ÖBB Personenverkehr

railjet

# Procurement & Operation Of *ÖBB railjet* Concerning Aspects Of Energy Efficiency



# The *railjet*-Concept

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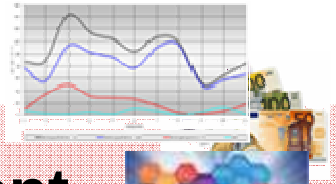
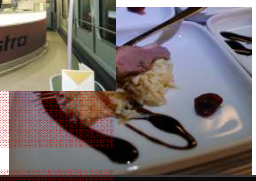
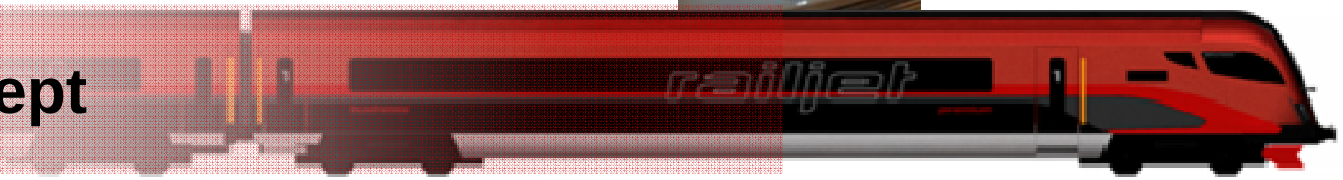


Market concept


Service concept






Fleet concept

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# The Fleet Concept

basics

- „Innovativ for customers benefit – but technically approved“
- Huge operating possibilities abroad
- High economic efficiency
- Tailor-made for austian market

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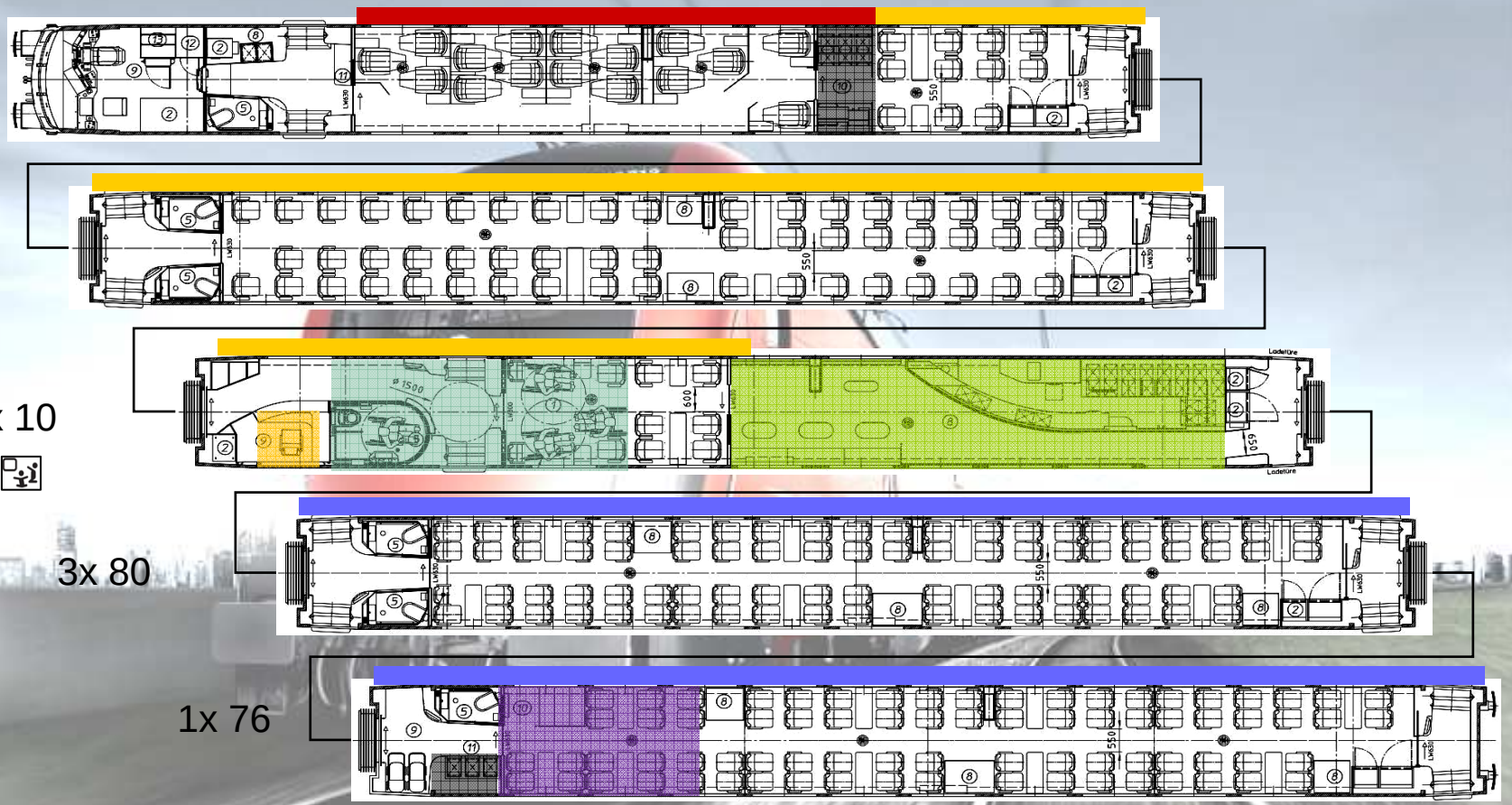
# The *railjet* Configuration

