



*Mobility of tomorrow*

*Max Bögl group*

# *Max Bögl – reliability, flexibility, innovation*



## *Company group Max Bögl*

- 90 years of successful company history
- 35 locations worldwide
- Over 6,500 highly qualified employees
- Annual turnover of € 1.7 billion
- Family-owned in the 3rd generation
- Serial manufacturing processes

## *Future oriented Product portfolio*

- Renewables
- Living
- Building Construction
- Infrastructure
- Mobility





*Moving megacities*

***TSB*** - *Transport System Bögl*



# TEB – Vehicle data



## *Efficient technology*

- Speed up to 150 km/h
- Acceleration 1.0 m/s<sup>2</sup>
- Curve radius up to 45 m
- Transverse inclination up to 8°
- Gradient up to 10%
- Electromagnetic levitation
- Short stator linear drive (passive track, drive in vehicle)
- Up to 127 people per section
- 2 to a maximum of 6 sections per vehicle





## *Production of standard segments*

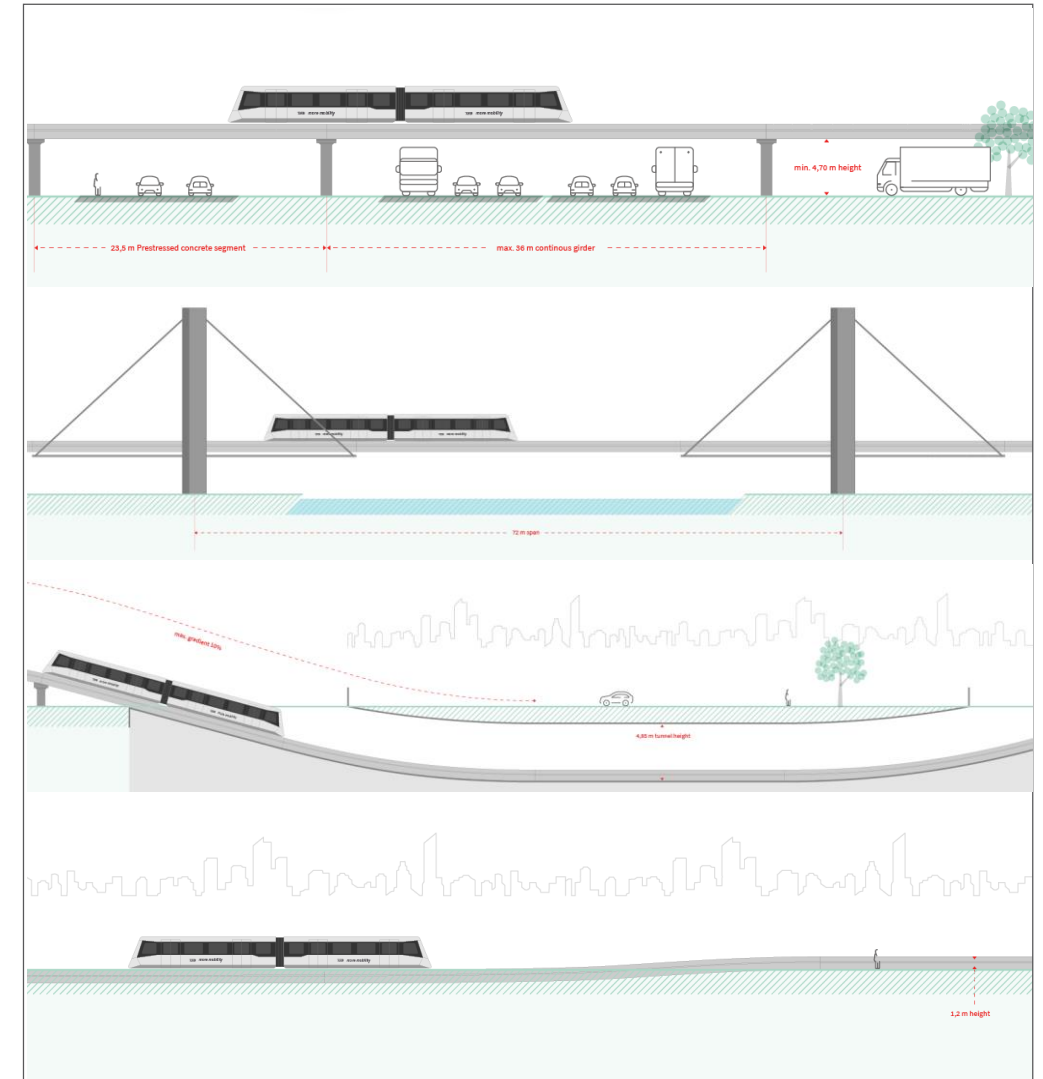
- Slim primary supporting structure (H 1.2 m / L 36 m)
- Fully equipped prefabricated elements
- Fast assembly of industrially manufactured guideways

