KONE

THE FLOW MUST GO ON

A GUIDEBOOK TO SMART AND PREDICTIVE MAINTENANCE

TABLE OF CONTENTS

AMID NEW CHALLENGES, THE FLOW MUST GO ON

Our cities are growing denser and the rhythm of life is becoming more hectic. The flow of people and information never ends. And, now more than ever, the idea of safe and healthy public spaces needs a serious rethink.

Businesses are constantly looking for new ways to tackle challenges in increasingly complex and competitive environments. To stay on top, they need smart, scalable, and all-encompassing solutions. Predicting instead of reacting. Flexibility instead of one-size-fits-all thinking.

After all, when it comes to business and people, the flow must go on.

NEW CHALLENGES, NEW NEEDS

FLEXIBILITY

Buildings are being used for different purposes at different times. This requires next-level adaptability and flexibility.

SAFETY & COMFORT

The building's users expect seamless experiences at all times. Equally, a sense of safety and comfort in public spaces is now more important than ever.

SUSTAINABILITY

Energy-efficient, responsible, and smart solutions are the new standard.

TECHNOLOGY TO THE RESCUE

As new challenges have emerged, technology has advanced. With today's mobile data, connectivity has reached new peaks, which means that we can analyze even the most complex streams of information efficiently using artificial intelligence. Equally, the technology of equipment sensors has become so advanced that the amount of data that can be processed is breathtakingly huge.

"We are keeping a constant eye on and analyzing increasing amounts of data on critical parameters and acting accordingly."

Mikko Aro
Head of Maintenance Development, KONE Corporation

WHAT IS PREDICTIVE MAINTENANCE?

In a nutshell, predictive maintenance is a service that uses AI-based analytics to make predictive maintenance decisions for elevators, escalators, and automatic building doors. The predictive maintenance we have developed is called KONE 24/7 Connected Services.

The game-changing idea is to identify and fix potential issues before they cause problems. When irregularities are detected, a service call can be arranged automatically or the issue scheduled to be addressed as part of the next check-up.

All the valuable information that the service provides is shared in a customer online portal, so you always know what's happening—and what we have prevented from happening. The portal also helps you to make smarter decisions by providing useful information on the building and people flow.

"It's like having eyes on site in real time, around the clock. You know exactly what's going on with each unit without having to be physically present."

Jerry Mansner
Service Technician, KONE Finland

KEY FEATURES OF PREDICTIVE MAINTENANCE
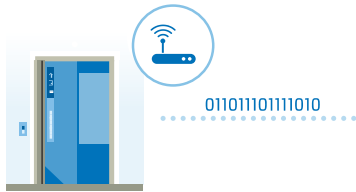
AROUND-THE-CLOCK MONITORING

AI keeps a constant eye on how your equipment is performing.

INTELLIGENT ANALYSIS

Intelligent technology analyzes maintenance needs and detects potential problems before they cause disruption.
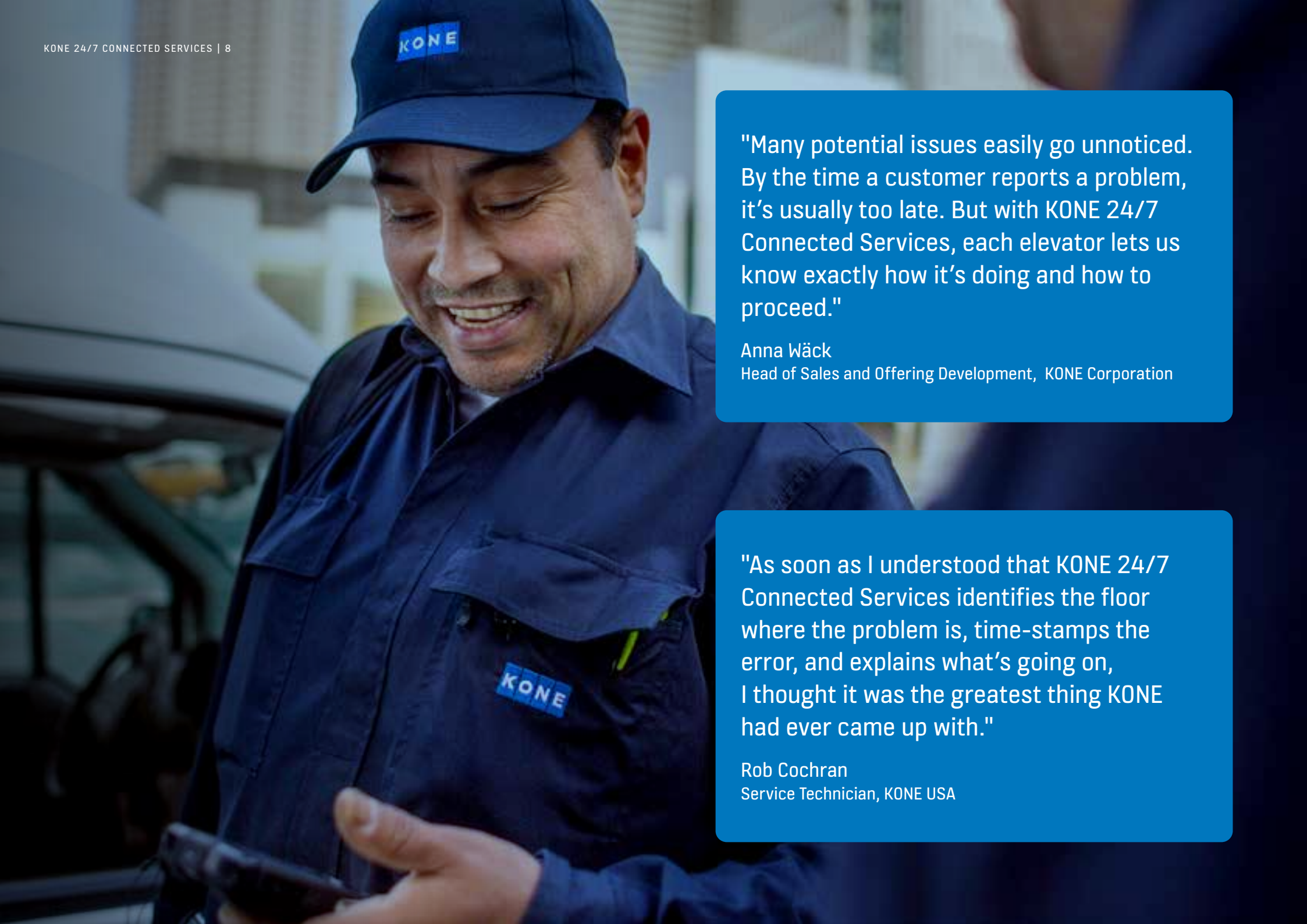
TIMELY ALERTS

Technicians get the right information at the right time to help them fix problems fast.

