KONE'S MAGAZINE 1/2010 REDUCTION RECENTED TO THE STATE OF THE STATE OF

TAKING ELEVATOR TECHNOLOGY TO NEW HEIGHTS

> SUCCESSFUL PARTNERSHIPS

URBAN DENSITY IN TALL BUILDINGS

KONE a long

ome

The year 2010 is a momentous one for KONE Corporation. KONE was founded in 1910 as a tiny machine shop; and d's largest elevator has evolved in and escalate

As we KON throughs tha

sential elements of

1

of technological breakthe industry and are es-As urban areas continue to grow, the importance of improving the eco-efficiency

of our products and solutions has been steadily increasing. This is one area in which we have made tremendous ground in the past decade and our solutions are among the most efficient in the industry.

This year, we are also proud to be an official national partner of Finland's Kirnu pavilion at the Shanghai 2010 World Expo which begins in May. The World Expo's theme, 'Better City, Better Life', corresponds with KONE's vision of providing energy efficient and user friendly People Flow[™] solutions in an increasingly urbanized world.

On behalf of KONE, I thank you all for being an integral part of our development these past 100 years.

han Ale.

Matti Alahuhta President & CEO, KONE Corporation

CONTENTS 1/2010



SUSTAINABLE BUILDINGS How to find balance between the urbanization megatrend and sustainability.



COLLABORATION People Flow magazine takes a look at the necessary ingredients for a successful partnership.

20



10

REFERENCE CASE KONE played an integral part in facilitating the People Flow around the Yas Marina Circuit.



TRENDS Artificial intelligence is not an alien subject; it's a reality inside buildings to optimize traffic flow.

19

14

23



GUEST EXPERIENCE The world's largest floating hotel features KONE solutions.



SUSTAINABILITY KONE helps a school for guide dogs in France.

12

6



WORLD EXPO 2010 The Finnish pavilion will feature a one-of-a-kind elevator supplied by KONE.

People Flow is KONE's stakeholder magazine. KONE Corporation, Keilasatama 3, P.O. Box 7, FI-02150 Espoo, Finland, +358 204 751, www.kone.com Editor-In-Chief: Simon Barrette Editorial Board: Simon Barrette, Hiba Hidmi, Liisa Kivelä, Anne Korkiakoski, Charlotta Korkman, Christina Poulsen Published By: Sanoma Magazines Finland, Custom Publishing, +358 9 1201, www.yritysjulkaisut.fi, Marko Haikonen, Director Editorial Staff: Kimme Holapna, Manazine Editor: Shelly Nyovist: Paroducer - Antti Kangassaho Visual Consultant Penergaranhies: Tuukka Palmio and



Editorial Staff: Kimmo Holappa, Managing Editor; Shelly Nyqvist, Producer ; Antti Kangassalo, Visual Consultant Reprographics: Tuukka Palmio and Raimo Tommila Printed By: Lönnberg Print, Helsinki, Finland ISSN 1798-4246 Orders, addresses, feedback and story ideas: peopleflow@kone.com

100 YEARS OF SUCCESS

During these past 100 years as an industrial engineering company, KONE has been involved in businesses as diverse as textile manufacturing, medical technology and the design of hydraulic piping systems. The company's main focus, however, has always been the elevator and escalator business.

It all started back in 1910, before Finland was even a sovereign independent republic. A small machine shop which repaired and reconditioned used equipment opened in Helsinki. Over the years, KONE has proven its ability to adapt to a changing world. Stable ownership by four generations of the Herlin family has created a strong and supportive environment for continuous development.

KONE has designed and manufactured equipment for 100 years, proving to be a respected, global leader in the elevator and escalator industry.

Many activities celebrating KONE's centennial anniversary will be organized in conjunction with the World Expo in Shanghai from May 1st until October 31st, 2010.



READ MORE ABOUT KONE'S 100 YEARS: WWW.KONE.COM/CORPORATE/KONE_100_YEARS



Signalization series wins prestigious award

KONE has been awarded a 2009 GOOD DESIGN award for its sleek KONE Design Signalization series. The recently launched series offers timeless design and durable technology. The signalization panel enables the integration of guiding information, bringing usability to a new level. The panel can also be localized to accommodate the specific trends, styles, functions and regulations of different countries and regions.

"The KONE Design Signalization series represents a new perspective in modern elevator design. It is a bold jump from standard stainless steel signalizations to a new world of colors and unique graphics, which can match any kind of cabin design," comments **Anne Stenros**, vice president, Design, KONE.

KONE is the only elevator and escalator company to have ever received a GOOD DESIGN award in 60 years.