## *Flexible integration in cities*

- Aesthetic route guidance for urban use
- No overhead line necessary
- Flexible use: elevated, at ground level or in tunnels
- Minimal nuisance to residents due to short construction times

## *Project size*

- Optimal solution from less than 3 to more than 50 kilometers



# TEB – Economic overall solution



## All from a single source

- Vehicle, track, operations control system as a turnkey service
- One partner from planning to execution and operation

## Industrial production

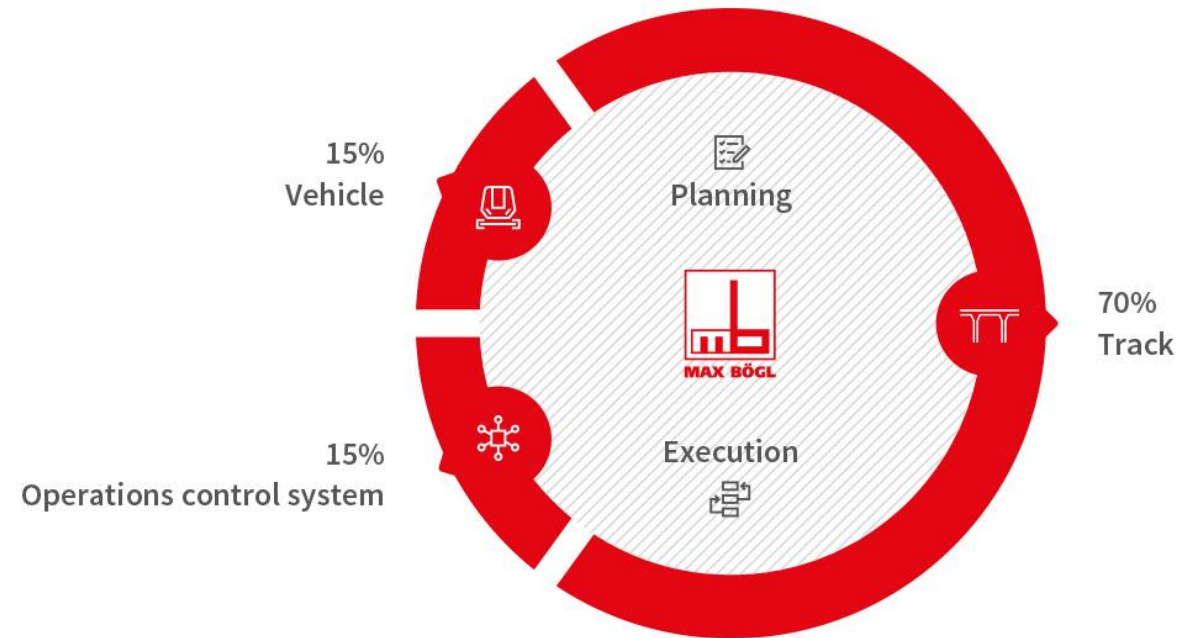
- Standardized and efficient production in the main plant
- Worldwide transportation with standard sea containers

## Low operating costs

- Optimization of personnel deployment thanks to autonomous driving operation
- No wear due to contactless floating

## Investment costs

- 30 – 50 Mio. EUR per double km (overall system)
- Depending on individual project parameters





## *Test track Max Bögl headquarters, Sengenthal*

- 850 m long test track
- Operation of new vehicle generation started in January 2020
- New maintenance center completed in December 2019

## *Demonstration track China*

- License agreement with partner Xinzhu Road & Bridge Machinery Co. Ltd. for use in the Chinese and Taiwanese market
- Construction of a 3.5 km demonstration track in Chengdu for customer acquisition and approval in China
- All components are delivered, including the first switch and serial vehicles





