

SkyRise®

**OTIS**



Dubai's Burj Khalifa, the world's tallest structure at 828 meters, combines cutting-edge building technologies with historic references to Islamic architecture. The owners asked Otis to provide the elevators for this iconic building. In 2015 the two double-deck elevators used to reach the observation deck on the 124th floor reached an impressive milestone, having traveled a total of 384,400 kilometers since the building's opening in 2010 – equal to the distance between the Earth and the moon. Each day, the double-deck elevators travel 244 kilometers – at speeds of 10 meters per second, or more than 20 miles per hour.

Your building will inspire generations to come.

Our mission is to bring your vision to life.



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We wanted a beautiful monument for our capital city. Otis helped us achieve our vision.

The Lotte Group

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The Lotte World Tower rises 555 meters above the city of Seoul — its sleek, tapered look inspired by traditional Korean art forms. Employing the world's tallest double-deck hoistway, Otis double-deck elevators inside this landmark building take just 60 seconds to bring passengers to the observation deck on the 121st floor.

## Lotte World Tower

Seoul, South Korea

World's tallest double-deck hoistway

**555** meters  
in height

**60** seconds  
to observation deck

**10** million  
system is designed to handle  
this number of passenger trips/  
year to observation deck

# Free your imagination

A tall, iconic building can energize a city and inspire people for generations. Creating one requires a leap of the imagination – and a partner to help bring your ideas to life.

A partner like Otis.

For more than 160 years, we've been partnering with customers like you, pushing the limits of technology to transform the urban landscape with ever taller, more ambitious buildings. And with SkyRise, our premier high-rise elevator system, we have taken everything we know and pushed it even further to deliver the solutions your project demands.

Wherever your imagination takes you, SkyRise will get you there.

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Flexible solutions to realize your vision

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A refined passenger experience

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Innovative technologies working together

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Unique capabilities to streamline construction

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A dedicated global major projects team

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Support you can count on through a lifetime of service

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Once mainly farmland, the Pudong district of Shanghai has emerged as a major financial hub since being designated a Special Economic Zone in 1993. Today its skyline is among the most recognizable in the world. Otis is proud to have partnered with architects and developers in the district's transformation, supplying elevators and technological expertise for two of its most iconic buildings – the Shanghai World Financial Center (far right) and the Oriental Pearl Television Tower (center left).