Vertical transport for 55,000 football fans



Excellent ride comfort, breathtaking view

KONE has won an order to supply 41 elevators and four escalators for Gate Towers in Abu Dhabi, United Arab Emirates. The project will feature 11 KONE MonoSpace® Special platforms, 27 KONE Mini-Space™ elevators, three KONE TransSys™ freight elevators as well as four KONE TravelMaster™ escalators. "Our main objective for the project is to provide solutions with a unique People Flow™ experience while offering residents and visitors excellent ride comfort," comments **Tarek Elnaggar**, regional director of KONE Middle East.

The Gate Towers are part of the Gate District development and sit at the entrance of Al Reem Island. The project features one 23-story residential tower and three 65-story residential and office buildings.

The towers will have a stunning presence on the island's skyline and are scheduled for completion in the second half of 2012.

KONE will deliver 39 elevators and 31 escalators to the National Stadium under construction in Warsaw, Poland. Considered the most modern football arena in Central Europe, the National Stadium will play host to the UEFA EURO 2012[™] European Football Championship.

The issues of convenient and safe flow of football fans within the facility as well as the possibility of their quick evacuation were top priorities. All requirements have been met with the installation of 16 KONE MonoSpace® and 23 KONE MonoSpace Special elevators, including four fire fighting elevators, 22 KONE EcoMaster® escalators inside and nine outside the building.

The National Stadium is slated to open in the middle of 2011; and construction costs will amount to nearly EUR 300 million. • Be they sceptic, activist, or just perplexed, people these days can scarcely avoid a discussion on climate change and its possible impacts. Part of the perplexity lies in knowing what and how to prioritize: how do we know what we need to concentrate on, if we are to truly combat global warming?

SUSTAINABLE BUILDINGS:

TEXT: CINDY KOHTALA PHOTO: COMPOA/DIETRICH WOLFFRAMM

PEOPLE FLOW | 7

400 BUILDINGS ACCOUNT FOR 40% OF ENERGY USAGE WORLDWIDE



rbanization is a key global megatrend presenting one of the biggest challenges to sustainable development. Understanding

and learning to guide our shifting urban patterns of living has become the priority for many planners and decisionmakers, something that can lead to solutions such as eco-cities. And since buildings account for 40 percent of energy usage worldwide, many believe that focusing on the design and energy efficiency of buildings themselves will make a significant contribution to reducing carbon emissions. Jan Klerks, research and communications manager at the Chicago-based Council on Tall Buildings and Urban Habitat (CTBUH), is one of a variety of experts working with the idea of efficient - while attractive – urban density as embodied in tall buildings.

BUILDING GREEN

AN

Klerks thoroughly understands the complexity of sustainable solutions. "Sustainability sometimes feels like trying to nail a jellyfish onto the wall," he concedes. "The moment you think you've thought through some sustainable policy, you might find yourself in a position in which unexpected counter effects offset the initial gains. It is a holistic, complicated and interactive system in which nothing moves independently." What, then, is the role of the Council? "We consider it an important mission of the CTBUH to find and support ways in which the design, development, con-

A ZERO NET ENERGY STRATEGY FOR BUILDINGS COULD NEARLY HALVE THE EXPECTED GROWTH IN ELECTRICITY DEMAND WORLDWIDE

struction, management and usage of tall buildings can contribute to a more sustainable society as a whole." Why the focus on tall buildings? "Densities allow for faster movement of goods, people and ideas. Tall buildings could play a substantial role in this."

According to Klerks, sustainable building is an evolutionary process. "It involves many little insights, inventions, initiatives and policies that make buildings gradually more energy friendly, more durable, and so on. Solutions are aimed towards reducing the use of energy, transportation costs and creation costs; and increasingly towards the creation of energy, carbon neutral development, and the like."

How do we know when we are making progress? Are certification systems like LEED® (Leadership in Energy and Environmental Design) Green Building Rating System and BREAAM (Building Research Establishment Environmental Assessment Method) useful tools? "Being visible objects in dense urban areas, tall buildings are ideal subjects for LEED and BREAAM certification, not only because of the size of development, but also for being able to become a present example of sustainable development. Especially for companies whose business is about intangible services (like financials), a sustainable policy is a good way to express their involvement and responsibility to the outside world."

What can we do about the infrastructure we already have? Is it worth modernizing our current building stock? "Given that most buildings have already been built, retrofitting existing buildings could have a far bigger impact than making new developments sustainable. The retrofitting plans of the Willis Tower in Chicago and the Empire State Building in New York are two instances of this in practice."

