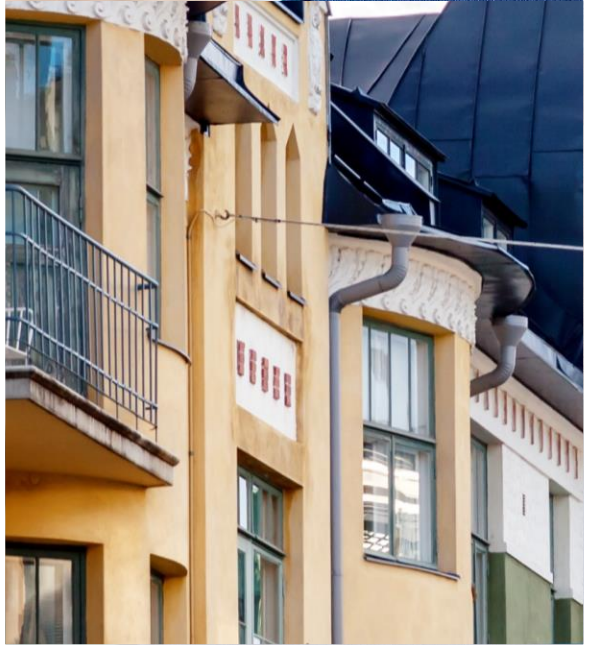
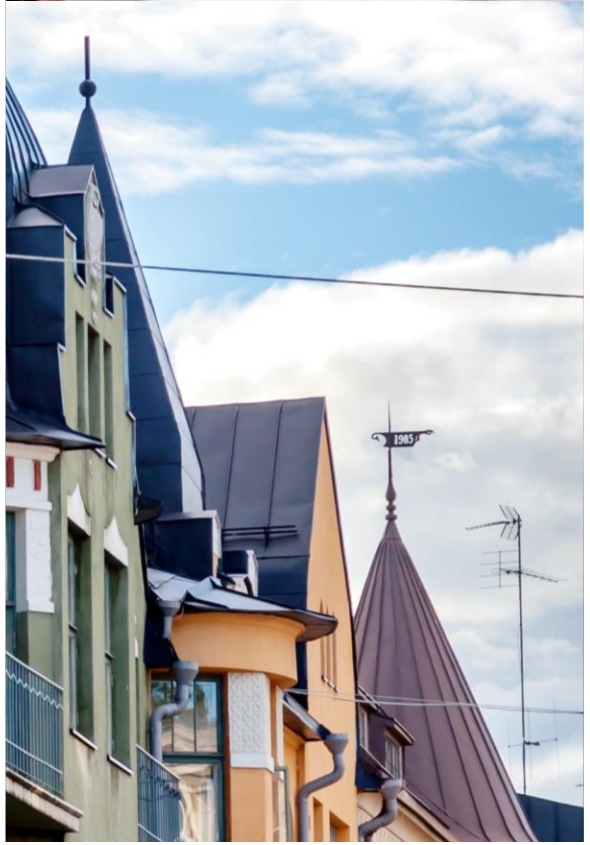




Research, Development and Innovation

Ecosystem program 2025-2029

KONE Renaissance

Co-funded by Business Finland Veturi initiative

Tomorrow's cities begin with today's buildings.

Dedicated to
People Flow™

Facing the future cities

2024

40%

of global energy related ghg emissions come from buildings.

2050

80%

of the buildings today will still exist in 2050.

6 BILLION

people will be living in cities.

ZERO

GHG emissions.

KONE Renaissance

KONE has launched a 5-year innovation, research and development program with ecosystem partners to transform the building sector by tackling the challenges to adapt, digitalize and decarbonize existing buildings.

In the Renaissance program, KONE is advancing research and development in data and AI-driven building lifecycle management, sustainable materials, and next-generation retrofit processes. Together with our ecosystem partners, the program brings innovative digital and sustainable retrofit solutions to the built environment, grasping the multi-billion euros business opportunity in modernization market and real estate.

