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Generation
revolution.
Innovations affecting change.

engineering. tomorrow. together.
Providing a better future with our mobility solutions.

By 2050 two-thirds of all people will live in cities. To ensure their quality of life and promote efficiency in these urban agglomerations, resources will need to be used more efficiently, transport systems will need to be more intelligent, and technologies more intuitive. From the perspective of global sustainability, urban infrastructures and, in particular, energy, buildings and mobility are essential, which is why our innovations also focus on these components.

At thyssenkrupp Elevator we are continually working on developing numerous mobility solutions daily, to further promote the green technology revolution. Here you can discover how we address the challenges of the future – with four examples from our innovation pool that are setting new standards throughout the industry.
With us the sky’s the limit.

Unrivalled research and development.

Ongoing urbanisation and the steadily growing demand for architecturally ambitious building complexes, mean our industry needs to be able to provide new, even more compact and faster mobility solutions at all times, representing one of the biggest challenges of our time: how do you get people from A to B as efficiently, quickly, safely and comfortably as possible? As of 2017, solutions to these challenges will be developed in the thyssenkrupp test tower in Rottweil.

The 246-metre structure has been designed to test and certify new mobility solutions. Our test tower therefore helps to shorten the development period associated with future buildings and buildings already under construction all over the world. With twelve shafts and speeds of up to 18 m/s, the tower offers unprecedented opportunities for solving upcoming challenges.

The test tower also represents two real highlights for the region: on the one hand, Germany’s highest public visitor platform, which on a clear day at 232 metres provides a 360° panoramic view as far as the Swiss Alps, and, on the other, the fibreglass tower shell, which provides constantly changing lighting effects, reflections and allows sunlight to reach the tower interior.

<table>
<thead>
<tr>
<th>Height: 246 metres</th>
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<tr>
<td>Architects: Helmut Jahn, Werner Sobek</td>
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<td>Speeds: up to 18 m/s (64 km/h)</td>
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<td>Planned opening: 2017</td>
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Additional information at: http://testturm.thyssenkrupp-elevator.com/en
Pioneering. For the entire industry.

The horizontally moving elevator.

thyssenkrupp is one of the leading companies revolutionising elevator technologies and services. 160 years after its launch, thyssenkrupp has reinvented the elevator by replacing the cables with linear motors.

This also represents the birth of many innovative products such as our MULTI® system, which is ringing in a new era of elevator technology and thus revolutionising building construction all over the world. With the possibility of vertical and horizontal transport technology, buildings can be even more creative, user-friendly and taller.

The linear drive and guide rail can be turned 90°, thanks to the innovative MULTI® switching system and the linear motor technology, which was developed for the Transrapid magnetic train.

Link to microsite:
https://multi.thyssenkrupp-elevator.com/de
An all-rounder on every level.

Numerous technologies were combined to create the MULTI® system – the magnetic linear drives of the Transrapid magnetic train meet with the Destination Selection Control of our TWIN® system, powerful mechanical brakes and an innovative rail switch system. The result is maximum safety, unrivalled flexibility and a whole new level of efficiency. The MULTI® prototype, which is already in the development phase, will be prepared for market in our elevator test tower. Paving the way for use in real applications from 2019.

MULTI®.

The benefits at a glance:

- **Much shorter waiting times**: Thanks to multiple MULTI® cabins in the same elevator shaft, passengers never have to wait longer than 15 to 30 seconds for the next elevator.
- **Reduced space requirements**: The taller a building is, the more space conventional elevators require. MULTI® can hold several cabins in a smaller number of shafts, reducing space requirements by up to 50% and increasing transport capacity by at least the same amount.
- **Focus on safety**: Elevators are already one of the safest modes of transport and MULTI® is no exception. The cabin’s multi-drive, the braking system and the tried and tested safety monitoring system lifted from our TWIN product ensure up-most passenger safety.
- **New height and design options**: Thanks to the cable-free system, architects and developers no longer have to worry about the elevator shaft height and vertical direction in their designs, as MULTI® accommodates design options in just about any direction.
- **Much lower weight and smaller dimensions**: We have drawn on our expertise in lightweight construction and integrated new, lightweight carbon composites to reduce the weight of the MULTI® cabin and doors by up to 50%. The lack of cables and counterweight also reduces the dimensions of the elevator system significantly.
Next-generation service.

Over twelve million elevators around the world carry out seven billion trips a day, transporting more than a billion people. But the fact is these elevators are out of service 190 million hours a year due to maintenance.

MAX significantly improves availability and considerably increases the efficiency of elevators. As the first cloud-supported maintenance solution, MAX facilitates predictive service, meaning real-time diagnostics reduce elevator downtime substantially. Remote diagnostics also ensure technical defects are identified before they lead to problems, thus ensuring service technicians are informed early on, when for instance, consumables and old components need to be replaced. MAX aims to deliver maximum reliability, availability and efficiency.

Maximum availability.
At all times.
MAX.

A system with a big future.

MAX represents a revolution for the elevator industry. Data-driven maintenance technology can reduce elevator downtime by up to 50%.

MAX gathers and sends real-time data from the connected elevator to an intelligent web-based cloud, whilst complex algorithms calculate the remaining service life of important components and systems. Max’s high-quality service impresses elevator operators, keeps service technicians up to date and satisfies passengers. An all-round clever maintenance system designed to benefit everyone.

The benefits at a glance:

- **Maximum availability and reliability**
  MAX identifies maintenance issues before they occur, thus significantly increasing the availability of your elevator.

- **Longer system service life**
  Real-time analysis provides our monitoring centre with maximum technical information, facilitating proactive maintenance and increasing the system’s service life.

- **Optimised service**
  Real-time information about upcoming repairs can minimise unpleasant and inconvenient surprises such as elevator downtime.

- **Reduced downtime**
  Highly efficient elevator technology can reduce downtime many times over, which in turn optimises transport structures and ensures an uninterrupted flow of people.

- **More time, less stress**
  Short waiting times, seamless transport, reliable timing – a building featuring a MAX network offers noticeable benefits.

[Max's high-quality service impresses elevator operators, keeps service technicians up to date and satisfies passengers. An all-round clever maintenance system designed to benefit everyone.]

[Collected data] [Precise diagnostics] [Foresighted intervention] [Truly revolutionary elevator maintenance]

Link to microsite: https://max.thyssenkrupp-elevator.com/de/
7,300 passengers.
Per hour.

On the moving walk of the future.

Longer, faster, more efficient – the new ACCEL® transport solution has managed to increase urban mobility to a new level. With a total length of up to 1,500 metres and top speeds of 12 km/h for passengers who continue walking on the pallet band, up to 30% more passengers can be transported than with conventional moving walks. That’s equivalent to 7,300 people in just an hour of constant use.

Particularly in high-traffic areas such as airports and metro stations, ACCEL can prevent waiting times and boost convenience significantly. Due to increasing urbanisation, the cities of the future will require these more efficient transport solutions.

Once passengers step on, the moving walk accelerates gently from the normal speed of 2.35 km/h to 7.2 km/h and then reduces the speed at the end again. This is made possible by an overlapping pallet concept which, based on the revolutionary linear motor technology of the Transrapid system, triples the original size of each pallet during the journey.

Speed: 7.2 km/h (max.)
Length: 1.5 km (max.)

Additional information at: http://accel.thyssenkrupp-elevator.com/accel/