BALANCE AND COMPROMISE

Aiming for energy efficiency and optimal density in building always means looking at both inputs and outputs. The design of the structure has to balance the performance of the building

SUSTAINABLE URBAN SOLUTIONS

TEXT: CINDY KOHTALA PHOTO: ANTTI KANGASSALO

hile lowering the ecological footprint of our existing cities is a crucial priority that requires retrofitting solutions on a massive scale, much can be learned from the eco-city developments that are popping up on nearly every continent. Eco-cities (or suburbs or villages) can serve as a laboratory for all manner of sustainable urban solutions, and they are not plagued by the same challenges with lock-in that existing cities face. For and the needs of the client with the demands of the location within the urban and geographical context, the need for low or no unfavorable ecological impacts and the financial considerations - not to mention aesthetic and functional attractiveness. Technological innovations and guidelines help, but the peculiarities of local conditions and the need for a holistic approach considering the urban infrastructure complicate the process. Klerks explains further: "Urban density can be an opportunity, but there's also a danger in mixing the wrong ingredients. It takes a thorough process of urban planning to ensure typical urban functions don't get in each other's way and create unpleasant environments because of it."

LEARNING FROM NATURE

And what about the future of sustainable building? What does a 'zero net energy' building look like?

DENSITIES ALLOW FOR FASTER MOVEMENT OF GOODS, PEOPLE AND IDEAS. TALL BUILDINGS COULD PLAY A SUBSTANTIAL ROLE IN THIS.

Many experts expect to see increasing use of biomimicry techniques in architecture to more closely reflect the local environment. Klerks explains that in this kind of design, certain ecological characteristics can be used to the building's advantage, such as wind current and sun paths. "This is part of an ecological design process, in which one tries to incorporate existing flows into the design of the building, so they become an integral part of it."

Moreover, Klerks suggests that not only energy-efficiency and energysaving developments will continue to evolve, but the actual creation and sharing of renewable energy by individual buildings themselves is one promising route. "Energy could be more of a network industry involving many suppliers," offers Klerks. "This however requires quite a bit of technical development."

This kind of zero net energy strategy for buildings could nearly halve the expected growth in electricity demand worldwide, according to a study by McKinsey. With such a positive gain, an energy-neutral approach seems less a compromise than a necessity.

one, current cities are locked in to their likely decades-old zoning restrictions that separate workplaces and homes by vast distances and encourage urban sprawl. A smart eco-city can propose radical new approaches to master planning that facilitate low-carbon living patterns and the building of happy, safe communities.

WHAT IS AN ECO-CITY?

A typical eco-city project may emerge for a myriad of reasons: a region may

need to differentiate itself competitively through a zero-carbon strategy, it may need to address shifting urbanization patterns, as we see in the mass migrations of people from rural to urban areas in China, or it may need to react to burgeoning bottom-up demand for a higher quality life from the grassroots.

The entire system of the eco-city must be taken into consideration: its relationship to the countryside (for example, how and where food is sourced and transported), its buildings, its energy production, its modes of transportation, its pollution and waste. Ideally all inputs and outputs have no or low negative environmental impacts. In typical cradle-to-cradle thinking, waste equals food, so all biowaste is used as a biological nutrient and other waste such as plastics and metal is considered a technical nutrient that is fed back into the system. Renewable energy sources keep the city running. And building density is optimized. • KONE DELIVERED A TOTAL OF 41 ELEVATORS FOR THE OASIS OF THE SEAS CRUISE SHIP

A logistical achievement

Gone are the days when building cities is a land-based affair. Royal Caribbean International launches Oasis of the Seas, the world's largest floating hotel.

TEXT: RANDEL WELLS PHOTOS: OASIS OF THE SEAS AND KONE

ith well over 7,000 people on board, the Oasis of the Seas packs the entertainment punch of a bustling metropolis, such as a water park, a full-blown Broadway theater and the first ever 'Central Park at Sea' with 12,000 live plants.

PART EVOLUTION, PART REVOLUTION

Harri Kulovaara, executive vice president at Royal Caribbean Cruises Ltd., began dreaming of Oasis of the Seas in the 1980s. The first real step was taken while he was at Finland's Silja Line. "Silja Seranade was revolutionary in the cruise ferry business. At the end of the 80s, it introduced a promenade concept," he explains.

The pioneering idea behind Oasis of the Seas was to open up the center of the vessel. Getting natural daylight into the elevator banks, open-air neighborhoods and state rooms with balconies facing the center was critical to providing a better guest experience.

BEST ELEVATOR EXPERIENCE

"This is probably the most challenging context for elevators, with heavy traffic

in all directions," says **Robert Segercrantz**, director for KONE Marine. "Life never stops on a cruise ship; it goes on 24 hours a day."