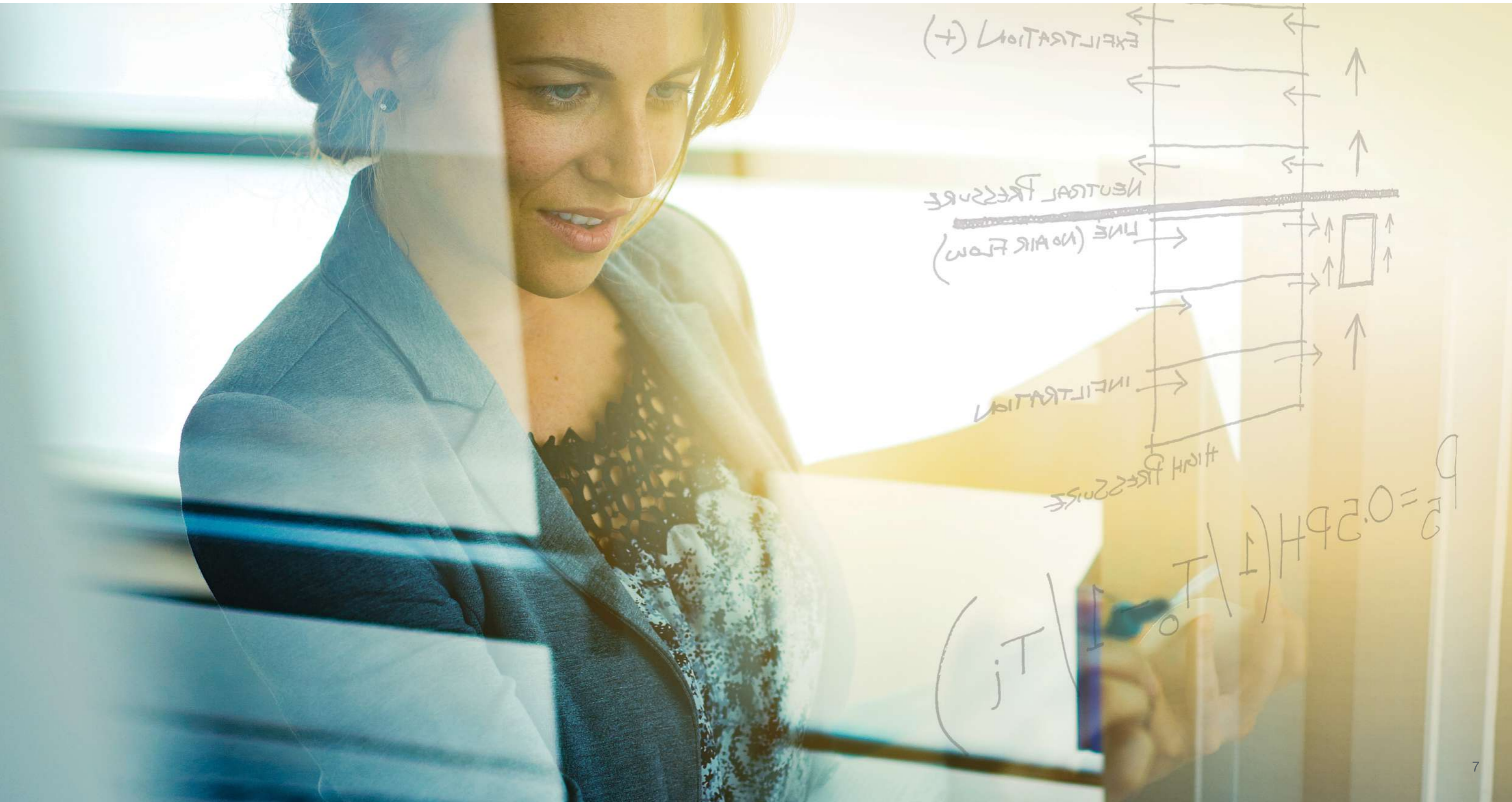
# Design without limits

Every high-rise project brings unique challenges. We help you anticipate them and develop solutions grounded in cutting-edge science and precision engineering.

To ensure your SkyRise system delivers peak performance, we conduct advanced simulation and analysis to understand site-specific variables such as building sway and stack effect.

And we can integrate access control, security and fire safety technologies into the system by leveraging products and expertise from our sister United Technologies companies, including Carrier, Chubb, Kidde and Lenel.

We also partner with the United Technologies Research Center, one of the world's premier research organizations. By working together in areas ranging from materials science to acoustics, we ensure that our products remain among the safest, most reliable and most exciting in the industry.





