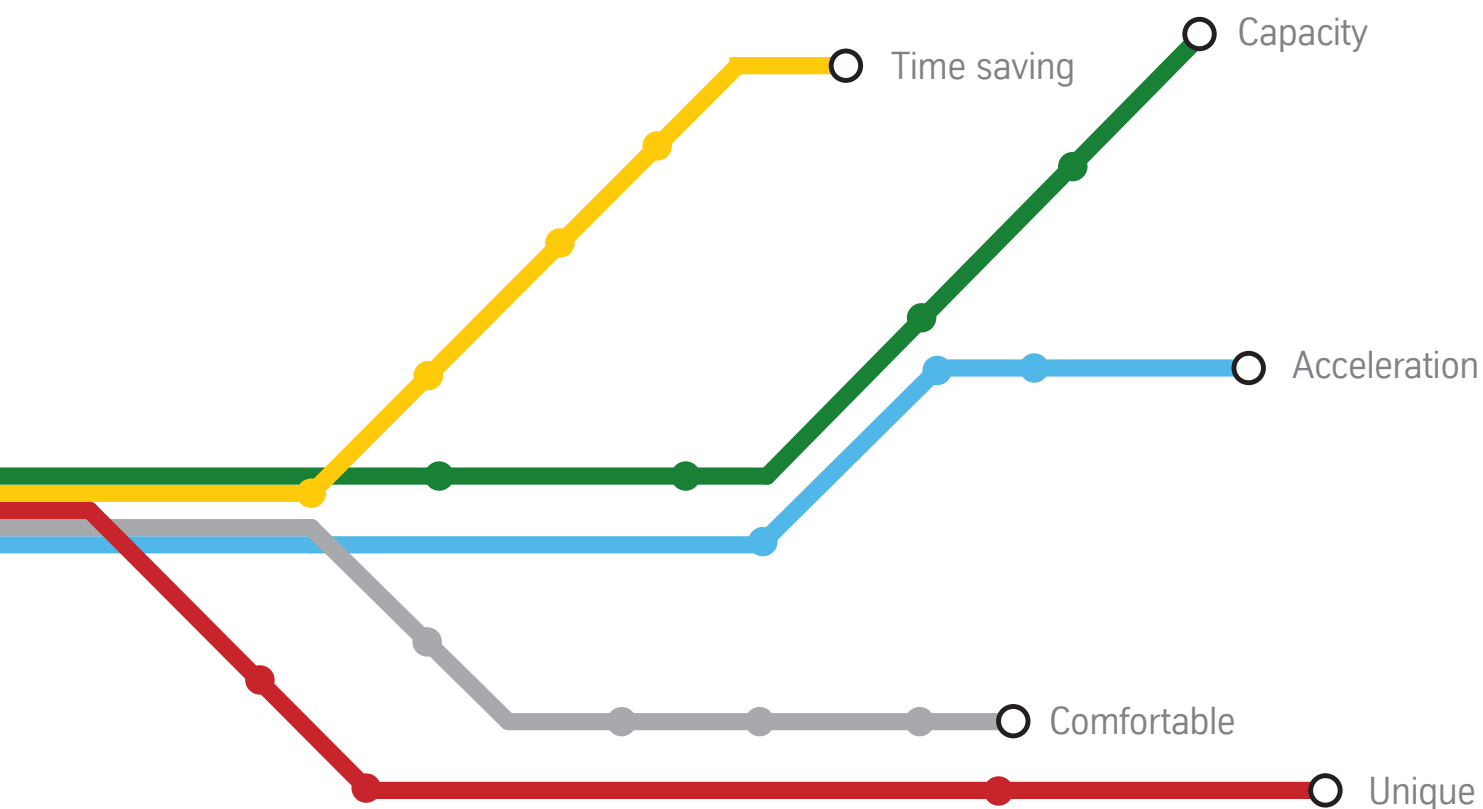


ACCEL

FOSTERING URBAN MOBILITY



ThyssenKrupp Elevator



ThyssenKrupp

ACCEL

FOSTERING URBAN MOBILITY

ThyssenKrupp ACCEL provides an efficient solution to the dominating global challenges of urbanisation - alleviates traffic congestion by improving access to metro stations and attracting up to 30% additional passengers. In airport terminals, it can cut current transit times between gates by two-thirds.