"The logistics on a ship are exceptionally important to the guest experience," adds Kulovaara. "The elevators are really the key to everything we transport." This is especially true on Oasis of the Seas with its 16 decks and attractions spread out all over the ship. KONE delivered a total of 41 elevators which are hoisted by KONE EcoDisc® technology, using both KONE MiniSpace[™] and KONE MonoSpace® solutions. The company also supplied two escalators and three special access platforms for passengers with reduced mobility.

"We wanted to make sure we have a very smooth flow of guests and that they don't need to wait," adds Kulovaara. "A lot has been done to make sure that the intelligence built into the control systems really optimizes the utilization; and integrates in the best possible way the people and the elevator hardware."

INNOVATION THROUGH COOPERATION

"We have developed a very strong relationship with KONE," remarks Kulovaara. "Building this kind of ship would not have been possible without a very long and productive partnership."

A simple yet very effective innovation that came out of the cooperation with KONE was the elevator gangway button. Depending on the port, pushing the gangway button brings passengers to the correct level automatically. This is a first for cruise ships.

Escalators were also added to Oasis of the Seas, rare equipment for cruise ships. These work to help speed up the flow of passengers as they board or disembark. "To further help passengers, elevator modes are synchronized with the guest communication system. This allows, for example, disembarking instructions to be displayed on the LCD screens inside the elevators," says Kulovaara.

ALLURE AND BEYOND

"I think Oasis is a historic project as well as a technical masterpiece. It is a result of tremendous collaboration between wonderful minds of the world, technical skills and the companies who have a history of working together."

Allure of the Seas, the twin sister of Oasis, will be launched towards the end of 2010. \bullet



OASIS OF THE SEAS

Crew members	2,165
Passengers at	
double occupancy	5,400
Meters long	361
Meters wide	66
Meters above sea level	
(highest point)	72
Gross tonnage 22	25,282
Gross tonnage 22 Man-years to construct	25,282 .8,000
Gross tonnage 22 Man-years to construct Passenger elevators	25,282 .8,000 24
Gross tonnage 22 Man-years to construct Passenger elevators Service elevators	25,282 .8,000 24 17
Gross tonnage 22 Man-years to construct Passenger elevators Service elevators Escalators	25,282 .8,000 24 17 2
Gross tonnage 22 Man-years to construct Passenger elevators Service elevators Escalators Easy-access (impaired	25,282 .8,000 24 17 2

KONE CASE

RACING UNDER TWILIGHT

TEXT: SHELLY NYQVIST PHOTOS: YAS MARINA CIRCUIT

he latest edition to the world of motorsport has combined cutting-edge innovation with Middle Eastern cultural inspiration.

Yas Marina Circuit plays host to the Formula 1[™] Etihad Airways Abu Dhabi Grand Prix each November, as well as to numerous other motorsport events. The facility is touted as the most state-of-the art racing circuit in motorsport history.

German Sebastian Vettel, driving for Red Bull Racing, finished first during the season-ending inaugural Abu Dhabi Grand Prix held from October 30th to November 1st, 2009.

KONE solutions were installed in all passenger stands, the pit and paddock buildings as well as in all seven hotels in and around the circuit.

Approximately 50,000 spectators can view the action from the comfort of the covered grandstands and VIP facilities.

The Yas Marina Circuit facility is situated on an island east of Abu Dhabi and is just a 25-minute drive from the city center. •

YAS MARINA CIRCUIT

PROJECT AREA: 161.9 hectares

KONE SOLUTIONS

KONE ELEVATOR UNITS:160KONE ESCALATOR UNITS:2KONE SERVICE DURING A GRAND PRIX WEEKEND:24/7 with 22 KONE technicians on site

50,000

OVER 50,000 SPECTATORS CAN VIEW THE ACTION AROUND THE CIRCUIT Understanding customer needs drives the KONE Technology team to deliver products and solutions that are taking elevators and escalators to new levels. Ask **Jussi Oijala** to look inside his crystal ball to see where elevator and escalator technology is heading, and you begin to see a world of increasing integration. **TEXT:** SATU JUSSILA **PHOTOS:** SAMI KULJU AND KONE

Leading through

The user experience will become even more heightened," he discloses. As head of the KONE Technology and R&D team, Oijala is in charge of about 600 profession-

als in seven countries. He also manages the KONE Solution Creation Process, where, as he explains, "we make sure that our solutions are not only competitive, but also fulfill and exceed our customers' expectations."