CLEAR REPORTING

You will be kept fully informed about all the work that is done as well as the outcome.

"Many potential issues easily go unnoticed. By the time a customer reports a problem, it's usually too late. But with KONE 24/7 Connected Services, each elevator lets us know exactly how it's doing and how to proceed."

Anna Wäck
Head of Sales and Offering Development, KONE Corporation

"As soon as I understood that KONE 24/7 Connected Services identifies the floor where the problem is, time-stamps the error, and explains what's going on, I thought it was the greatest thing KONE had ever came up with."

Rob Cochran
Service Technician, KONE USA

WE ARE HERE TO GET YOU STARTED

Believe it or not, but all pieces of equipment are individuals in terms of their history, environment, and other factors. To stay in good condition for the long haul, each elevator needs tailored maintenance—there's no one-size-fits-all solutions, at least no efficient ones

"In a way, elevators are like people — they all have unique traits and flaws. With predictive maintenance, we are able to know those and thus maintain them as individuals."

Mikko Aro
Head of Maintenance Development, KONE Corporation

IT'S PREDICTIVE AND SMART. BUT WHAT DO I GET OUT OF IT?

In short, KONE 24/7 Connected Services brings added value to your building. Having potential issues tackled before they become actual problems means taking the next step into the future. The benefits include better user experience, returning customers, smooth people flow even during peak hours, guaranteed safety and reliability when it counts, and peace of mind for you. With access to up-to-date data, you can also make better investment decisions and optimize resource allocation. What's more, without major breakdowns your equipment will last longer.

With a combination of our dedicated specialists and cutting-edge technology, KONE 24/7 Connected Services secures people flow, enhances user experience, prevents breakdowns, and keeps you ahead of your game.

That's what we call
URBAN LIFE – UNINTERRUPTED.

MORE VALUE TO YOUR BUILDING

PEACE OF MIND FOR YOU AND THE END USERS:

24/7 monitoring enhances the safety of your building and helps everything run smoothly—leading to more satisfied users.
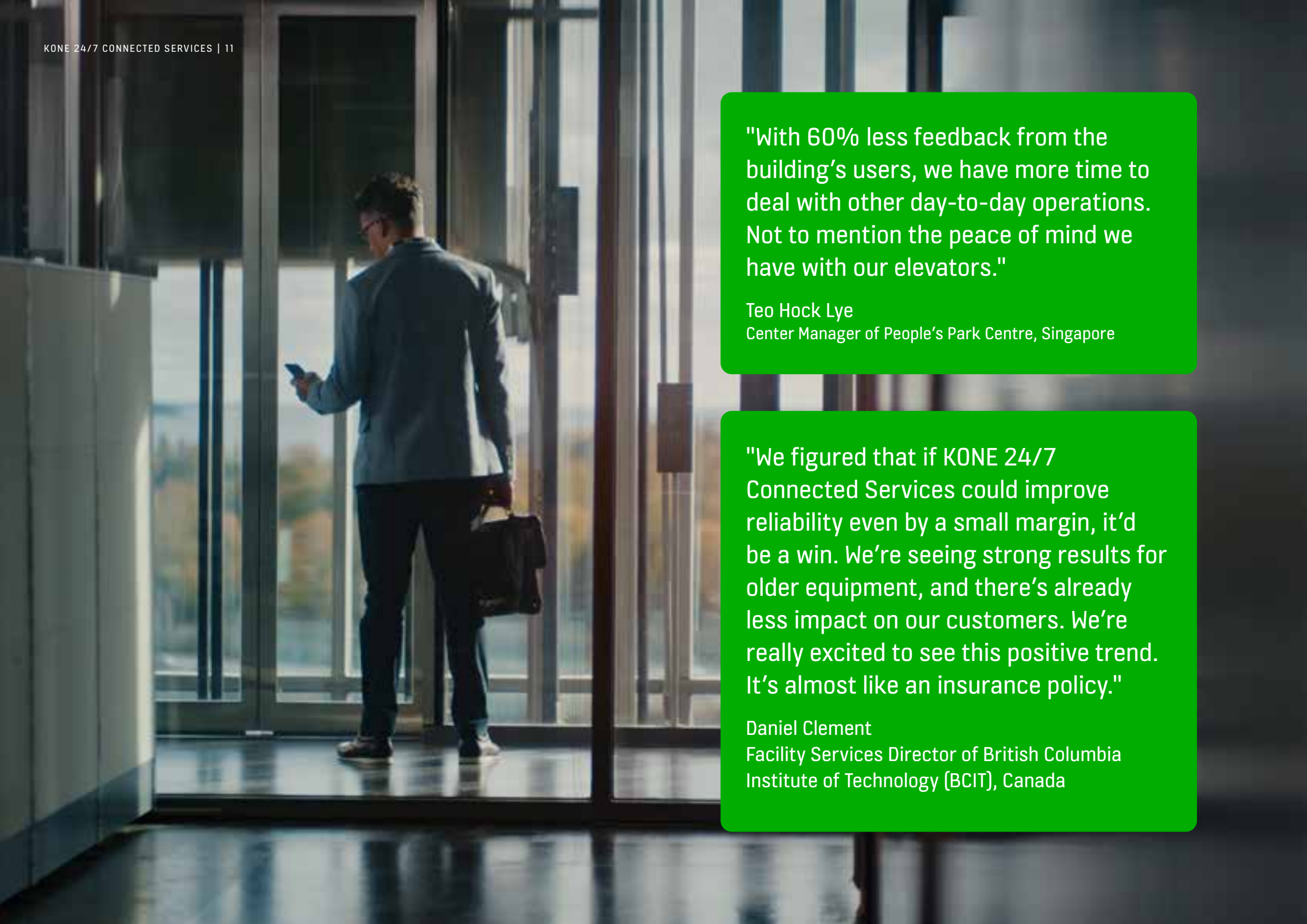
EFFICIENT BUILDING MANAGEMENT:

Preventive maintenance saves you time, provides you with all the data you need, and cuts the facility managers' workload.

BETTER BUSINESS:

Addressing potential problems early results in longer-lasting equipment and fewer costly faults, and enables you to better plan ahead.

The outcome of 24/7 specialist service combined with cutting-edge technology is a functioning building with happy end-users.

"With 60% less feedback from the building's users, we have more time to deal with other day-to-day operations. Not to mention the peace of mind we have with our elevators."

Teo Hock Lye
Center Manager of People's Park Centre, Singapore

"We figured that if KONE 24/7 Connected Services could improve reliability even by a small margin, it'd be a win. We're seeing strong results for older equipment, and there's already less impact on our customers. We're really excited to see this positive trend. It's almost like an insurance policy."