A new transportation system

Poised to optimize current transportation links in cities, ThyssenKrupp ACCEL offers high-capacity transportation for short distances. Capable of carrying 7,300 passengers per hour per direction in a permanent flow at speeds of 7.2 km/h, or up to 12 km/h for passengers who continue walking while on the belt, the new transportation system is far more than a regular moving walkway.

ACCEL ensures commuters in cities experience the ultimate in modern ride comfort while reducing their time spent on commuting to work every day. It is passenger friendly, has no waiting times at stations, and does not require any entry barriers. Passengers use it as a simple continuation of walking, just much faster and with no added effort.

ACCEL is easy to implement in cities and in airport terminals as it does not require major construction work - a base depth of one metre is all it requires. It thereby eliminates the need to construct new metro stations or complicated underground links to increase the reach and connectivity of existing metro networks.

For both metro and airport operators, ACCEL represents the possibility of having a transportation system capable of moving as many passengers as a typical fully automated cabin system, but one which is easier to operate and maintain, and does not require large maintenance teams and complex instructions.

ThyssenKrupp technology

ACCEL is composed of a band of pallets, similar to a regular moving walkway, but with game-changing technology beneath the surface. It incorporates the revolutionary linear motor technology of the magnetic train Transrapid. The band is built using the overlapping pallet concept that expands the original size of each pallet by three times, enabling the acceleration movement. Each pallet is equipped with its own magnet, propelled by linear motors installed in fixed positions.

ACCEL was developed by the ThyssenKrupp Elevator R&D Centres, with the support of the ThyssenKrupp Transrapid project unit and key suppliers such as Prodrive, Tecnotion, Beckhoff.

High speed

- Max. speed of 2 m/s
- Time-savings up to 70%

High capacity

- 7,300 pphpd
persons per hour/direction

Continuous movement

- No waiting time/spaces
- No control rooms

Easy fit

- Low construction cost
- Clever layout

Easy use

- Safe and comfortable ride
- No instructions required

Unique technology

- Accelerating speed
- Proven pallet/handrail systems
- Transrapid technology

High quality product

- High-class materials
- Superior engineering

Future demands

- A metro station at less than 600 m to any citizen
- New distances up to 1,500 m

How does ACCEL work?

ACCEL enables effortless movement between destinations up to 1.5 km apart, without having to wait at stations or even board and disembark vehicles. Passengers step onto the belt at normal walking speeds of 0.65 m/s (2.35 km/h), accelerate smoothly up to 2 m/s (7.2 km/h), and then decelerate back to normal walking speeds before leaving the system.

| | |
|------------------------------|-------------------------------------|
| SPEED | Up to 2 m/s (7.2 km/h) |
| CAPACITY | 7,300 passengers/hour per direction |
| LENGTH | Modules from 100 to 500 m |
| PALLET WIDTH | 1,200 mm |
| TOTAL WIDTH IF BIDIRECTIONAL | 4,860 mm |
| DEPTH | 980 mm |
| CLIMATE CLASS | Indoors |