According to Oijala, what the future will hold is a world where elevators and escalators are closely integrated into other building systems. At its core, this means planning the People Flow[™] inside a structure so that entering and exiting is fast and easy. It also means that elevators use artificial intelligence to optimize traffic.

"Artificial intelligence includes creating algorithms so that our equipment learns the traffic patterns in a building: when people come to work, when they go to lunch and when they leave at the end of the day. If the building use changes, the equipment learns the new traffic patterns to continue to minimize wait times," says Oijala.

Look for traditional push-button elevators with what Oijala calls 'dumb technology' to become a thing of the past. Elevators and escalators will know where we are and where we are going – and will be linked even closer to the use of the building.

FASTER WITH DESTINATION CONTROL

Minimizing wait times is a major part of improving People Flow inside buildings. Another of KONE's innovations use 'destination control' to know the floor a passenger is traveling to before he or she enters the elevator car. "With the KONE Polaris[™] destination control system (DCS), a passenger gives his or her destination already on the source floor, rather than inside the car," explains Oijala. The destination user interface also provides new features for passengers and building occupants. "A destination control system can be integrated with the access control system to enable an automatic call when a person reaches the access gate. This improves traffic handling performance and makes using elevators even more convenient for passengers," Oijala adds.

The system's first use was in the Galileo Tower in Frankfurt, Germany, in 2003. There, the average wait time is 10 seconds. As a result of this success, KONE won a contract to provide Polaris to two other similar buildings in downtown Frankfurt. One such project is the new Tower 185 skyscraper which will feature 28 KONE elevators; all linked to a destination control system.

KONE has received other DCS orders in recent years as well. The CB31 Tower (formally known as the AXA Tower) in Paris' La Défense district is currently under renovation. Modernization will include 18 elevators all equipped with a destination control system, which will





MONITORING ELEVATORS AND ESCALATORS

ONE E-Link[™] is used in the Beijing Capital Airport to remotely monitor the transport of over 40 million passengers annually to and from their gates. With over 192 elevators and escalators in operation inside the terminals, the Beijing Capital Airport linked its equipment to the KONE E-Link monitoring system to guarantee a high level of service and productivity.

"E-Link allows facility managers to see equipment status, demand, traffic performance and availability from one central location. This information helps managers to adjust the traffic movement inside buildings to maximize People FlowTM," says senior vice president for technology, **Jussi Oijala.** • 355 REGENERATIVE SYSTEMS CAN RECOVER UP TO 35% OF THE TOTAL ENERGY USED BY AN ELEVATOR SYSTEM

offer over 25 percent more capacity within the existing shafts.

The first ever double-deck elevators with integrated DCS were provided for the Broadgate Tower project in London. Double-deck elevators consist of two elevator cars in the same hoistway, one on top of the other. This unique DCS technology creates significant space savings and increases traffic handling capacity. Passengers simply indicate their destination floor before entering the elevator and are then directed to a specific elevator, which takes them to their destination with the fewest intermediate stops.

OPTIMIZING TRAFFIC MANAGEMENT

For complex high-rise developments and commercial properties, the latest technologies look to make traffic management an easier task for facility managers. Broken down in simple terms, this involves providing an easy-to-use system operating from a standard personal computer that provides real-time information about how elevators are performing and their exact location. This helps to detect problems earlier and re-direct traffic, if needed.

"KONE E-Link™ is an elevator monitoring system that provides diagnostic information about elevator condition

LOOK FOR ROLLOUT OF KONE IDE300™ TO FIRST ENTER MAJOR MARKETS IN 2010. and group performance. It's ideal for a complex building structure with demanding traffic needs," says Oijala. E-Link also provides some useful control features. "You can create an automatic scheduler that disables the use of certain floors, such as the garage, during certain time periods."

THE TECHNOLOGY IS NOW

Walking into a structure will be easier than ever before – forget about unlocking a door with your hands. We will immediately know where the elevators and escalators are located, and we will enter the equipment with the doors open and waiting. Better yet, the elevator will know which floor to take us before we enter the car. And we will be guided through internal doorways seamlessly. Again, no closed doors and keys – the door will open automatically based on communication received when we entered the elevator.

While this may sound like science fiction, in actuality, a good portion of this technology is already in use. First piloted in a residential apartment building in Arabianranta, a new development in Helsinki, Finland, KONE IDE300™ is a system that integrates automatic building doors and elevators. Anyone who has ever gone home with their hands full of shopping bags can appreciate the benefits of this technology. "You enter the building not by opening the door, but instead by placing a card reader into a device that opens the front door," says Oijala. Next, the elevator is automatically sent to the entrance floor, the elevator doors open, and, when a person enters the elevator, the car call to the destination floor has already been created. "We have yet to integrate this technology so that the person can enter his or her apartment without keys, but this may come in the future," smiles Oijala.