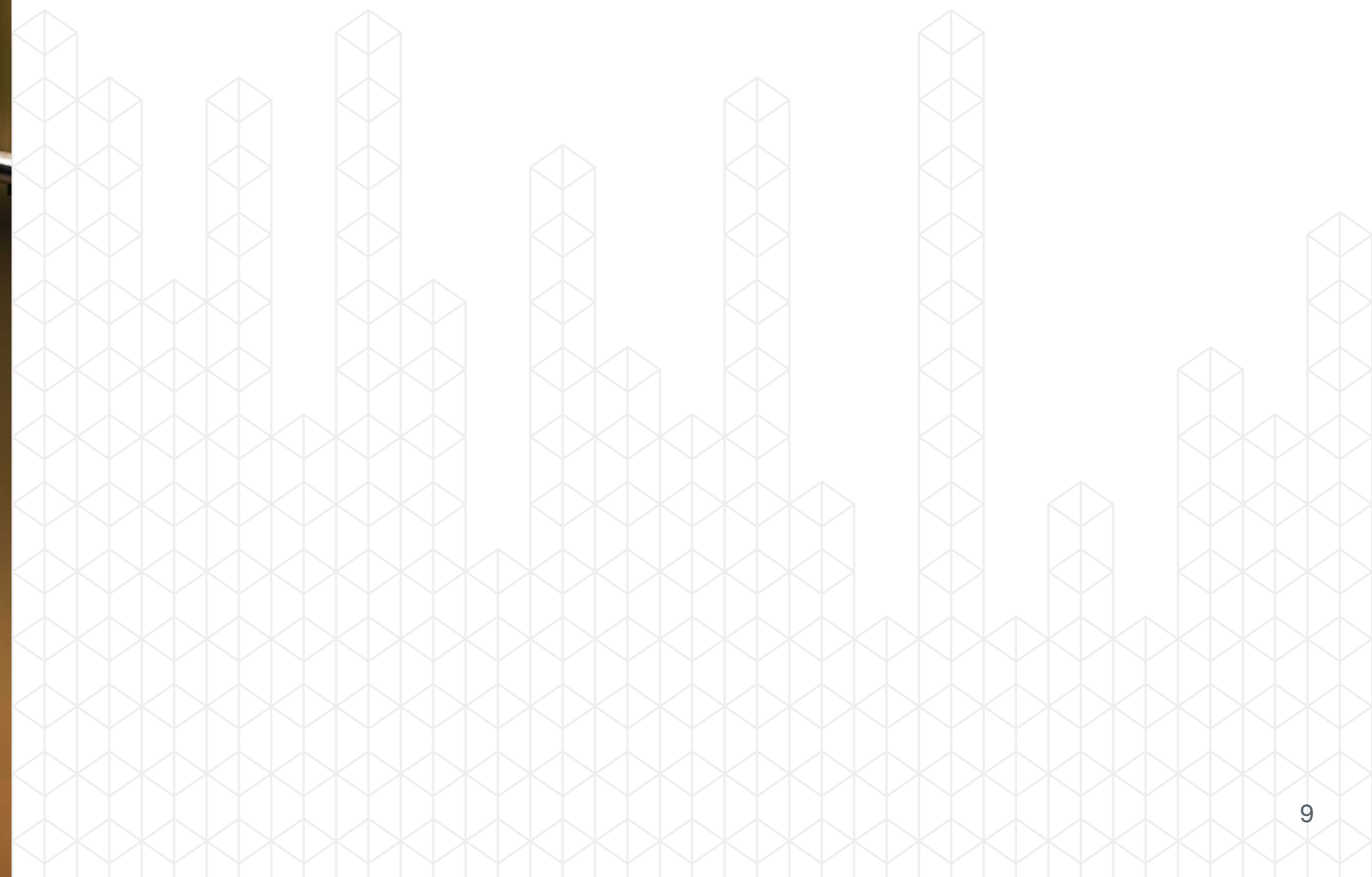
## Step into perfection with CompassPlus®

