

Eurailspeed

Parallel Session E.1

Motoaki Terai

**Chief Engineer, Maglev System Development
Division, Central Japan Railway Company**



Under the
patronage of



Organisers



Partners



Media partner



Superconducting Maglev System - Innovative Transportation -



Motoaki Terai



November 11, 2005

CENTRAL JAPAN RAILWAY COMPANY

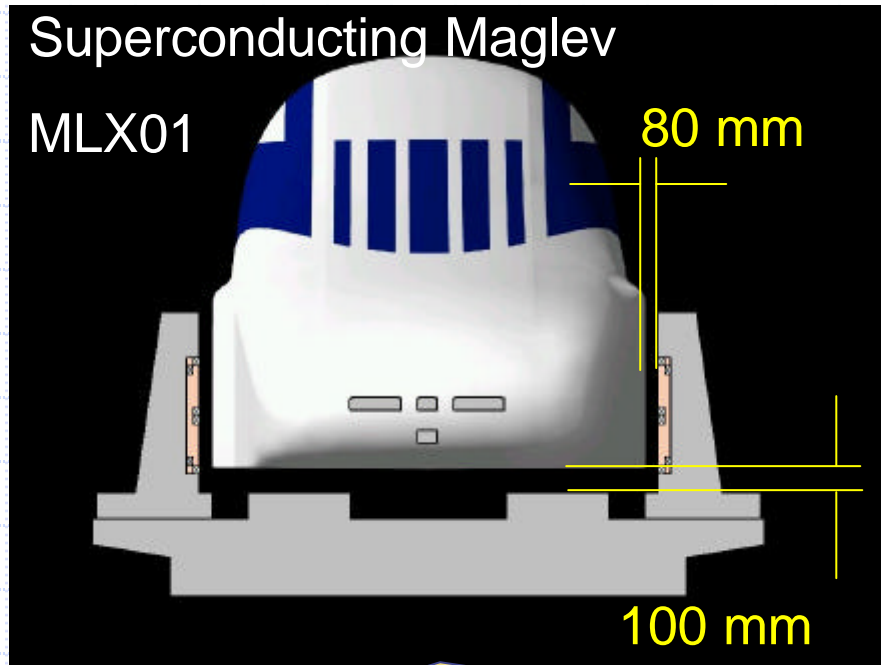
Features of Superconducting Maglev

- ◆ Larger Air Gap
- ◆ Ultra High-speed
- ◆ Less Energy Consumption and Less CO₂ Emission
- ◆ Lighter Vehicle Weight
- ◆ Higher Acceleration and Deceleration Performance
- ◆ Less Noise Emission
- ◆ Operator-developed System