UNDERSTANDING LONG-TERM NEEDS

One of the key drivers in innovation is eco-efficiency, which challenges KONE to deliver equipment that consumes less energy. Here, the company has set an ambitious target. In 2009, KONE released a range of elevator offerings that reduced energy consumption by 30 percent, compared to its then-current volume models. "KONE is targeting an additional 20 percent energy-consumption cutback in its volume elevator offering, compared to our previous offering," says Oijala. Volume elevators refer to the standard elevators in KONE's product line.

Advanced elevator technology offers major opportunities. To really deliver, though, systems need to be energy-efficient; as well as able to handle power surges and not be affected by or affect other electrical equipment. KONE was the first company to offer regenerative systems, which can recover up to 35 percent of the total energy used by an elevator system. A KONE regenerative drive is designed to work in tandem with a KONE EcoDisc® motor, which serves as the generator; the regenerative drive thus recovers the energy and converts it into 'clean' regenerated electricity for use in other applications, such as lighting or to perhaps drive other elevators.

But while technology is interesting to talk about, for Oijala, job satisfaction comes from understanding what a customer needs and developing solutions that build a long-term relationship. "We have to focus not only on new products and technologies but also understanding logistics, installation and maintenance of our equipment. We know we've gotten it right when we win a contract and keep a customer satisfied for many years," says Oijala.

'CLEAN' POWER FOR AN ENERGY-CONSCIOUS WORLD

ONE set the standard in energy-efficiency for elevators used in high-rises, and now those same benefits are brought to low and mid-rise buildings, too. Regenerative technology offers energy-saving solutions for high-speed, mid-range and low-speed elevators. Regenerative drives convert the excess energy generated when full cars descend or empty ones ascend into electrical current and feed it back into a building's electrical network or grid. This eliminates the

braking energy that normally goes to waste and has to be dissipated using braking resistors, which in turn need to be cooled or provided with ventilation. KONE drives also offer extremely accurate stopping; and can be programmed to match a customer's specific acceleration/jerk values and target ride comfort very closely. KONE regenerative solutions help reduce a building's net energy consumption and provide considerable cost savings over an elevator's lifetime.

IN FOR A SMOOTH RIDE

KONE Modernization Overlay promises high usability and traffic capacity as well as eco-efficiency and minimized disturbances.

TEXT: MARJA BERISA PHOTO: KONE

hen it comes to capacity, elevator modernizations can be tricky. The worst case scenario is decreased flow capacity and out of service elevators. There is a solution, however.

KONE Modernization Overlay is a temporary high-level group control tool for use during modernization. Its basic function is to allocate landing calls between the new, modernized elevators and the old elevator system. The overlay gives priority to the new elevators, maximizing the use of elevators with the highest People Flow[™] capacity and lowest energy consumption.

Passengers use common landing stations - or destination operating panels (DOP) in the cases for destination control systems - for calling both old and new elevators. The overlay may even increase the People Flow during renovation. **Tony Loftus**, Service Business Modernization Solution Manager, explains the advantage:

"The reduction in energy consumption has two main ingredients. First of all, if the elevator group is modernized without overlay, then during the upgrade period the old and the modernized elevators act as two independent groups or systems. Human behavior is such that in most cases, a passenger will press the buttons on both sets of call buttons and take the first elevator that reaches his floor. So, in practice, the second elevator travels unnecessarily with the overall system using twice the energy to respond to one elevator call. The modernization overlay eliminates this occurrence."

Another energy saving factor is, of course, inherent in the new and more efficient elevator itself.

EASY DOES IT

"The precedent for the new overlay system dates from the late 1980s and early 1990s. That's when KONE had a system based on relay logic. This was helpful during modernizations up to about the mid-90s, but after the introduction of the microprocessor and micro chips, things changed," Loftus explains.

"With the new modernization overlay, we can modernize almost all elevator systems regardless of who the manufacturer is," he continues.

The installation time is short, thanks to the overlay's modular component structure: KONE group controller, UPS (uninterruptible power supply) and communication networks. The system can be installed even during one weekend. This ensures minimized out-ofservice times, which are often measured in mere hours.

Each elevator in a group is modernized in turn, adding to the number of new elevators. The KONE Modernization Overlay increases the People Flow as more elevators are completed. Before modernization of the last elevator, the overlay is removed and the final KONE group controller takes full responsibility for call allocation.