KONE Renaissance impact

FROM

High-consumption living

High energy bill

High embedded carbon

Limited optimization

Many hassles, many service providers

Limited investments, lots of disruptions

TO

Low-carbon quality living

Net zero energy

Net zero materials

Data-driven building-level optimization

Digital and automated maintenance

New business models, adaptability & delivery

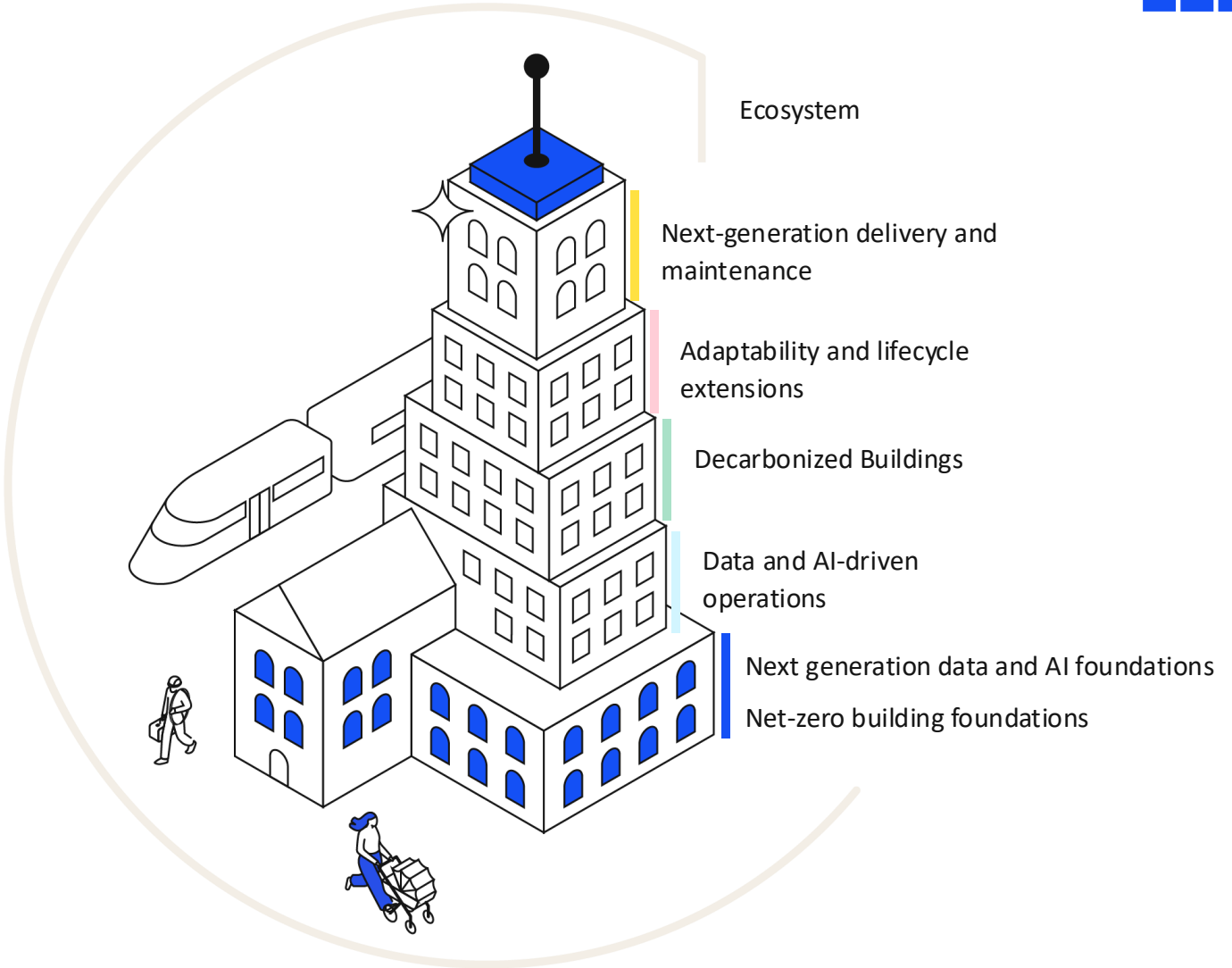
KONE Renaissance

Mission: Total revival of existing buildings for low-emission living and working by 2030.

