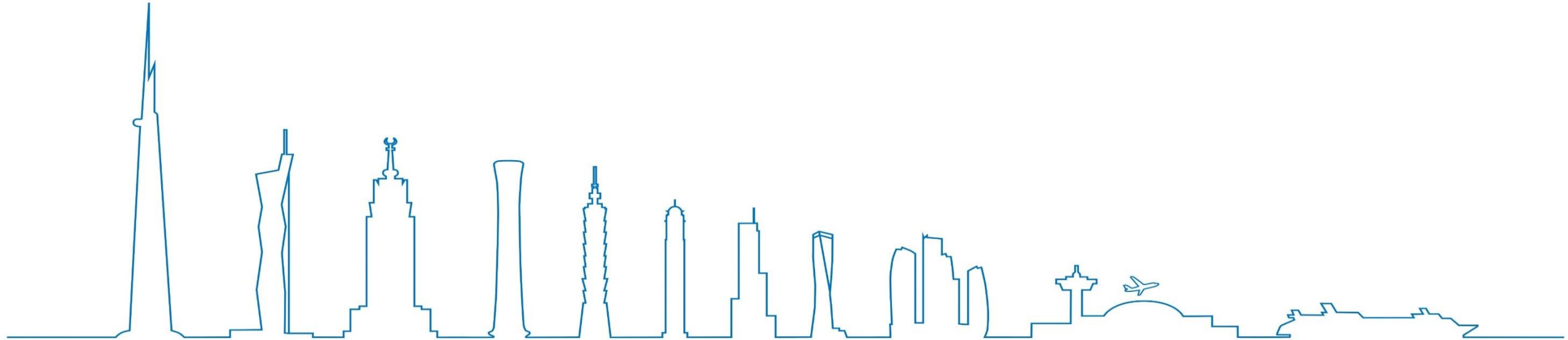


COURAGE



CARE

Dedicated to People Flow™





# CONTACT

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# Company Information - KONE Corporation



## **KONE Corp.**

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[www.kone.com](http://www.kone.com)

<https://www.kone-major-projects.com>

At **KONE**, our mission is to improve the flow of urban life.

As a global leader in the elevator and escalator industry, KONE provides elevators, escalators and automatic building doors, as well as solutions for maintenance and modernization to add value to buildings throughout their life cycle.

Through more effective People Flow®, we make people's journeys safe, convenient and reliable, in taller, smarter buildings. In 2023, KONE had annual net sales of EUR 11 billion and at the end of the year approximately 60,000 employees. KONE class B shares are listed on the Nasdaq Helsinki Ltd. in Finland

**Major Projects** is KONE's international unit dedicated to its customers' most demanding large and complex projects like high-rise buildings, airports, metro systems, large medical facilities, stadiums or marine cruise ships. KONE Major Projects teams global and local are working closely with their customers and industry partners like developers, architects, planners, construction companies and facility management companies.