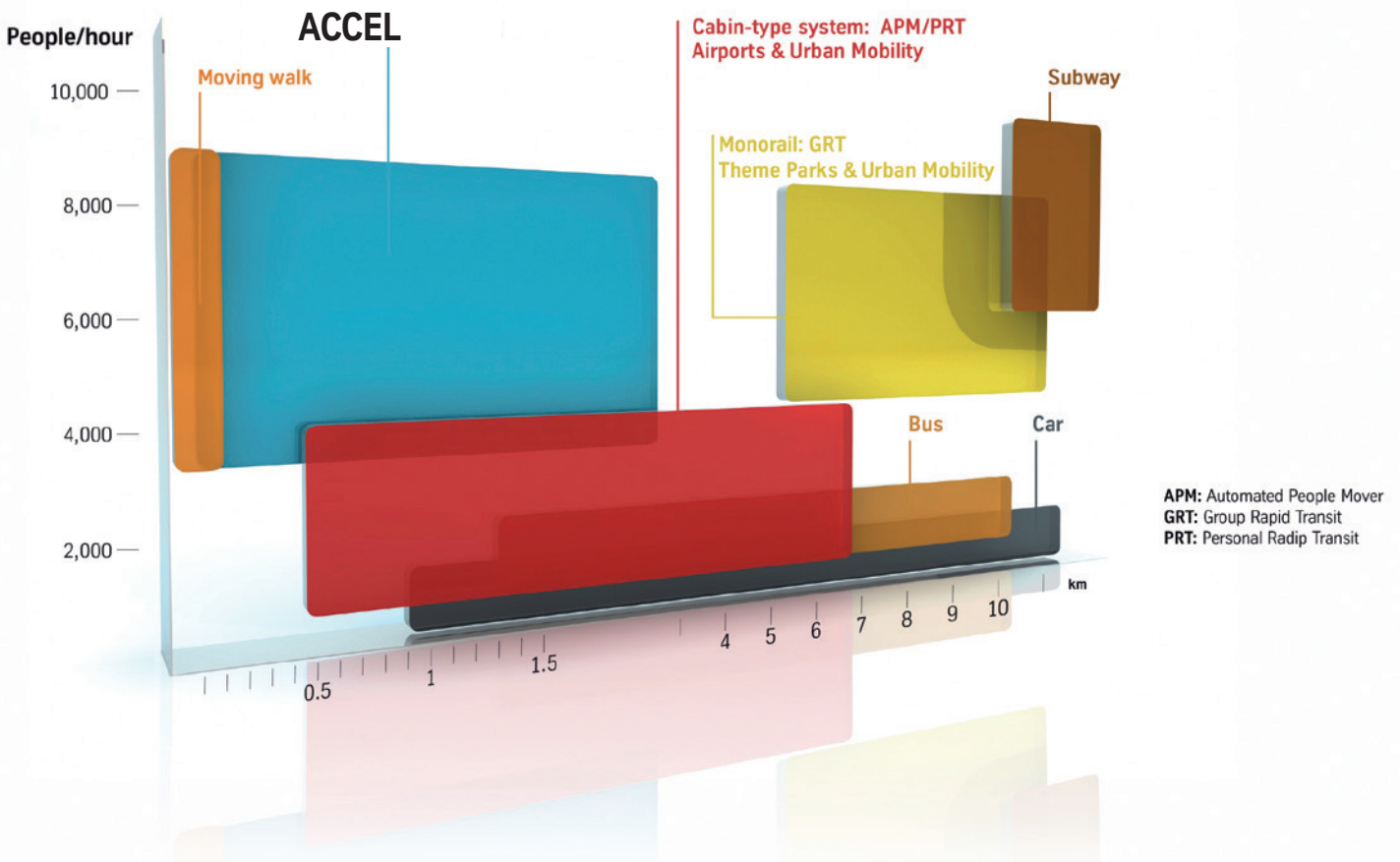
Metros

ThyssenKrupp analysis show that people at a distance of more than 500 metres from a metro station usually opt for other means of transport, despite the possibility of heavy traffic jams or significantly higher costs. Filling this gap in the transport landscape, ACCEL offers a cost effective solution to improve the reach of metro stations and increase network connectivity without the need for major infrastructural or civil works, in addition to attracting 30% additional passengers to a more environmentally friendly mode of transport.

Airports

In airports too, ACCEL is capable of significantly improving transport experiences. Some of the most recent expansions at large airport hubs have considerably increased the distances between gates. In a few cases, the distance is over 3 km, requiring innovative solutions to help travellers move between gates, especially the elderly and those travelling with children. For airliners too, getting passengers from one gate to the next as quickly as possible is a priority.

No high infrastructure investments and very low operational costs.



METRO AIRPORT PASSENGERS

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