PEOPLE FLOW | 19

Training guide dogs for the blind costs upwards of EUR 15,000 per dog and the drop-out rate for the dogs over the course of the training program can be as high as 30 percent. KONE helps makes a difference with an escalator. TEXT: PAUL MCDONAGH PHOTO: JIM CRAIGMYLE/CORBIS

HELPING THEIR MASTERS MOVE SAFELY

ONE's foundation in France has supported the work of the 'École des chiens guides d'Ile-de-France' – a school for guide dogs in the Paris region, by providing financial support for training dogs to use escalators; part of the essential training for a dog to aid the mobility of visually impaired people.

The school was established in 1984, and since then the dogs and their trainers have had to face the better part of an hour's journey to a shopping center to practice with escalators. Not only was this stressful for the dogs, it also meant that training sessions were limited to Sundays as this was the only time the shopping center was closed to the public.

In the spring of 2009, KONE supplied an escalator to the center at a discounted price and provided direct financial assistance to train the dogs. Having their own escalator has increased the school's training capacity from 15 to about 50 dogs a year.

According to Mme Louisette Yzerman, vice president of the school, the dogs find escalators a bit daunting and thus have to be trained to use one. "There are two areas where dogs need training with escalators. The first is getting onto one. Dogs do not like getting onto something moving, and the noise and vibration also disturb them. The second area is making sure the dogs do not guide their companions underneath escalators or staircases in shopping malls and other public areas. A dog needs a lot less headroom than a person, and the dogs have to be trained not to pass beneath escalators and stairs at a point where there is insufficient height for a person to pass safely as well."

Escalator training lasts fifteen minutes twice a day and at the end of a week, the dogs can use one; by the end of a month, they are ready to go to shopping centers and use escalators in a public place without any problems.

DID YOU KNOW?

- From 2-12 months, a puppy lives with a host family and learns how to adapt to various environments
- After 12 months, the dog goes to a training center; schooling takes 6-8 months to complete
- When a dog is given to its service partner, it responds to 50 commonuse commands
- At the age of 9 or 10 years, the dog usually 'retires' and can live with the owner or a host family



From left to right: Sam Weatherall, Darren Croghan, Chris Plummer and Sherif Fayek



A WINNING PARTNERSHIP

One can only imagine how complex the construction of a 53-story skyscraper can be. Add in a five star hotel, a spa, some luxury residences and the 183 Wellington Street building has all the elements for one very challenging project. People Flow magazine takes a look at the necessary ingredients to make a partnership successful between the project's general contractor, EllisDon, and KONE.

TEXT AND PHOTOS: SIMON BARRETTE

ith its urban limestone and sapphire glass structure in Toronto's downtown financial and enter-

tainment district, the 183 Wellington project promises to be one of the key landmarks on Toronto's attractive waterfront skyline.

This impressive building will be equipped with 15 KONE MiniSpace[™] elevators and 4 service elevators, which will be responsible for ensuring the smooth and safe flow of people inside the building. Catering to various customers such as hotel and spa guests as well as residents, the building will include several elevator groups and landings.

Apartment residents will have their own exclusive lobby and elevators; some elevator landings will offer direct access to a residence. One elevator even has its machine room and controller situated beneath the actual elevator shaft.

COMMUNICATION IS KEY TO RELATIONSHIP

For the past 2 years, KONE has been working alongside general contracting company EllisDon, one of North America's largest construction contracting companies, to ensure that once the building is ready, customers will be able to travel smoothly, safely and quickly between the skyscraper's 53 floors.

But what are the musts for a contractor when dealing with an elevator company on such an imposing project? **Darren Croghan**, of EllisDon and responsible for the 183 Wellington project, believes that the transfer of information is crucial in a project of this magnitude.

"It all comes down to good communication, which boils down to trust. In a huge project like this, there's bound to be obstacles along the way and things will need to be solved quickly. Nobody wants surprises in this business, because they usually end up costing time, money and resources to fix. By keeping



the communication channels open, we are able to solve issues together, which make the entire process much smoother," comments Croghan. "We might be two different companies, but ultimately we have formed a team with KONE. We work jointly towards the same goal and it has worked out to be a great partnership between both companies."

According to Sherif Fayek, KONE Canada's senior vice president of Business Development, this is something that companies in the elevator industry have sometimes overlooked in the past. "Elevator companies typically do not have the best communications practices, but we want to change that. I believe KONE is making an effort to be a better communicator, not only through our daily verbal conversations with customers but also with improved processes and tools." Fayek adds, "Both our KONE eOptimum web-based reporting system and our field mobility program are core examples where we can add direct value to our customers' operations regardless if they are a multimillion contracting corporation or a smaller facility management firm."