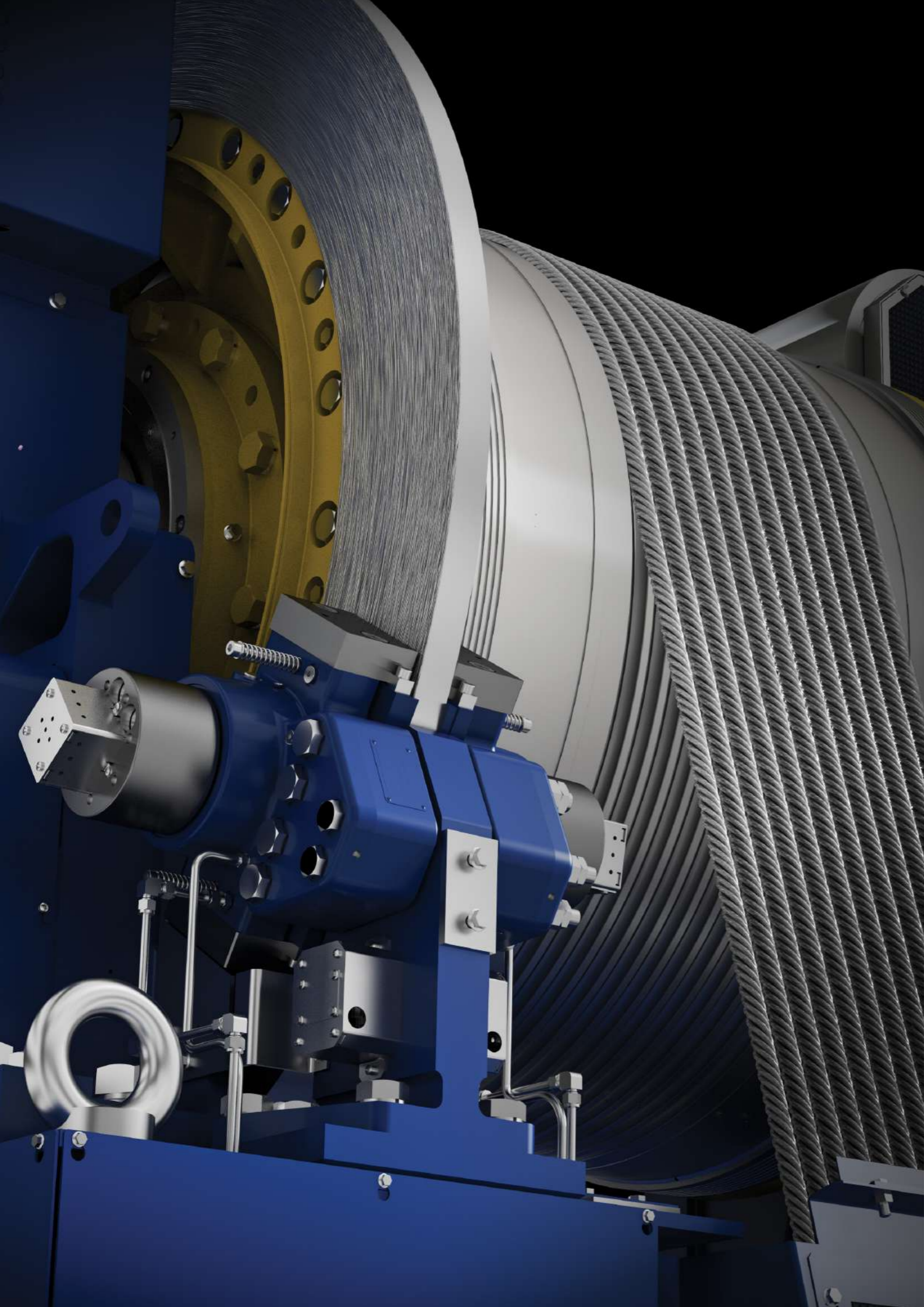
To experience a SkyRise elevator is to experience your building at its best: a quick, easy, relaxed transition from a welcoming lobby to a destination at the top of the world.

Design is central to the passenger experience. SkyRise gives you the freedom to craft superb, stylish interiors that delight your passengers, support your vision and complement the character of the building itself.

Perfection goes beyond aesthetics. It also includes technologies that make the entire experience of the building more enjoyable.

Our CompassPlus® dispatching technology gets people where they are going up to 50 percent faster than conventional dispatching systems. With our smartphone apps, passengers can summon an elevator from their office or apartment, or while they're on the move. And our OptiSense™ traffic management technology minimizes waiting time by analyzing traffic patterns and sending additional elevators to the floors where they are needed most. It all adds up to a perfect ride: quiet, comfortable, seamless.





## Innovative technologies working together

Each SkyRise installation integrates industry-leading technologies to ensure the seamless, safe operation of the entire system. Its sustainable design minimizes space requirements and reduces energy use.

### SkyMotion machines

Our SkyMotion® machines are among the most energy-efficient on the planet. Their lighter weight makes them easier to install, and their smaller footprint saves space.

### E2 intelligent control system

Our state-of-the-art controller is built with the fly-by-wire style technology used in aircraft, providing superior reliability in a compact design. The controller employs adaptive motion profiling to reduce energy consumption while our patented control algorithm ensures a smooth ride.

### ReGen drive

As pioneers in the use of regenerative drives, we continue to advance this technology with the development of multilevel switching designs that are quieter, smaller and even more efficient. Energy efficiency is important to our customers — so the ReGen™ drive is standard on all SkyRise systems.

### Q-frame cab technology

We love elevators, especially quiet, smooth ones. So we designed our noise-blocking Q-frame cab and aerodynamic shroud using computational fluid dynamics and wind tunnel tests. Trust us. The science works.

### Safety brakes

We have families too. So all our products are designed to meet the highest standards. It's also why we make the safety brakes for the highest-speed SkyRise elevators from the same materials that were used by United Technologies to make rocket engine nozzles.



## A faster, more intelligent way to build

We know what it takes to put up a high-rise building – we have years of construction experience ourselves. That's why we created SkyBuild™ – a self-climbing elevator that can be used for transporting work crews quickly, comfortably and safely during construction. With our reliable, high-speed SkyBuild elevator, your crews spend less time waiting and more time on the job than with a traditional external hoist.