Duration: 1.3.2025-31.12.2029

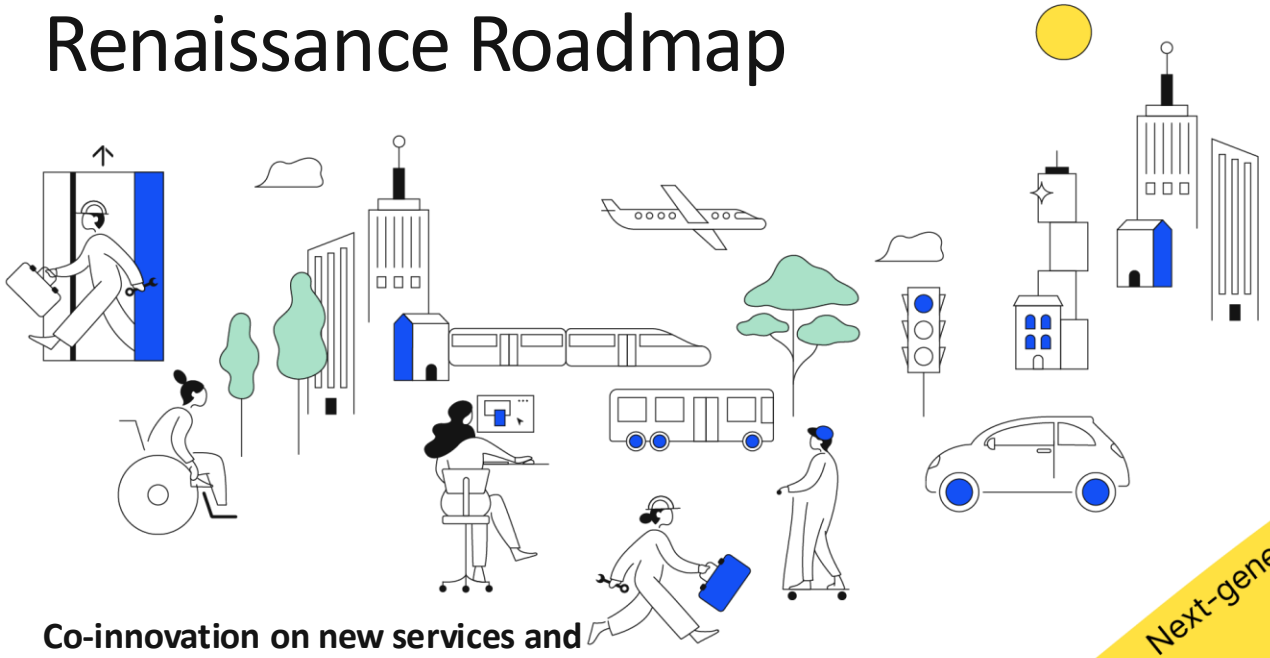
A 5-year RDI ecosystem program co-funded by Business Finland Veturi initiative

KONE to act as an innovative leading company driving RDI initiatives and the wider construction and real estate sector forward in a Renaissance ecosystem hub.