Daniel Clement
Facility Services Director of British Columbia Institute of Technology (BCIT), Canada

DAILY LIFE
UNINTERRUPTED

HOME IS WHERE THE RELIABLE ELEVATOR IS

When it comes to different areas of life, home is the most important one. There's no compromising on safety and convenience. Everyone expects their home to be a sanctuary, free from hazards and hassle. Even the slightest problem may cause a crack in this sense of security.
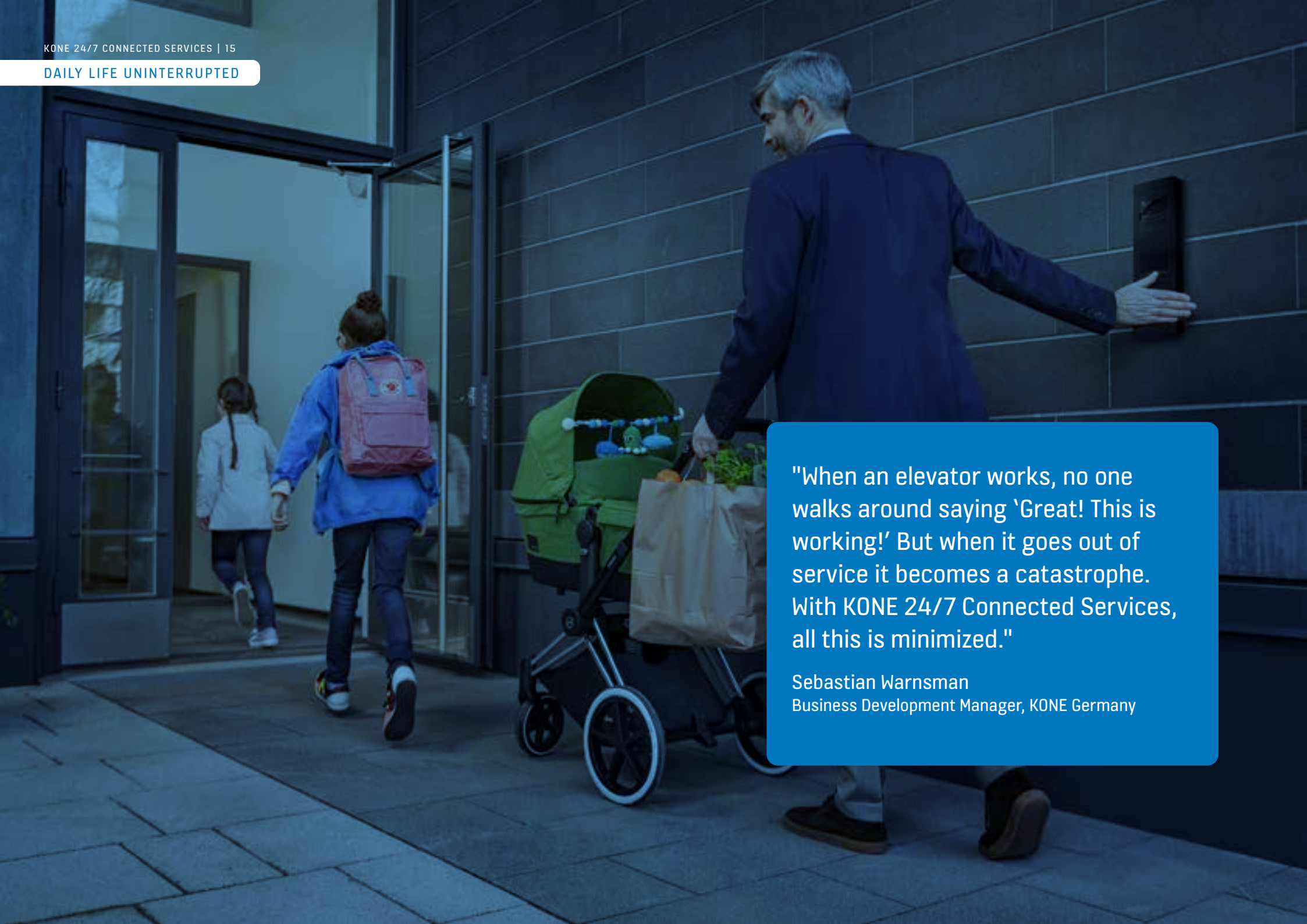
PREDICTIVE MAINTENANCE FOR RESIDENTIAL BUILDINGS

1 **SAFETY AND CONVENIENCE FOR RESIDENTS:**
Avoid unpleasant surprises and maintain a sense of security.

2 **FEWER CUSTOMER CALLS, FEWER COMPLAINTS:**
24/7 monitoring coupled with preventive maintenance reduces call-outs by on average 28% and keeps your residents satisfied.

3 **EFFICIENCY AND READINESS:**
Automatic issue reporting saves time and keeps you up to date and able to address residents' questions.

4 **PROLONGED ELEVATOR LIFETIME:**
Tackling problems early helps to avoid damaging breakdowns.

A functioning building with happy residents backed up by cutting-edge technology means MORE VALUE FOR YOUR BUILDING

"When an elevator works, no one walks around saying 'Great! This is working!' But when it goes out of service it becomes a catastrophe. With KONE 24/7 Connected Services, all this is minimized."

Sebastian Warnsman
Business Development Manager, KONE Germany

TOWARD HAPPIER LIVING

Instead of constant "Out of order" notices, keeping tenants happy by making sure everything works without hiccups goes a long way.

The smartest and most foolproof way to achieve all this is a predictive maintenance system.

Powered by around-the-clock automatic AI, it is able to detect issues before they become real problems. In other words, it will help to tackle even the slightest of glitches without your tenants even noticing them. Fewer service calls, fewer problems, happier living.

Predictive maintenance also automatically schedules maintenance calls and provides automatic issue reporting, so that the facility managers always have up-to-date information for the tenants when needed.

What does this mean in terms of building value?

With more accurate data, more cost-efficient decisions can be made. Furthermore, predictive maintenance prolongs elevator lifetime and prevents unplanned call-outs. Last but certainly not least, cutting-edge tech features attract new tenants.

"What's great is that KONE 24/7 Connected Services is viable for elevators of all ages, sizes, and brands."

Olivia Ollierou
Sales Director, KONE France

"KONE 24/7 Connected Services is able to lead me in the direction of the root cause, which would previously have been a bit of a guessing game, relying on little more than personal experience."

Daniel LaFleur
Mechanic, KONE Canada

OFFICE LIFE
UNINTERRUPTED

THE FLOW OF BUSINESS MUST GO ON

The ever-growing competition and unforeseen mobility in today's world leaves no room for interruptions—that goes for protecting your brand image as well as maintaining high performance at every level of your operations.

And it's not just about brand and business—steady people flow without bottlenecks caused by malfunctions is also about health. The ongoing pandemic has been an unforgettable reminder of that.