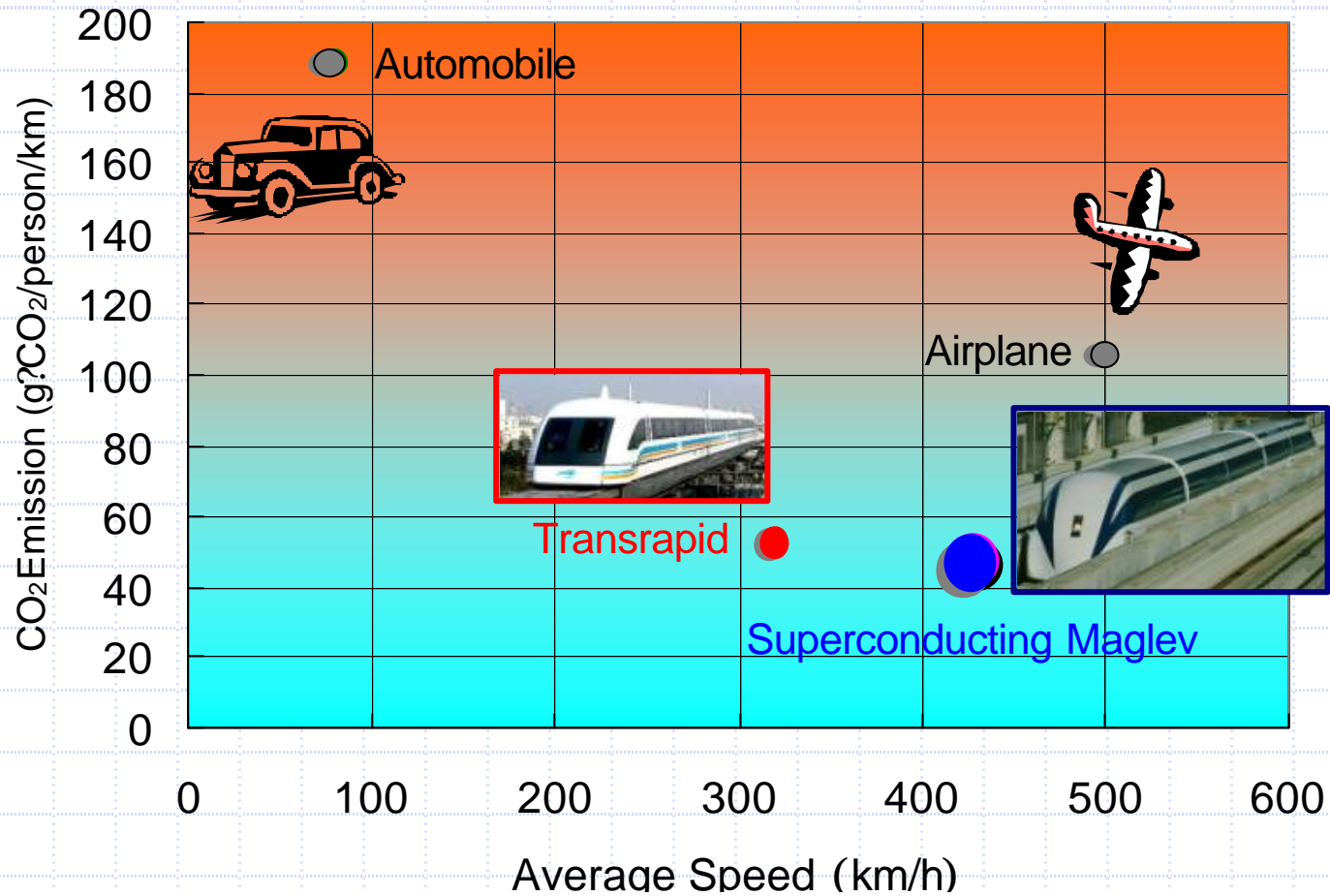
CENTRAL JAPAN RAILWAY COMPANY

Advantages of Larger Air Gap



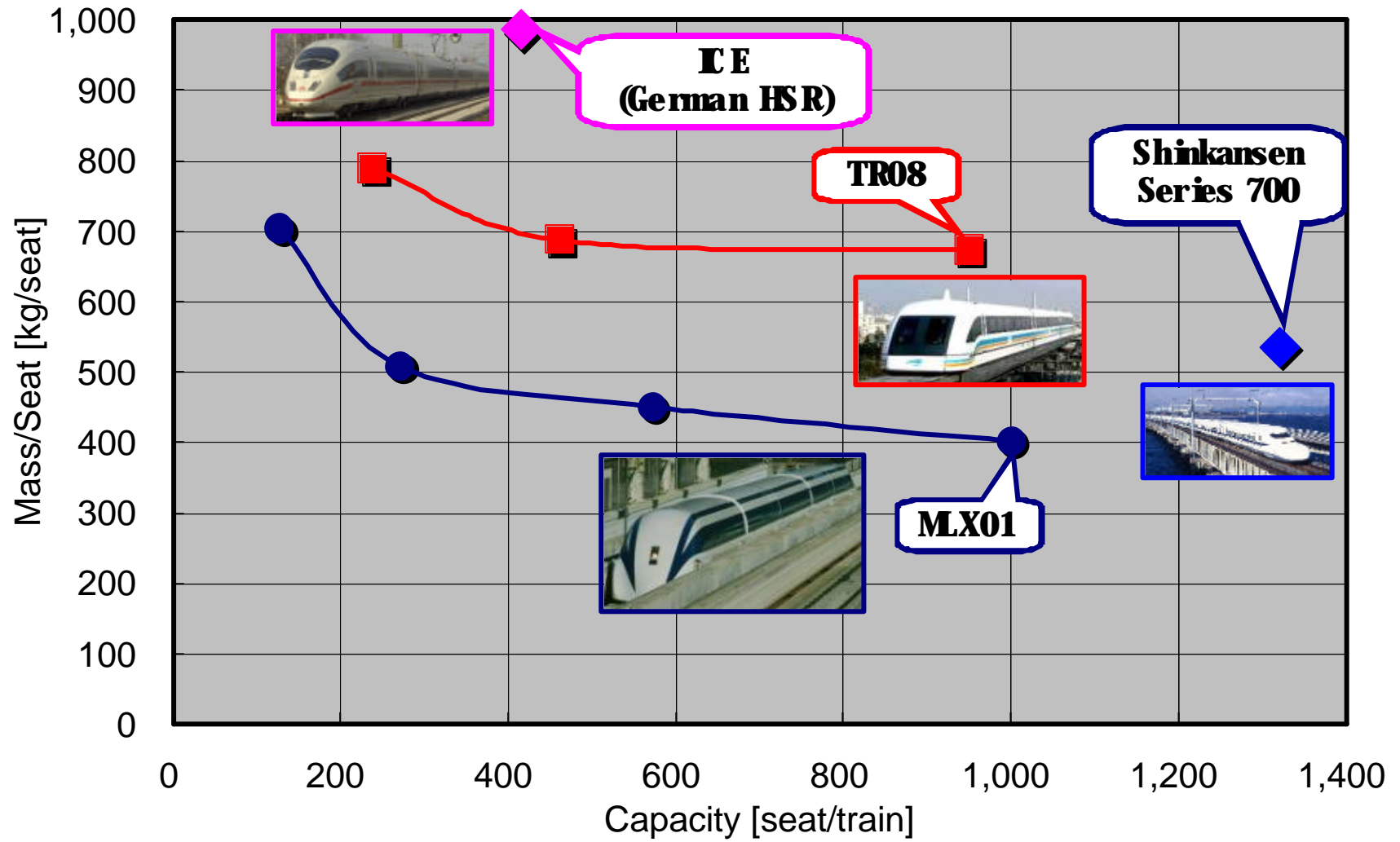
- ◆ No active air gap control for both levitation and guidance
- ◆ Safe and stable operation in various geographical conditions
- ◆ No chance of derailment even under earthquake shocks due to strong electromagnetic suspension

Less CO₂ Emission



Superconducting Maglev emits less CO₂ than above transportation modes, despite its high operational speed.