KONE Renaissance program focus areas

Renaissance Roadmap



Co-innovation on new services and solutions

Next-generation delivery and maintenance

Adaptability and lifecycle extensions

Decarbonized buildings

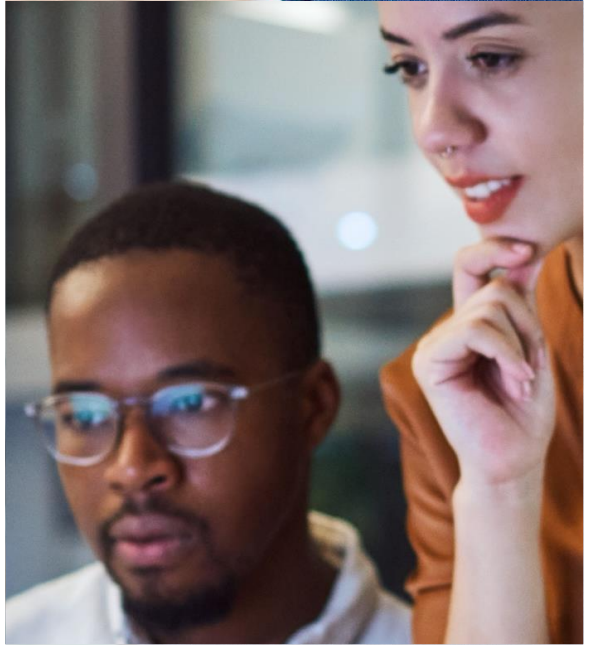
Data and AI-driven operations

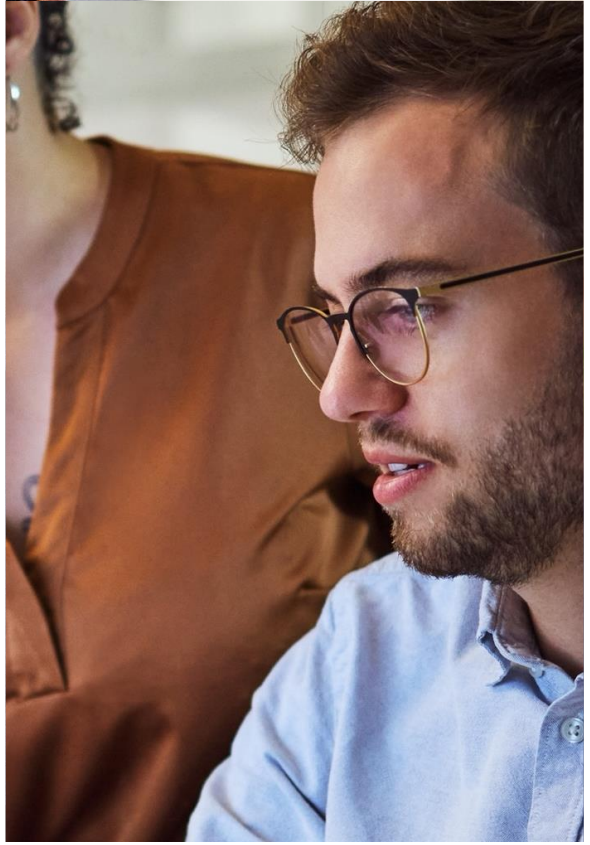
Research on AI and climate technology

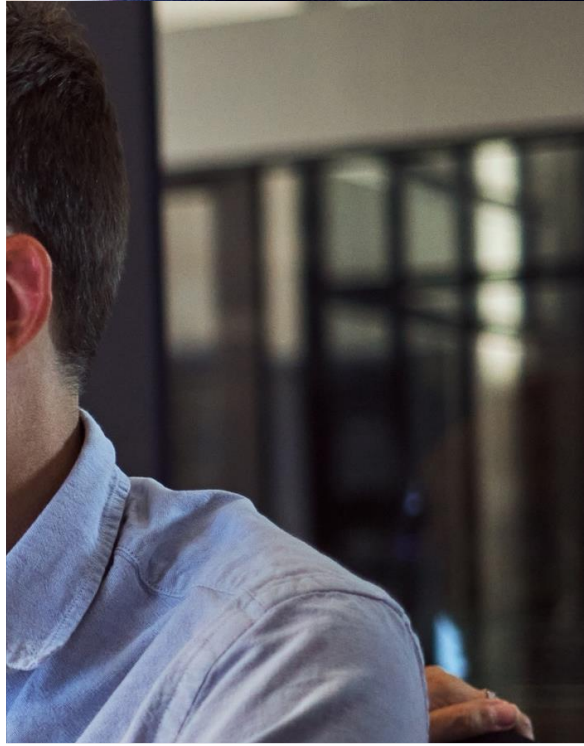
Net-zero building foundations

Next-generation data and AI foundations

2025 **2026** **2027** **2028** **2029**







Data and AI-driven operations

Develop data and AI-driven solutions for construction and renovation workflows to improve building lifecycle management and modernization processes. Our goals are to:

- Standardize, and provide data for use in creating digital solutions for the built environment
- Develop scalable services using AI capabilities needed for sustainable urban development
- Accelerate delivery of the solutions with new capabilities and applications

LEADS:

Kaisa Rommel & Mikko Mattila

Dedicated to People Flow™

Data and AI-driven operations

Re-usable data products

How can we improve data quality with AI-enabled technologies to strengthen the foundations?

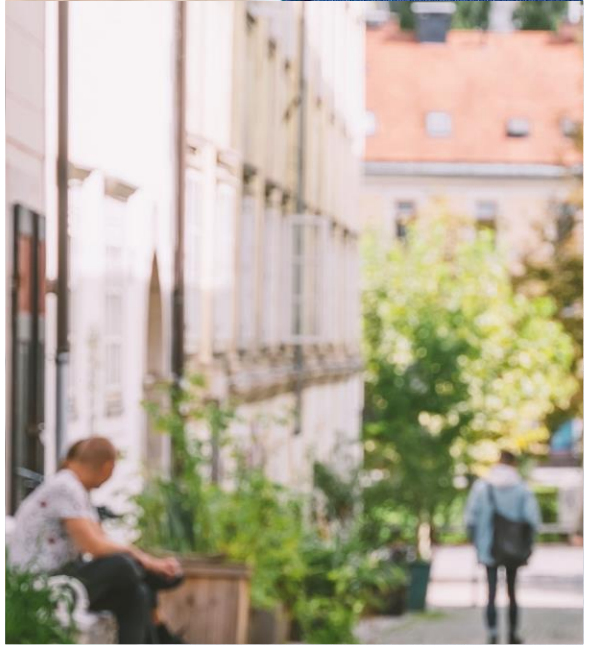
What are the re-usable data products that can be utilized to accelerate digital innovation?

GenAI innovations

How to develop new platforms and GenAI-based solutions to scale and speed up digital innovations?

Simulation competence development

How can we leverage analytics and simulation technologies to create fully digital test environment for assessing and predicting equipment lifecycles?



Decarbonized buildings

Drive sustainable and digital innovations to reach net-zero and circularity targets with high customer value impact. We are looking forward to:

- Researching, prototyping and scaling new sustainable materials
- Finding solutions to further reduce elevators and escalators lifetime energy consumption
- Enabling holistic building optimization with elevator data integrations to smart building systems

LEADS:

Janne Öfversten & Satu Virkkunen

Dedicated to People Flow™

Decarbonized buildings

Net-zero materials

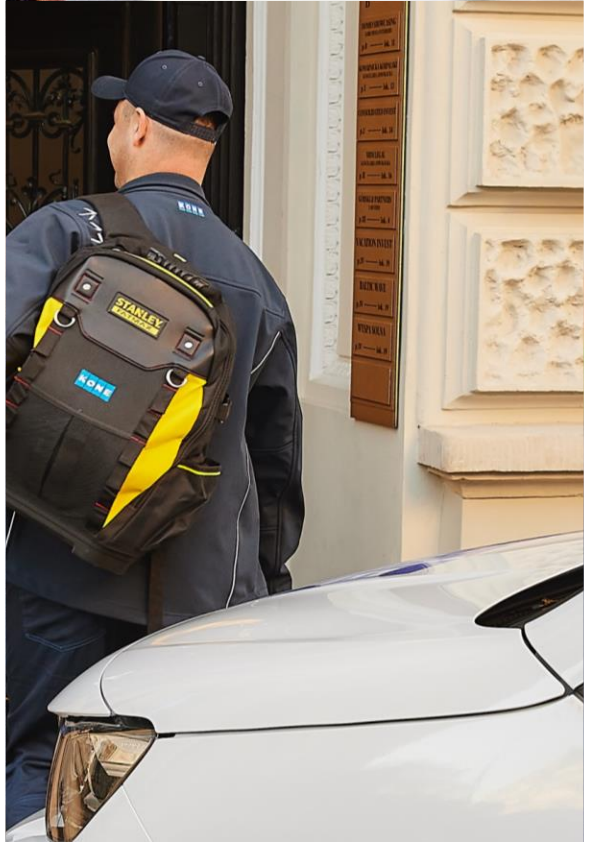
What are the new material innovations to replace existing materials and reduce embodied carbon emissions?