Provide a stable and reliable working environment for your customers and ensure convenience and efficiency of the workers.
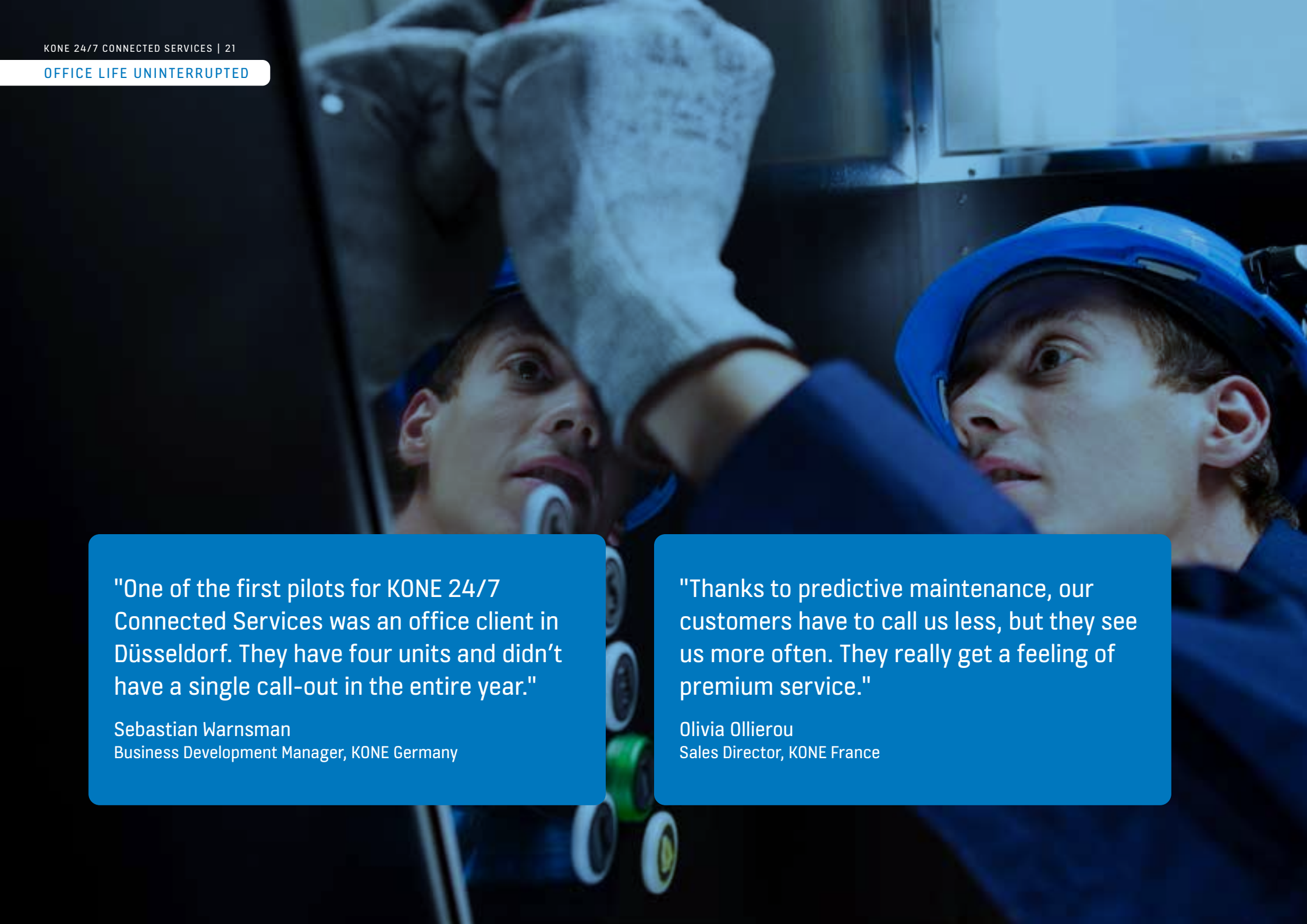
PREDICTIVE MAINTENANCE FOR OFFICES

1 **FEWER DISRUPTIONS, GREATER PRODUCTIVITY:**
Significantly reduces disruptions, thus securing people flow and enhancing safety around the clock—including during busy peak hours.

2 **MEET AND EXCEED EXPECTATIONS:**
By providing reliability, predictive maintenance helps you to keep up with the ever-growing requirements of modern business.

3 **PROLONGED EQUIPMENT LIFETIME:**
Tackling problems reduces costly breakdowns and increases the lifetime of your equipment.

4 **TIME SAVED:**
Automatic reporting, analysis and ordering maintenance calls means quicker recovery and fewer complaints from workers and tenants.

Smart features attract new tenants, enhance the building's image and increase the property value. MORE VALUE TO YOUR BUILDING.

"One of the first pilots for KONE 24/7 Connected Services was an office client in Düsseldorf. They have four units and didn't have a single call-out in the entire year."

Sebastian Warnsman
Business Development Manager, KONE Germany

"Thanks to predictive maintenance, our customers have to call us less, but they see us more often. They really get a feeling of premium service."