ADDING UNIQUE VALUE TO THE MIX

When asked what the key elements are behind a successful partnership, Fayek agrees with Croghan on the importance of communication, and also underlines the importance of adding value for customers.

"KONE and EllisDon worked together right from the start. We have a dedicated team that is devoted to adding value to the partnership and to the success of this job. Such collaboration from the get-go enabled us to get the best possible outcome and to see how we could optimize EllisDon's operations on the construction site," explains Fayek.

For the project, KONE designated a specific project manager as well as an installation site manager in order to facilitate the exchange of information between both companies. This ensured that everything went according to schedule during construction. In fact, KONE's installation manager was allocated an office on the construction site.

"By having KONE's **Sam Weatherall** on-site during construction, we were able to be in constant contact with the contractor and their workers," says **Chris Plummer**, KONE project manager for the 183 Wellington Street project. "We were able to have frequent meetings with the contractor and we were even able to solve a few of their logistical problems by offering our expertise in elevators for construction time use."

"We knew that this job would involve difficult and complicated aspects. But with extensive communication and planning, they became non-events and everything progressed flawlessly. At the end of the day, the most important thing for the customer is that their operations go smoothly and on schedule," sums up Plummer.

> The 183 Wellington Street project is in the heart of Toronto's entertainment district and will feature both hotel suites and luxury residences. Photo: Design Architect: KPF, Architect in record: Page+Steele Architects





KONE IN TORONTO

KONE CANADA is a significant supplier of innovative solutions for building projects which make up a considerable part of Toronto's skyline.

1) TORONTO will soon have an instant landmark. The 38-story Festival Tower features an interesting combination of high-end residential condominiums and office space. The 'Bell Lightbox' is the tower's 5-story podium which will be home to the Toronto International Film Festival (TIFF). The building is designed by KPMB architects in association with Kirkor Architects and Planners. KONE supplied 8 units in total, including 4 KONE EcoSystem MR mid to highrise elevators and 3 KONE MonoSpace® platforms. Photo: Daniel's Corporation

2) TORONTO'S coveted waterfront is home to the Tedco Corus building, the new headquarters for Corus Entertainment, one of Canada's largest media and entertainment companies. The 7-story project has been built to LEED Gold standards and consists of 565,000 square feet of office and retail space. The Corus building was designed by Diamond and Schmitt Architects. KONE supplied 10 units in total, including 8 KONE EcoSystem MR mid to high-rise elevators. Photo: CICADA Design

3) ONE OF CANADA'S leading telecommunication companies, TELUS, is the anchor tenant of the Telus Tower, located in the downtown area of Toronto. The 30-story office building features future-friendly technology and will be a leading example of environmentally sustainable design in its pursuit of LEED status. KONE supplied 15 KONE MiniSpace[™] and 2 KONE MonoSpace[®] elevators. ● KONE ramps up its involvement for Shanghai's 2010 World Expo as official national partner for Finland's 'Kirnu' pavilion.

Elevator and exhibition piece

ONE will provide a one-of-akind elevator inspired by the basic elements of Finland's landscape and four seasons. The KONE Lantern elevator, traveling vertically across the pavilion's three floors, will be a highly visible and integral part of the Finnish pavilion as an exhibition object.

Specially designed to replicate the effects of a Chinese lantern, this unique elevator will change the way people

look at elevator design. The custombuilt cabin will include handmade ceramic artwork and semi-transparent glass as well as feature the latest in Radio Frequency Identification (RFID) technology which will enable VIP guests to access the top floor of the pavilion.

KONE will supply 59 elevators and 34 escalators for 21 pavilions involved in the 2010 World Expo.

Held between May and October 2010, the World Expo in Shanghai is expected to attract over 70 million visitors from around the globe. Over 200 countries and international organizations will take part as exhibitors, marking this World Expo the largest in expo history.

FOR MORE INFORMATION ON KONE AT THE WORLD EXPO, VISIT WWW.KONE.COM/CORPORATE/KONE_100_YEARS

Dedicated to People Flow[™]

÷

斮

詂

<u>nia</u>

1100

19.00

1990

nilin

MAND

hin.

1119

8008

......

1

2

LANU





Better life for people in cities.

Every city is unique – as are the buildings in them, and the people using those buildings. The needs of an office building differ greatly from those of a shopping center, metro station, or residential building. At KONE, we have decades of experience in creating People Flow™ solutions to meet the specific needs of each building and its users. We believe this approach is the key to moving people smoothly, safely and comfortably around the cities of today – and the megacities of the future.

www.kone.com