Circularity

What are the circular solutions to utilize and preserve existing materials and components in buildings to industrial volumes?

Net-zero for building energy

What are the innovative technologies to reduce buildings lifetime energy consumption and optimize overall energy use together with building owners and developers?



Adaptability and lifecycle extensions

Develop sustainable upgrades and extend building lifespans through novel modernization solutions and processes. We aim at:

- Automating inefficient workflows with AI-based tools and digital solutions to shorten delivery times and reduce costs
- Developing flexible and modular modernization solutions that enable phased upgrades with minimal disruptions in most sustainable manner

LEADS:

Pekka Perunka & Antti Perko

Dedicated to
People Flow™

Adaptability and lifecycle extensions

Proactive lifecycle management and new business models

How to find optimal strategies for equipment lifecycle and upgrade planning?

How to develop and adopt business models that optimize for lifecycle value?

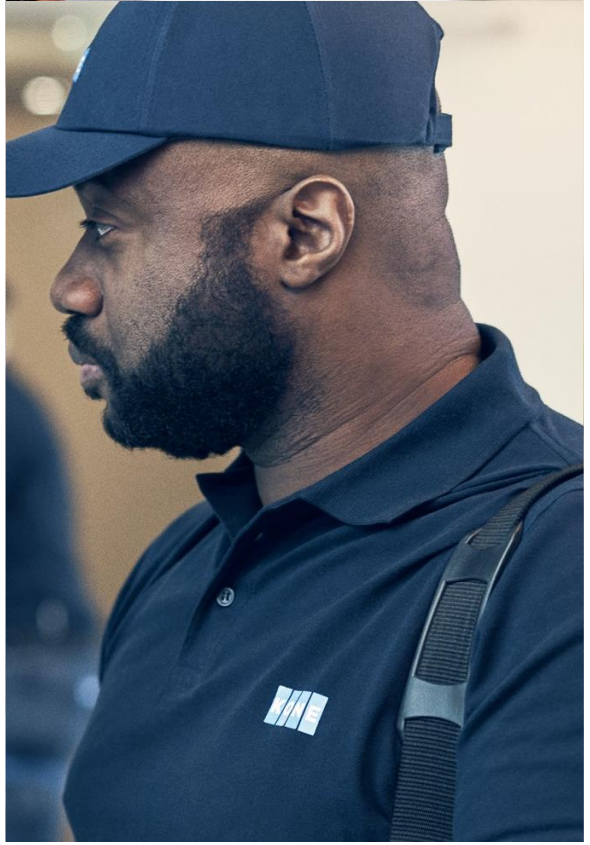
Automated digital surveying of existing buildings

How to identify modernization needs by using data and analytics?

How to automate workflows to radically improve productivity in modernization?

Modular, resilient and sustainable modernization solutions

How to develop next-generation modernization products that balance flexibility and scalability?



Next-gen delivery and maintenance

Create digital and fully connected buildings to improve on-site productivity in both maintenance and installation. We target at:

- Introducing “digital twin” of the whole field process, enabling new logistic and site management innovations
- Increasing job retention and attraction for construction workers and field technicians as well as customer satisfaction with installation and maintenance innovations.

LEADS:

Jukka Laitinen & Mika Kemppainen

Dedicated to People Flow™

Next-generation delivery and maintenance

Transparent and predictive field operations

How to establish lifecycle digital thread which can advance transparency and predictivity in field operations?