Olivia Ollierou
Sales Director, KONE France
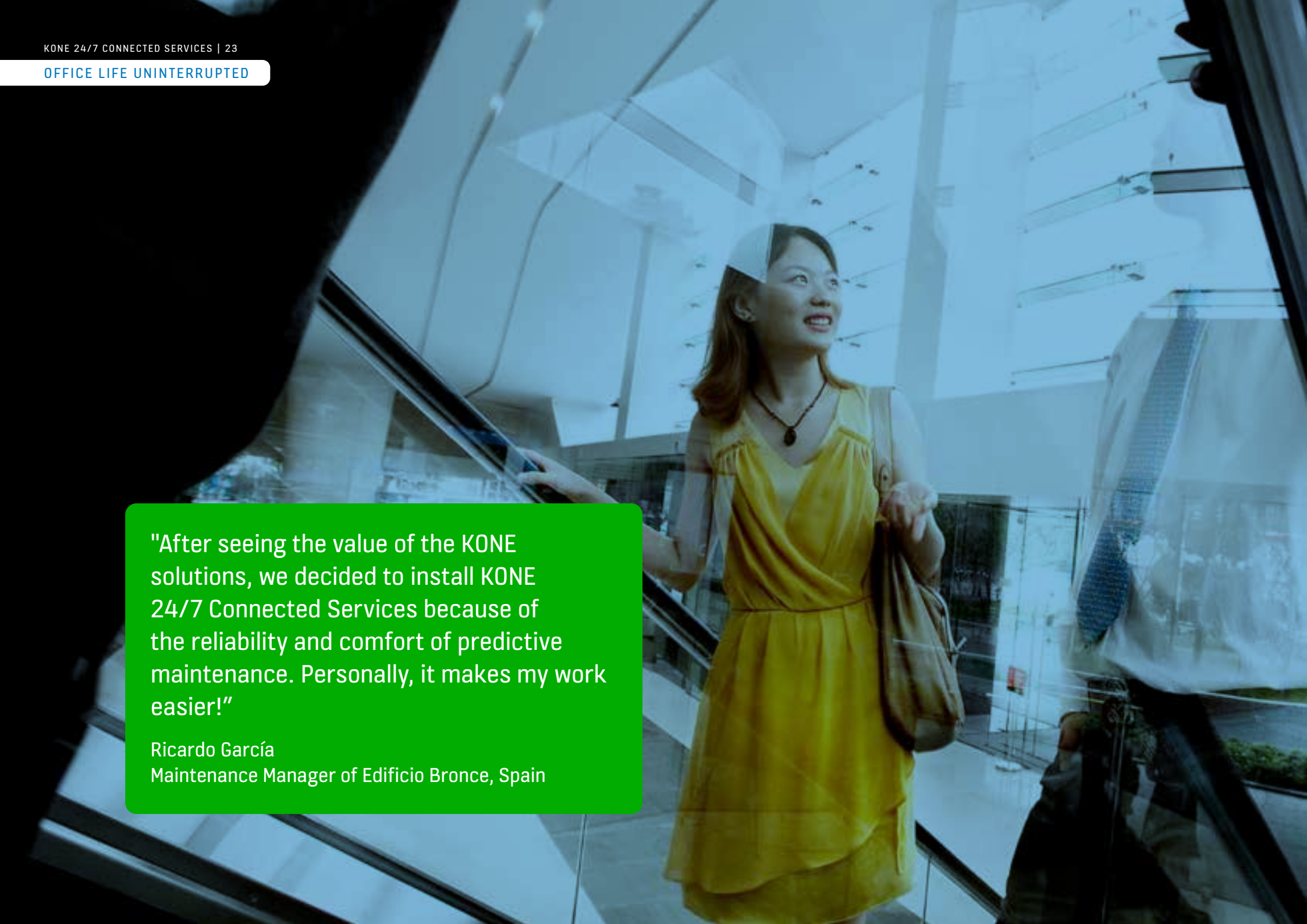
KEEP UP WITH THE CHANGE

In an office, every day is different, and that goes for people traffic as well. Some days are calm, while others are as busy as they can be. That's why even minor problems with the equipment can cause substantial jams. To ensure a safe and smooth people flow on a greater scale, it's not enough to try and fix problems when they're causing trouble. To avoid things being out of order, an all-encompassing, preventive system is needed.

Predictive maintenance is an AI-backed system that gathers data from your equipment, detects problems, and orders maintenance calls—perpetually learning from the data and improving its accuracy. Tackling issues before breakdowns is more cost-efficient, increases equipment lifetime, and, above all, helps you avoid elevator entrapments and other inconveniences. That's next-level efficiency. With predictive maintenance, your high-tech building is up for the challenges of today's business and keeps your visitors happy and thriving.

OFFICE LIFE UNINTERRUPTED

"After seeing the value of the KONE solutions, we decided to install KONE 24/7 Connected Services because of the reliability and comfort of predictive maintenance. Personally, it makes my work easier!"

Ricardo García
Maintenance Manager of Edificio Bronce, Spain

0,64 m/s

4241 W

33,2℃

RETAIL UNINTERRUPTED

EVERY FLOOR MEANS BUSINESS

The world has seen unprecedented growth in online shopping. To keep people coming back to your stores, an inspiring and smooth user experience is imperative. Fending off major malfunctions in your facilities plays a huge role in it.

PREDICTIVE MAINTENANCE FOR RETAIL

1 **PEOPLE AND REVENUE FLOW UNINTERRUPTED:**
Fending off disruptions helps to secure people flow at peak hours and keeps visitors happy.

2 **FEWER BREAKDOWNS AND QUICK RECOVERY:**
As many as 50% of escalator stoppages can be solved with an immediate restart due to automatic reporting and analysis.

3 **DATA-BASED INVESTMENTS:**
Maintain the value of your property and increase its reputation and desirability in the future.

4 **BETTER REPUTATION AND ATMOSPHERE:**
Better accessibility and smoother customer journeys means good reputation and more customers.

Securing smooth customer journeys and a better user experience, and having better data at hand equates to BETTER RETAIL BUSINESS FOR YOU.

"The greatest benefit that I have seen is the case when the system detected a potential safety issue with an elevator, recognized it as high priority, and activated KONE to dispatch their technicians to resolve it before it became a problem. All this was done in real time and even before the issue was spotted by a person."

