

STEERING TECHNOLOGY

FOR HIGH CAPACITY VEHICLE CONCEPTS



WE ARE READY TO MOVE
TRAMS ON THE ROAD.


HÜBNER

CURRENT TYPES OF BUSES REACH THEIR LIMITS

Public Transport is increasing worldwide because it is the backbone of growing cities and contributes to the prosperity of urban life. Particularly the use of buses is gaining in importance. Due to their advantages in terms of implementation and applicability, in many cities bus systems are being expanded. As the demand in Public Transport is constantly increasing, the current types of buses reach their limits. Even bi-articulated buses are not able to carry further passengers because of axle load limitations and/or existing road conditions.

High Capacity Buses with a comparable capability than tram cars that are adapted to local demands (e.g. transport capacity, slopes, turning radius), are a solution to solve this challenge. This requires a technical approach which takes into account these specific conditions during the vehicle design already.

High Capacity Buses have no mechanical track guidance. In order to ensure a safe operation in public traffic, such buses must have a high level of maneuverability and driving stability.

CONCEPTS | CONSULTATION | TECHNOLOGY

HÜBNER Consulting

- Vehicle Configuration
- Selection of axles
- Location of axles

Simulation

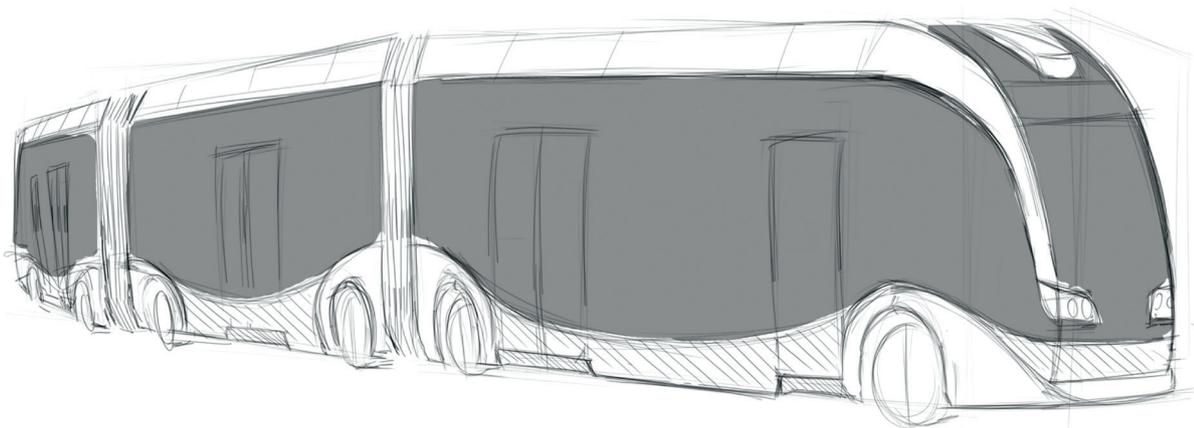
System components

HÜBNER Steering Systems

- Control units
- Steering Actuators
- Sensors
- Steering Algorithm

HÜBNER Gangway Systems

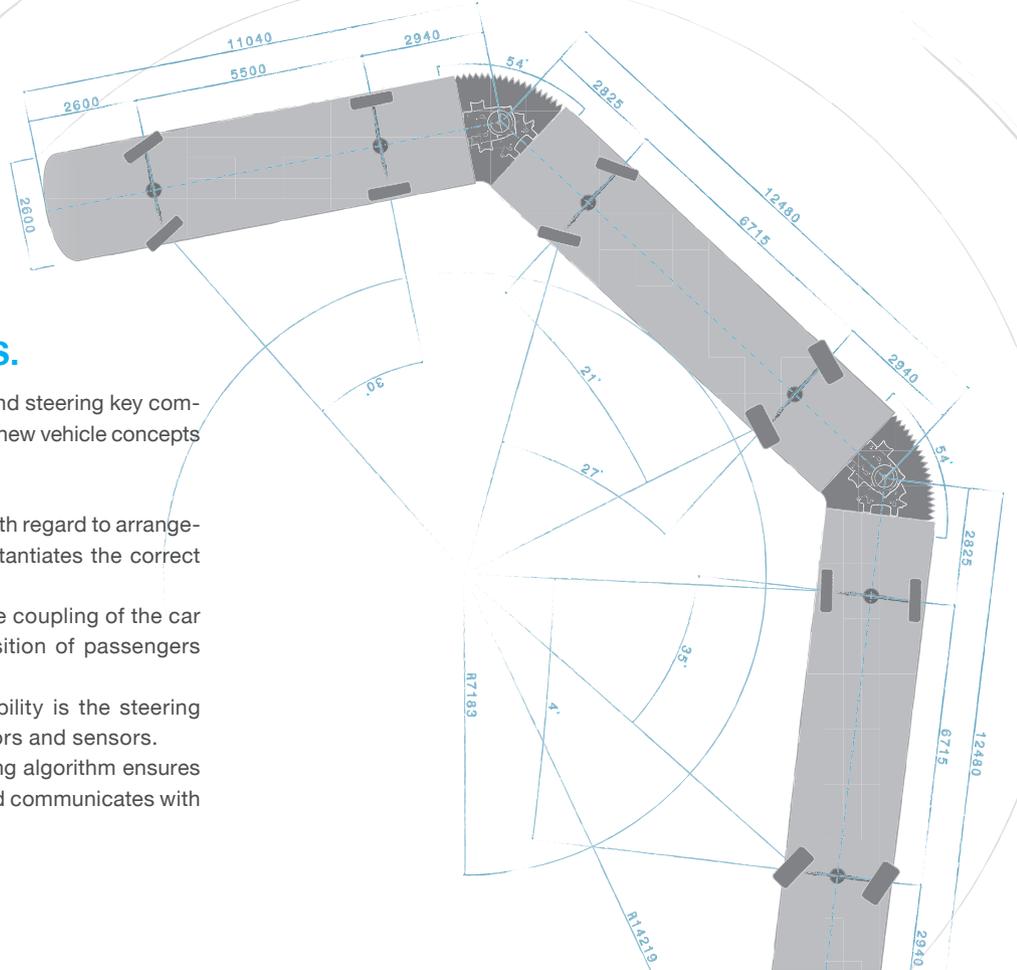
- Articulation Systems
- Folding Bellow
- Platform



HÜBNER PROVIDES SOLUTIONS.

In combination with special articulation systems and steering key components, bus manufacturers are now able to launch new vehicle concepts for High Capacity Buses, effectively.

- HÜBNER consults on the basic vehicle design with regard to arrangement and selection of axles. A simulation substantiates the correct technical design.
- Special articulation systems ensure a force-free coupling of the car bodies with each other and allow a safe transition of passengers between the car parts.
- The basis for maneuverability and driving stability is the steering system, which consists of control units, actuators and sensors.
- A central higher-level control unit with its steering algorithm ensures the coordination of the various steering axles and communicates with the main bus controller system.



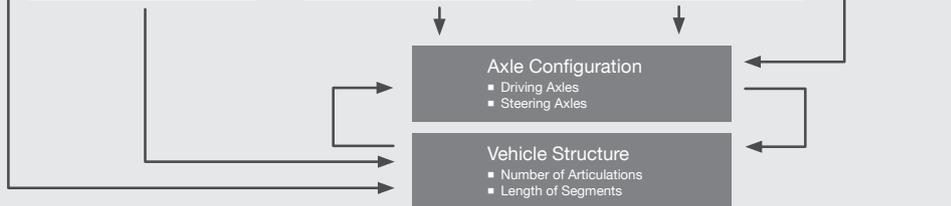
STAGE 1:
Operating Environment



STAGE 2:
Technical Environment



STAGE 3:
Development of variants



LEGAL FRAMEWORK