How to survey site readiness remotely and boost modernization efficiency?

Autonomous robotic operations

How to transition manual field operation processes to more automated, transparent and predictive, reducing physical strain?

Digitally enabled service for enhanced technician experience

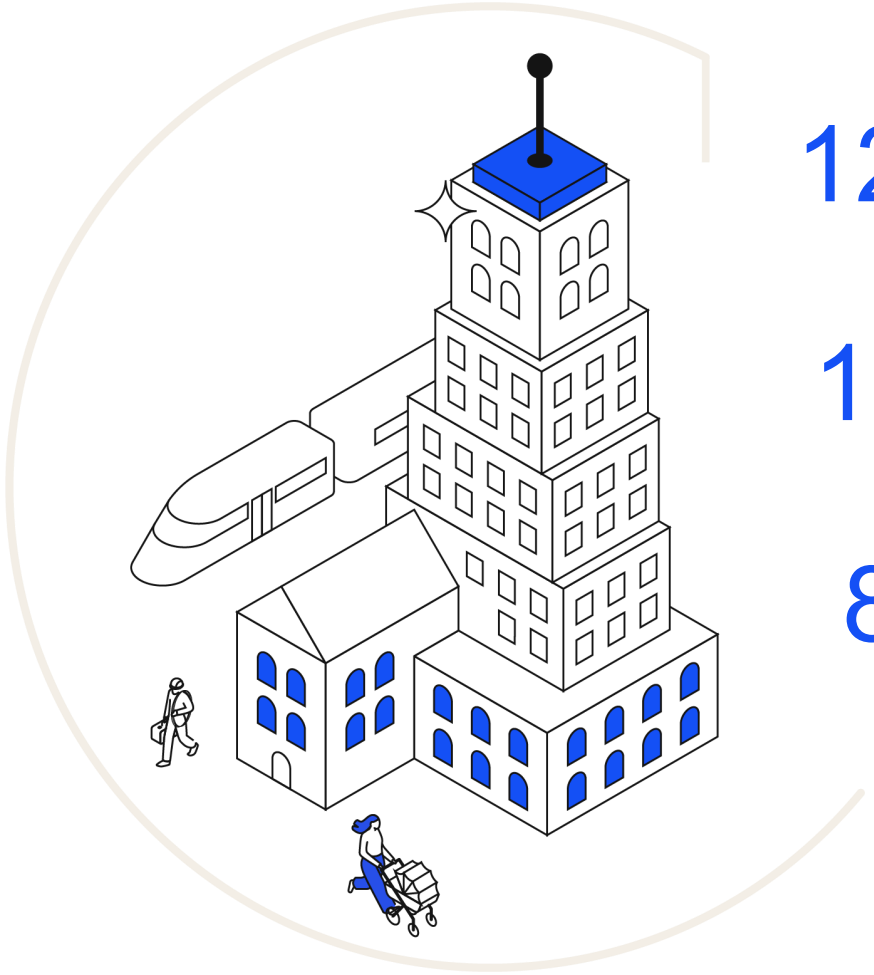
How to offer right information, at right time, in time format to field technician?

How to automatize technician workflows including back reporting of field actions?

Renaissance ecosystem

Renaissance ecosystem hub

To co-develop and drive new innovations and business models on digital and sustainable retrofit solutions faster to the market with key partners.



120 Ecosystem partners

16 Co-innovation projects

8 Target of EU level applications

We are looking for partners from different domains

Small and Medium Enterprises (SMEs)

to bring practical technology integration expertise for piloting and scaling new solutions in real-world environments.

Research partners

especially universities and research institutions to build foundations and future-facing competencies through shared research, testbeds, thesis projects and participation in research consortia & EU funded initiatives.

Corporations

to engage in strategic co-innovation partnerships and in building scalable solutions through peer collaboration and shared expertise, driving real market impact.

Startups

to drive agile innovation and bold disruptive concepts through piloting new solutions, accelerating go-to-market and co-creating the next generation of building technologies.


KONE