Our unique design enables climbs to be executed quickly during off hours to avoid disrupting your schedule. Climbs can also be performed every time a new floor is added, giving your people access to the highest possible level during construction. And once construction is complete, SkyBuild converts into a SkyRise elevator for permanent use.

### SkyBuild benefits

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Give each of your workers 30 to 60 more minutes of productive time every day

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Increase your team's safety and comfort

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Ready when you are – 99 percent availability

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SkyBuild was the smart solution for us. It shortened our schedule and reduced our costs. The Otis team brought tremendous knowledge to the job.

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### Philippe Rouchette

Project Director, Tour Granite, Paris  
VINCI Construction, France







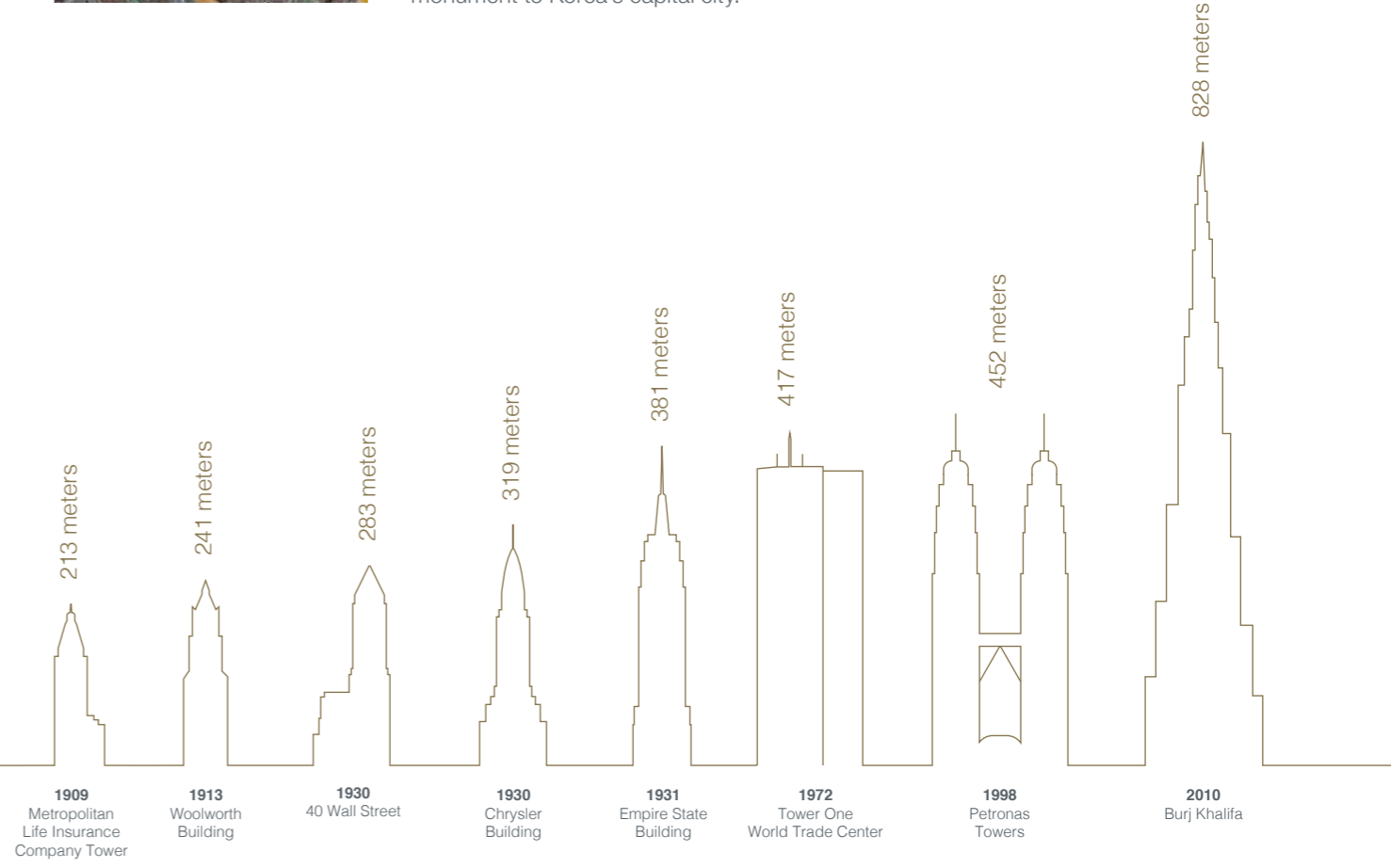
Upon their completion in 1998, Malaysia's Petronas Twin Towers became the world's tallest buildings – the first outside the United States to claim that distinction. And Otis was there, supplying 105 elevators and escalators, including 58 double-deck elevators. At 452 meters, the towers held the title until 2004 and remain the world's tallest twin towers.