Kenny Ng
Manager of SAFRA, Singapore

ENABLING A PLEASANT SHOPPING JOURNEY

Running a facility with huge people flows is no walk in the park when you want to offer a flawless shopping experience to the visitors. In such a multi-faceted and uncertain environment, having your equipment work immaculately is key. And what better way to do that than to ensure all goes well in advance, instead of running around in crisis mode. This is where predictive maintenance comes in. It's a system that detects even the slightest irregularities and automatically arranges check-ups by technicians. That's how you tackle potential problems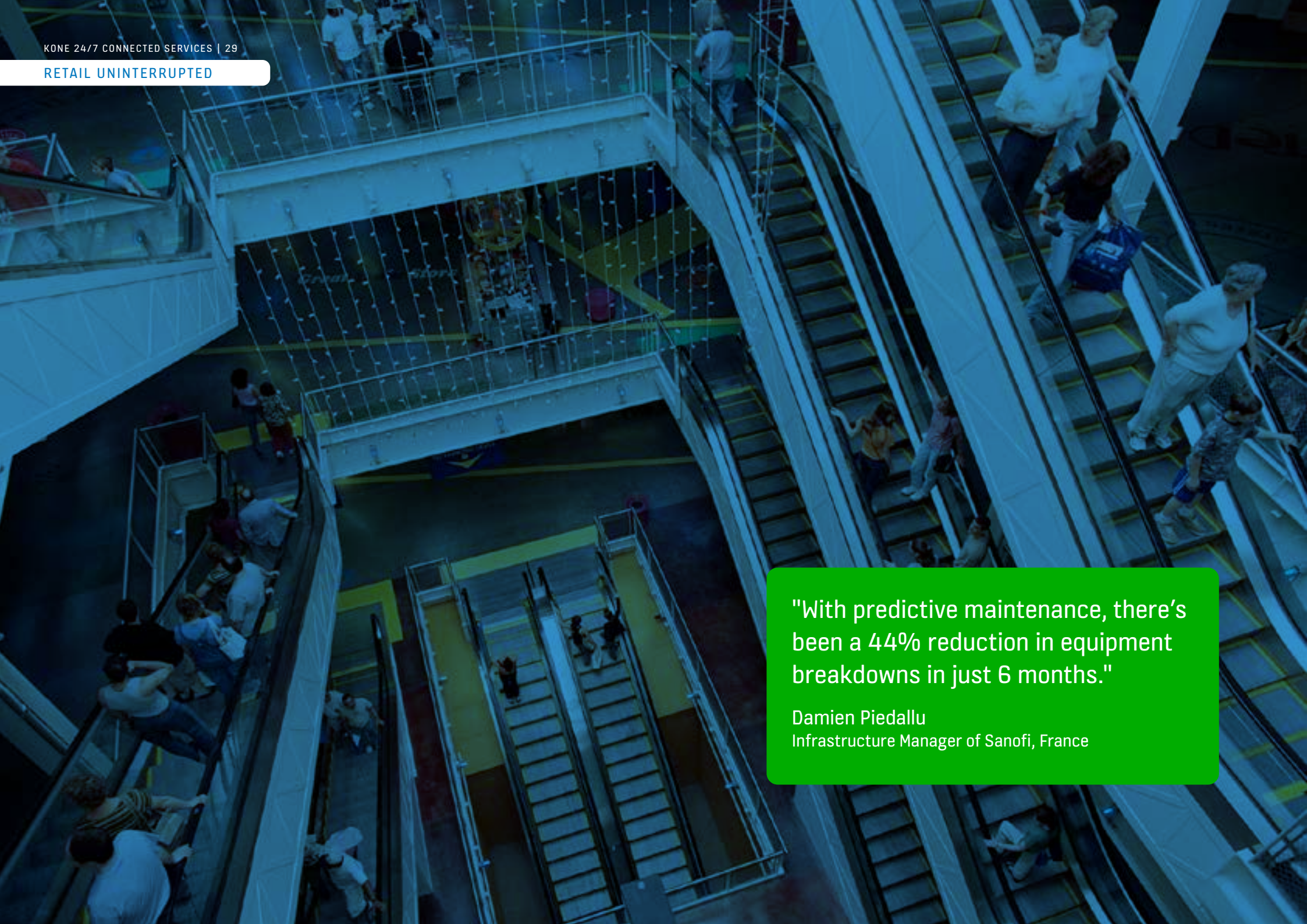 before they become real ones. That's how you secure an optimized customer journey without hiccups. After all, happier customers means better brand image.

Better data, bigger revenue

The heart of predictive maintenance is AI that gathers data from your equipment and learns to get better at it. With up-to-date data you can further optimize your people flow, make better-informed investments and cost allocations, and prolong the lifetime of your equipment.

In other words, it's better business for you.

"With predictive maintenance, there's been a 44% reduction in equipment breakdowns in just 6 months."

Damien Piedallu
Infrastructure Manager of Sanofi, France

HOTEL LIFE
UNINTERRUPTED

HOTEL VISITORS CAN BE CRITICAL

Considering the number of online reviews and amount of social media coverage, the guest experience is crucial. Often, a smooth experience is something you don't even notice—until something goes wrong. That's why avoiding unplanned interruptions is key when looking to ensure a pleasant stay and maintain a good brand image. A sense of reliability is easy to lose and hard to earn back.

PREDICTIVE MAINTENANCE FOR HOTELS

1 BETTER BRAND IMAGE:
Avoiding major problems means improved customer experiences, better reviews, and, together with superior service, justifies premium room prices.

2 SMOOTH PEOPLE FLOW:
Intelligent predictive maintenance reduces disruptions and improves people flow during peak hours.

3 LESS DOWNTIME, FEWER COMPLAINTS:
Automatic reporting and analysis of issues makes it possible to reduce downtime and guest complaints.

4 OPTIMIZING THROUGH DATA:
With cutting-edge data, it's easier to optimize people flow, prolong equipment lifetime, and make informed investment decisions.

Resulting in
BETTER BUSINESS FOR YOUR HOTEL.

"Hotel visitors are paying for the whole experience. If something goes wrong—it's no good. In a way, KONE 24/7 Connected Services is like insurance against negative feedback."

Kristoffer Ekström
Sales Manager, KONE Finland

OFFER A 5-STAR ELEVATOR EXPERIENCE

In the hotel business, being able to provide a safe, convenient, and comfortable experience throughout the stay is all that matters. Ensuring that all goes well is especially challenging during peak hours, such as evening check-ins and morning check-outs. That's why an intelligent system that predicts and tackles problems beforehand is the only way to keep that people flow up and running.

With predictive maintenance, at KONE we can monitor and prevent potential disruptions at your facilities. Thanks to advanced AI, you'll have the most accurate and nuanced data at your disposal, so you can plan ahead and stay in the know about the performance and challenges of your hotel building, resulting in prolonged equipment lifetime.

Optimizing people flow and preventing defects have never been more important. It's a challenge that requires cutting-edge technology and data processing, backed up by experts, people dedicated to keeping your processes running with minimized downtime.

Delightful customer experiences mean better reviews and, at the end of the day, better business for your hotel.

"It's not uncommon to hear my client ask me, 'Why haven't I heard about this before?' when they witness the results provided by KONE 24/7 Connected Services for the first time."

Petri Saarinen
Sales Manager, KONE Finland

HEALTH CARE UNINTERRUPTED

IT MIGHT BE A MATTER OF LIFE AND DEATH

In health care facilities, ensuring that everything works is not just a matter of happier customers—it's about saving lives. It's no small challenge to stay in control of operations and patient flow around the clock, seven days a week. Luckily, there are smart solutions to make all this work.

PREDICTIVE MAINTENANCE FOR HEALTH CARE

1 **ACCESSIBILITY:**
Enhancing safety by ensuring that critical equipment is available in an optimized way.

2 **SAFETY:**
Preventive maintenance helps to avoid breakdowns, securing patient and visitor flows at all times.

3 **EFFICIENCY AND READINESS:**
Automatic issue reporting saves time, keeps you up to date about your building, and gives both visitors and patients peace of mind.

4 **PROLONGED EQUIPMENT LIFETIME:**
Early tackling of problems avoids damaging breakdowns and results in longer-lasting equipment and money saved.

A trustworthy system enhances safety and predictability for patients, visitors, and staff alike.
MORE VALUE TO YOUR BUILDING

"It's handy to have the problem diagnosed before a call-out, so you know which tools and spare parts to take along."

Jerry Manser
Service Technician, KONE Finland

PROVIDING RELIABILITY WHERE IT MATTERS

In life and death situations, there's no room for equipment malfunctions. The elevators cannot get stuck; people cannot be left waiting at any time.

This is where predictive maintenance comes in. The beauty of the system is that learning AI can gather data from your equipment and detect even the smallest glitches before they start becoming real problems with dire consequences.