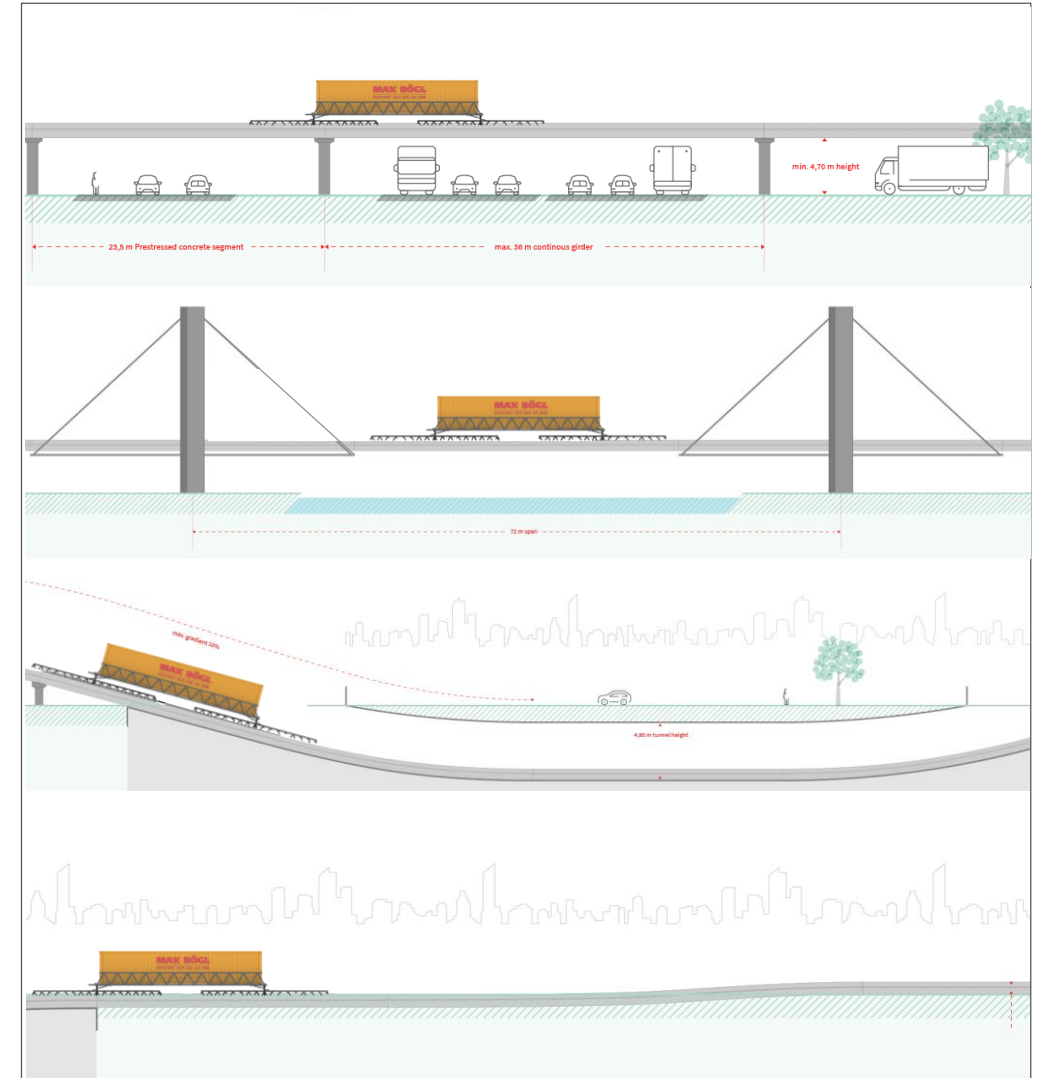


## Efficient technology

- Separate, noiseless and independent transport of standard ISO containers
- Headway 20s
- Maximum speed 150 km/h
- Identical infrastructure, running gear and operational control system compared to passenger transport system → Mixed traffic operation possible
- Loading and unloading of the vehicles with standard and existing crane infrastructure
- Energy-efficient overall system

## Investment costs

- 30 – 50 Mio. EUR per double km (overall system)
- Depending on individual project parameters





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