## Mega-projects deserve a mega-team

Every SkyRise project has the support of our global projects organization, which supports our local and regional offices in more than 200 countries and territories. From start to finish, our dedicated experts collaborate with your team to keep things on track. Standing with them are nearly 1,500 Otis R&D engineers ready to solve any imaginable challenge.



It requires meticulous planning, a team of dedicated experts and knowledge of complex hosting technologies to get our elevator machines to the top of the world's tallest buildings. Given our extensive experience with such challenges, all went smoothly with the installation of our latest machine atop the Lotte World Tower in Seoul – Korea's tallest building at 555 meters. We're proud of the role we played in realizing the developer's vision – creating a monument to Korea's capital city.



### 8 out of 10

Developers and building owners have long relied on Otis to help bring their largest and most complex projects to completion. Since the turn of the 20th century, we've provided the elevators for eight of the 10 skyscrapers to have had the distinction of being, at one point, the world's tallest building. And just as our technology enables each generation to scale new heights, our process expertise enables each project to deliver on its vision in the most timely, efficient way possible.

# We keep your world moving

The completion of your SkyRise installation is only the beginning of years of safe and reliable performance.

Using advanced digital diagnostic tools, our engineers monitor your equipment remotely to identify and prevent issues before they arise. Our eService portal gives you instant access to real-time performance, maintenance and other critical information about your equipment.

We also understand that your building is unique and may require an even higher, bespoke level of service. That's why we created an Otis service offering for SkyRise. Specially trained senior technicians monitor every aspect of your elevator system, employing customized service procedures tailored to the unique characteristics of your building. Our mission is to ensure that your elevator continues to operate over the decades at the same level of peak performance as the day it was installed.

At Otis, our entire workforce is dedicated to just one thing – keeping your world moving.

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Service excellence isn't a slogan.  
It's how we do business.

**Tony Black**  
Senior Vice President  
Otis Service

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# Imagine. Build. Inspire.

For generations Otis has enabled architects and developers everywhere to imagine, design and build at the very top of the industry. As our premier high-speed, high-rise elevator system, SkyRise helps make your building a symbol of excellence for generations to come.

SkyRise offers a unique combination of flexibility in design, a superior passenger experience, industry-leading technologies, speed in construction, global organizational support and years of safe, reliable performance.

Ping An Finance Center, Shenzhen, China

Canton Tower, Guangzhou, China

30 Hudson Yards, New York City, USA

Allianz Tower, Milan, Italy

Shanghai World Financial Center  
Shanghai, China

Two International Finance Centre, Hong Kong



© Related Companies and Oxford Properties

Wherever you find the world's most iconic buildings, you'll find Otis.

Eighty years after installing the original equipment, Otis was selected to modernize the 68 elevators at the Empire State Building, which stood as the world's tallest building from its completion in 1931 until the topping out of New York City's first World Trade Center tower in 1970. The new Otis elevators transport 10 million office workers and building visitors each year.



**Otis Elevator Company** is the world's leading manufacturer and maintainer of elevators, escalators and moving walkways.

Founded more than 160 years ago by the inventor of the safety elevator, Otis offers products and services through its companies in more than 200 countries and territories, and maintains approximately 2 million elevators and escalators worldwide. Every day, Otis moves more than 2 billion people through the world's urban landscapes.

Otis is a unit of United Technologies Corporation (UTC), a leader in the global building systems and aerospace industries. For more information, visit [www.otis.com](http://www.otis.com). Follow us on Twitter @OtisElevatorCo.