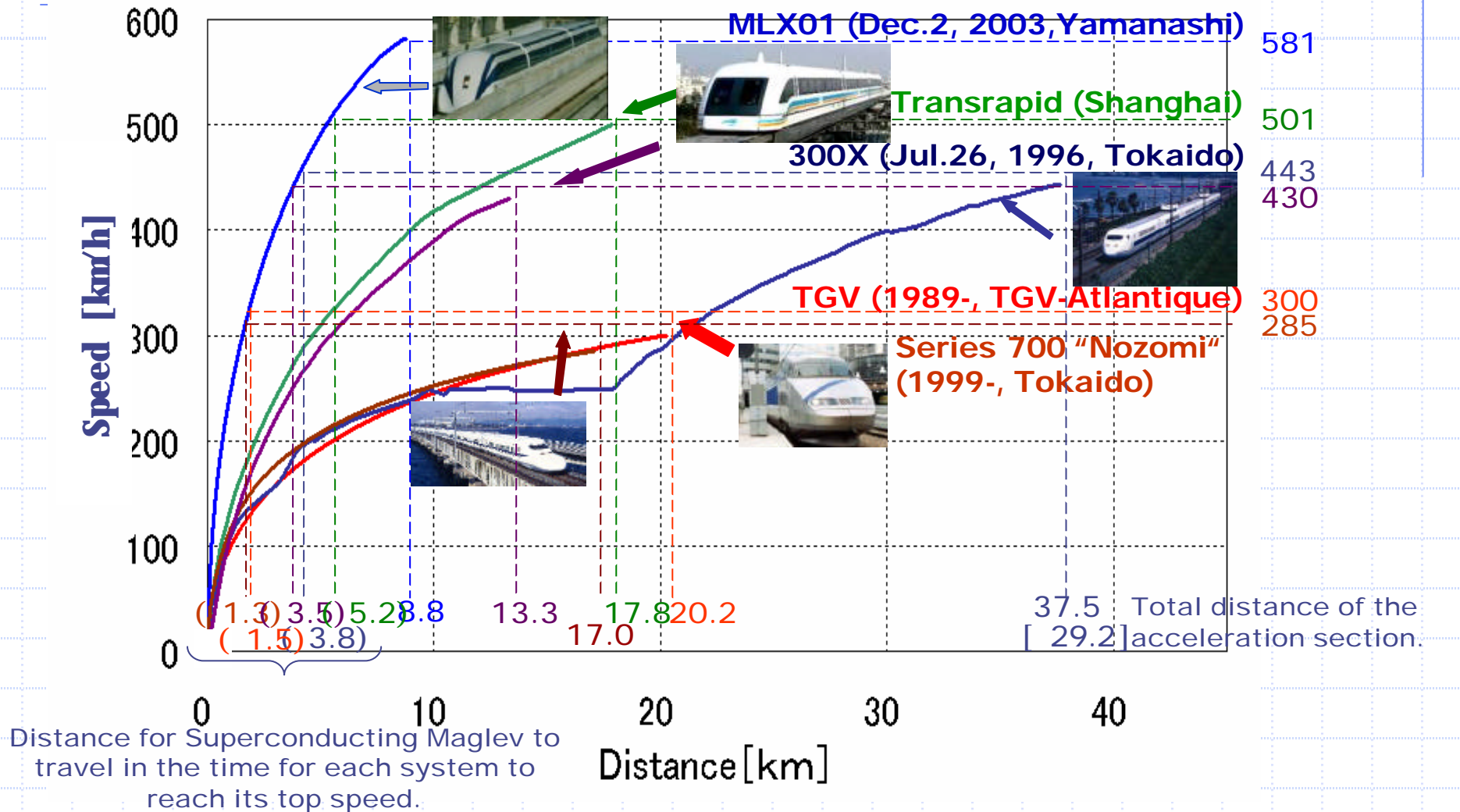
Lighter Vehicle Weight



Lighterweight Superconducting Maglev MLX01 vehicle for higher speed and less energy consumption.

Higher Acceleration Performance

- Higher Acceleration Performance with Lighter Vehicle



CENTRAL JAPAN RAILWAY COMPANY

Conclusion

- ◆ Superconducting Maglev technology is environmentally friendlier and has higher operational performance considering its high speed.
- ◆ JR-Central is technically ready for deploying the Superconducting Maglev System for the revenue service.

