The Mireo – Intelligence on rails
The vehicles of the Desiro family have been systematically further developed

Desiro ML
- Mittelrheinbahn
- AM08 SNCB
- ÖBB cityjet
- Raaberbahn

Desiro City
- Thameslink
- South West Trains
- Moorgate

Desiro HC
- Rhein-Ruhr-Express

Varied capacities and lengths
Different entry heights
_inner ceiling concept
DC Link traction concept
Sibas PN vehicle control
Always Connected!
Trailing bogie with inside bearings
Weight-optimized car bodies
Proven expertise meets innovative solutions

Mireo

The new modular system for regional and suburban transportation: the customizable and economically attractive solution for comfortable, premium-class commuter transport.
The Mireo has to satisfy the most diverse demands

- High functionality
- Greatest benefit
The Mireo has to satisfy the most diverse demands

- Reduction of lifecycle costs
- Fast »time to market«
The Mireo has to satisfy the most diverse demands

Minimum internal variance

Maximum external variance
The Mireo concept is based on four components:

- Energy efficiency down the line
- Faster into service thanks to efficient modular system
- Uncompromising flexibility
- Reduction of lifecycle costs: Vehicles, service and financing from one hand
The philosophy of the modular system –
Standardization and multiple use of modules

Satisfy customer customization requirements:
Standardization of basic functions

Standard interfaces allow changes
without extensive construction adjustments

Standardization and
multiple use of modules in
various projects

Variants derived from
predefined solutions

Independent innovation cycles
for the different modules
The improved aerodynamics and higher energy efficiency of the components substantially reduce weight and energy consumption.

The high-efficiency transformer and optimal utilization of the ED brakes reduce traction energy consumption.
Energy efficiency down the line

The trailing bogies with inside bearings and the concept of the long articulated train make a major contribution to saving weight and thus energy.

The car body is a lightweight welded integral aluminum monocoque construction primarily using large extruded profiles.

All components are installed on the vehicle roof or beneath the floor.
Mireo – the environmentally friendly concept

**Noise**

With the help of the new aerodynamic design and the quiet bogie, noise is reduced to a level that meets all current standards.

**Recycling**

The use of specially selected materials guarantees a recycling quota of 95 percent.
Mireo – the environmentally friendly concept

Energy consumption

The lightweight construction, energy-efficient components and an intelligent board management system reduce energy consumption by 25 percent and the driver assistant system contributes a further 30 percent saving in energy.
Uncompromising flexibility
Uncompromising flexibility thanks to »empty bodies«

The interior belongs to the passengers!

- Maximum flexibility of interior design
- Simple covertability of interior space
- Optimally designed for cleaning
- Usable interior area is fully available for passengers
- Maximum capacity through more seats at same train length
Flexible operations through variable entry heights

760 mm
550 mm

960 mm
Flexible operations through variable traction concepts

- Flexible capacity adjustments through various car body lengths and train configurations
- 2- to 7-car trains (~ 50-140m) possible.
- Scalable traction concept with ECO, Midi and Speedy (maximum speed 140/160 km/h) options.
Bogies for Eco, Midi and Speedy

- **Eco**
  - Acceleration: 0.65 m/s²

- **Midi**
  - Acceleration: 1 m/s²

- **Speedy**
  - Acceleration: 1.2 m/s²
Service for seamless mobility – »Always connected«

- Driver assistance system
- CCTV | security monitoring
- Advertising
- Passenger Information System
- Internet on board
- Entertainment
- Passenger assistance
Overview of the Mireo features and benefits

Vehicle architecture
- Scalable articulated train
- Costs reduced with fewer bogies and car bodies
- Modular traction with innovative DC busbar
- Flexible platform performance with reduced one-time costs and delivery times

Running gear features
- Trailing bogies with inside bearings
- Less maintenance-intensive and lower energy consumption
- Modular architecture for car bodies and standard components
- Greater flexibility with vehicle lengths, capacities and interior furnishings

Traction system
- Modular traction with innovative DC busbar
- Greater flexibility with vehicle lengths, capacities and interior furnishings

Platform concept
- Modular traction with innovative DC busbar
- Greater flexibility with vehicle lengths, capacities and interior furnishings

Vehicle architecture benefits
- Costs reduced with fewer bogies and car bodies
- Less maintenance-intensive and lower energy consumption
- Greater flexibility with vehicle lengths, capacities and interior furnishings

Vehicles
- Modular traction with innovative DC busbar
- Greater flexibility with vehicle lengths, capacities and interior furnishings

Platform concept benefits
- Modular traction with innovative DC busbar
- Greater flexibility with vehicle lengths, capacities and interior furnishings

Thank you for your kind attention.