Based on the data, the technicians can fix possible issues before they cause any major problems, and thus ensure that all critical parts of your operations stay intact no matter what. That's uncompromised safety and uninterrupted health care for your facility.

A more humane service

Apart from actually saving lives, having your operations run smoothly and uninterrupted means that patients and their families feel more secure and at ease. You can also make sure visitor flows and other usage don't impact patient flow and evacuations, which makes the life of your medical staff much easier too.

Predictive maintenance means uninterrupted operations in a sector, where there's no room for interruptions.

"During the four-month pilot period, the number of elevator failures decreased by 25%, the failure rate improved by 14%, and no cases of entrapment occurred. Based on these good results, we decided to connect all 305 of our elevators to the system."

Mika Ahia
Facility Manager of Helsinki University Hospital (HUS), Finland
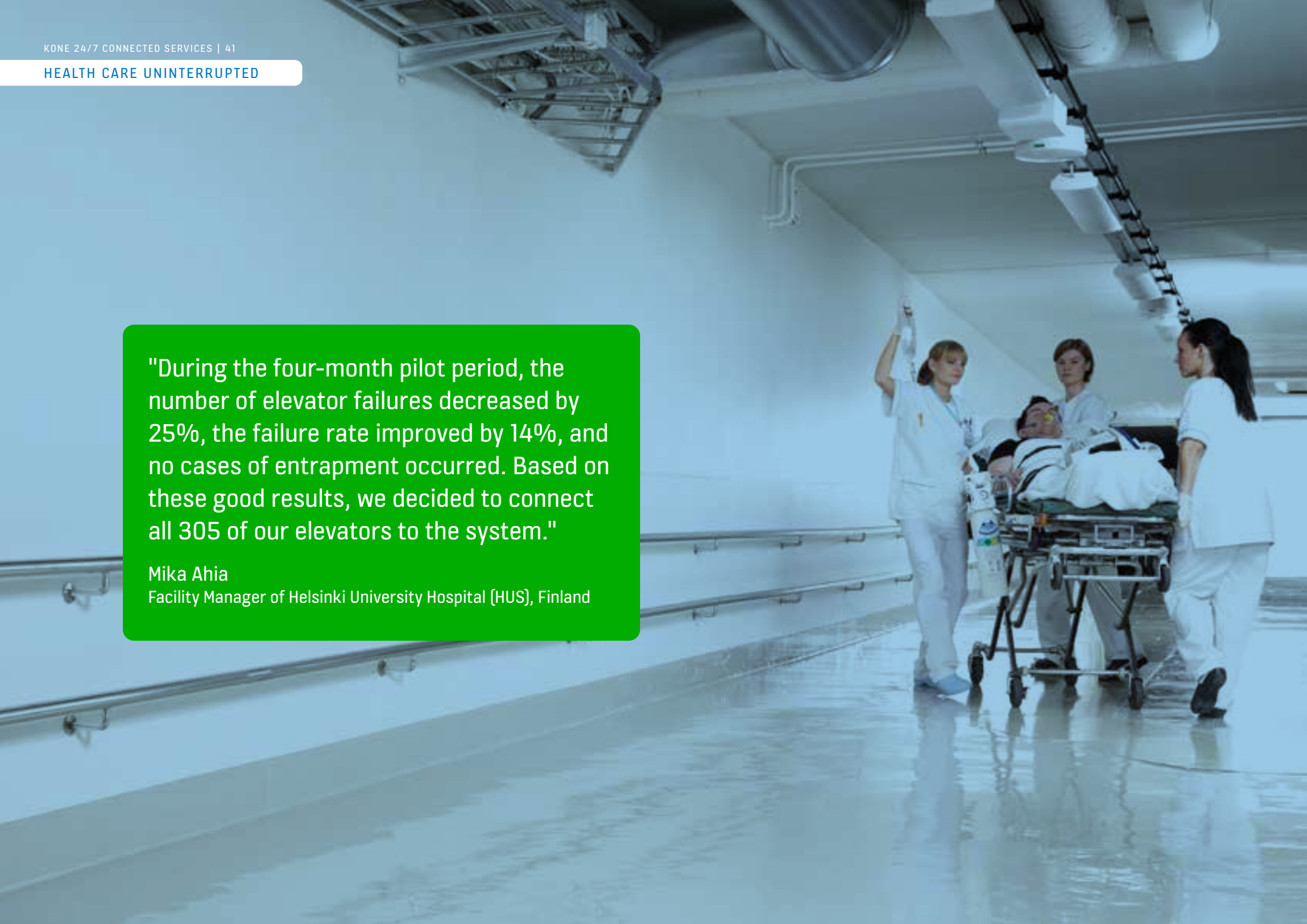
WANT TO LEARN MORE?

By now, you should have a general idea of predictive maintenance. But as you know, every building is different. If you want to know more about how you can benefit from predictive maintenance, don't hesitate to contact us. We are happy to offer free consultation.

Your journey to smart and predictive maintenance starts here.
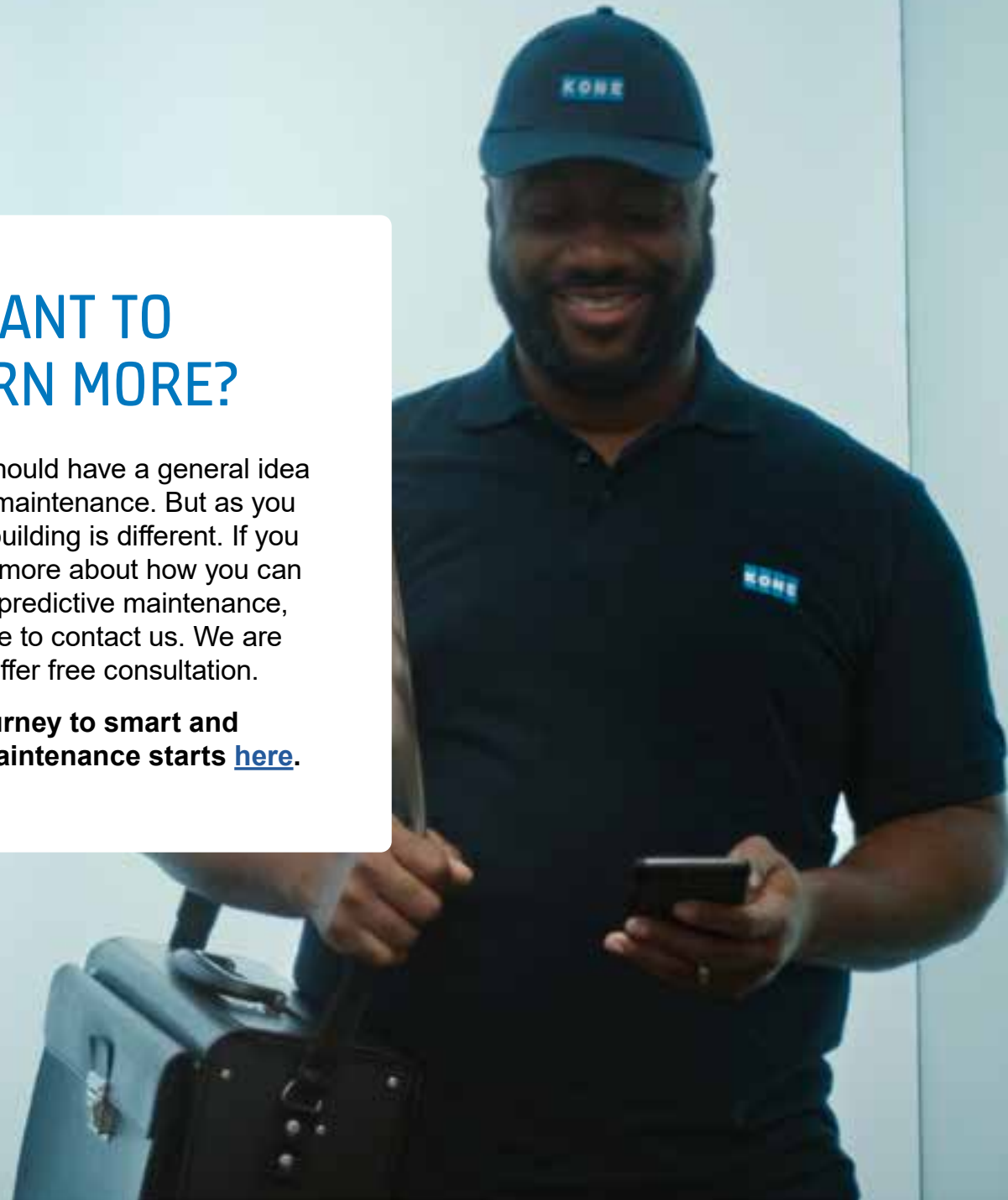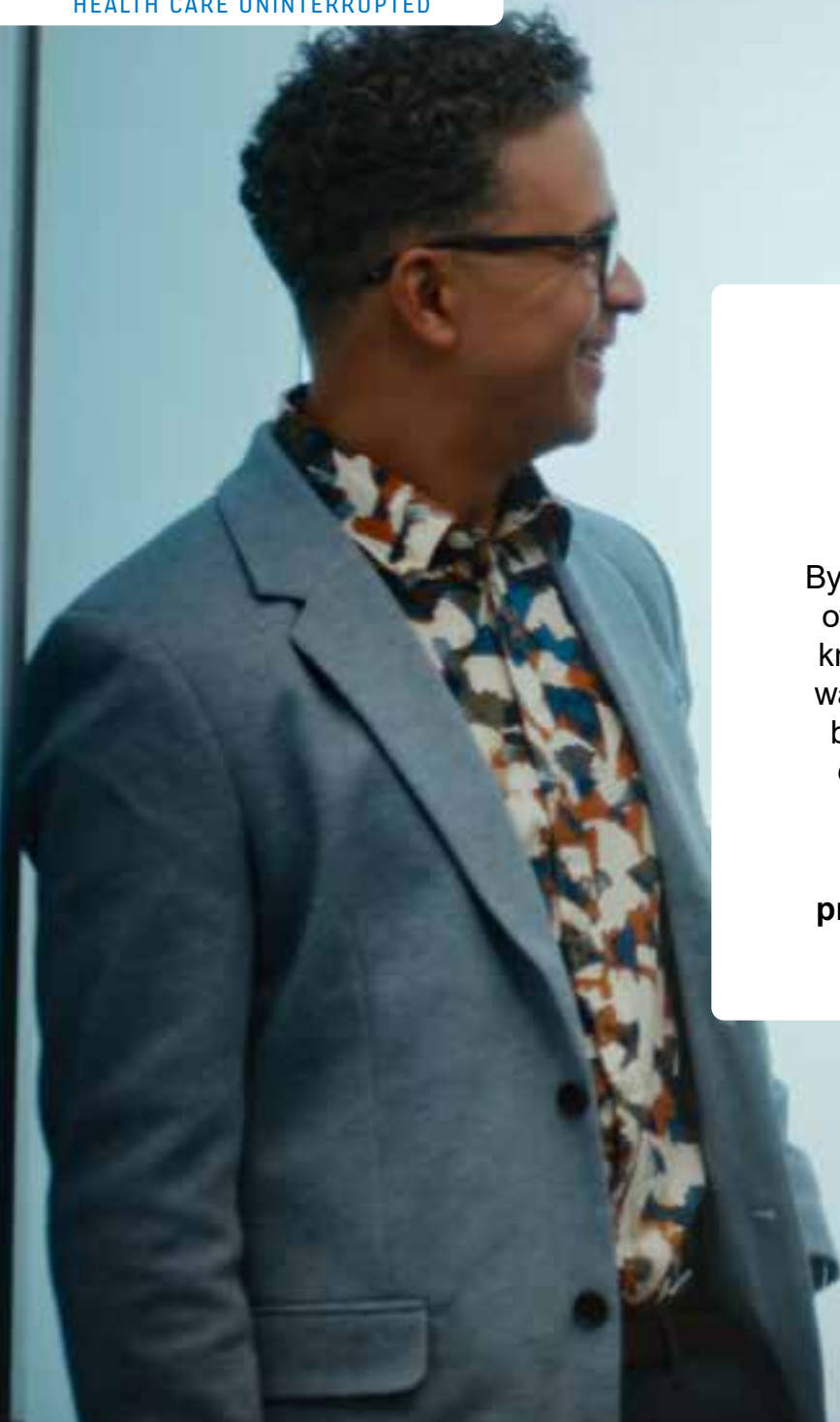
KONE provides innovative and eco-efficient solutions for elevators, escalators, automatic building doors and the systems that integrate them with today's intelligent buildings.

We support our customers every step of the way; from design, manufacturing and installation to maintenance and modernization. KONE is a global leader in helping our customers manage the smooth flow of people and goods throughout their buildings.

Our commitment to customers is present in all KONE solutions. This makes us a reliable partner throughout the life cycle of the building. We challenge the conventional wisdom of the industry. We are fast, flexible, and we have a well-deserved reputation as a technology leader, with such innovations as KONE MonoSpace® DX, KONE NanoSpace™ and KONE UltraRope®.

KONE employs close to 57,000 dedicated experts to serve you globally and locally.

KONE ELEVATORS CYPRUS LTD

38 Prodromos Avenue
2063 Strovolos Nicosia
Tel: +357 22778160
Email: kcy@kone.com

www.kone.com.cy