**408 seats - 16 Premium, 76 First, 316 Economy**



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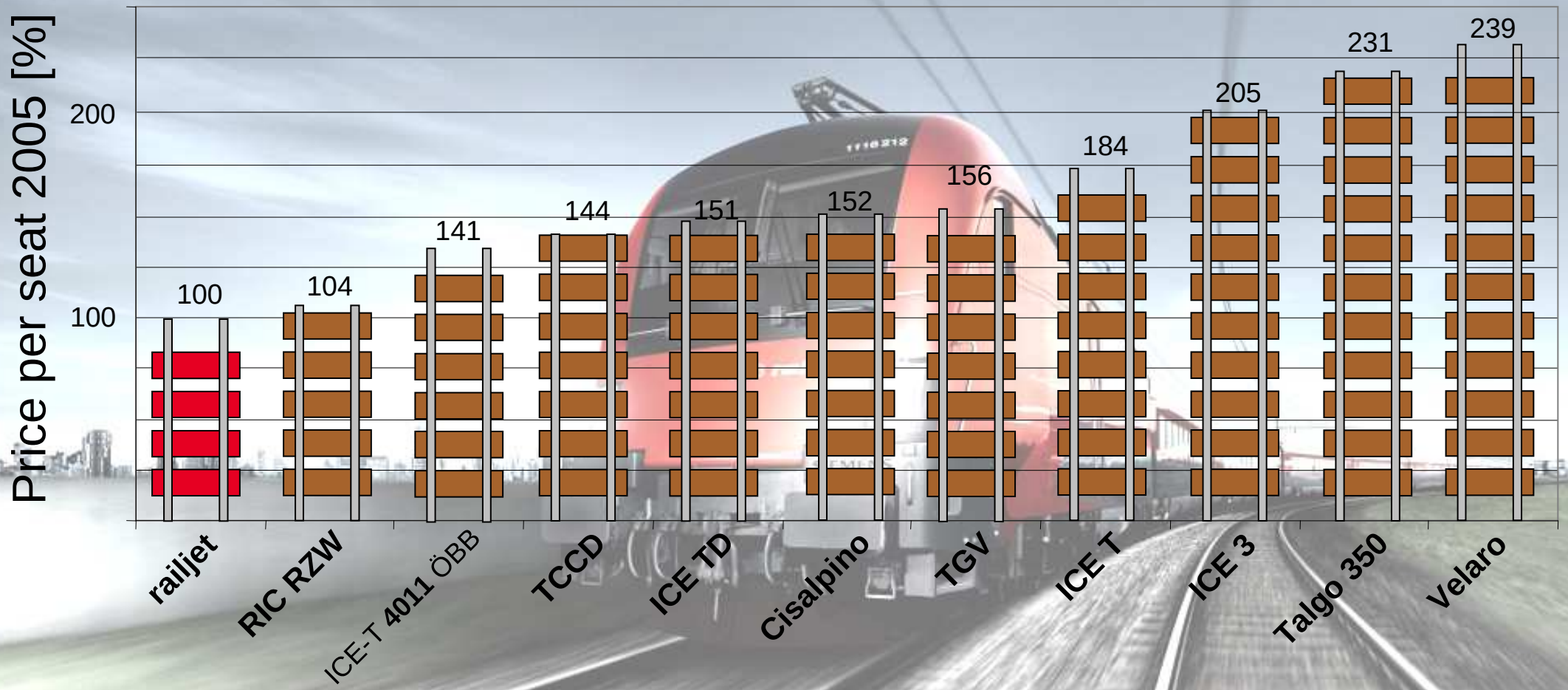
# The *railjet* Interieur

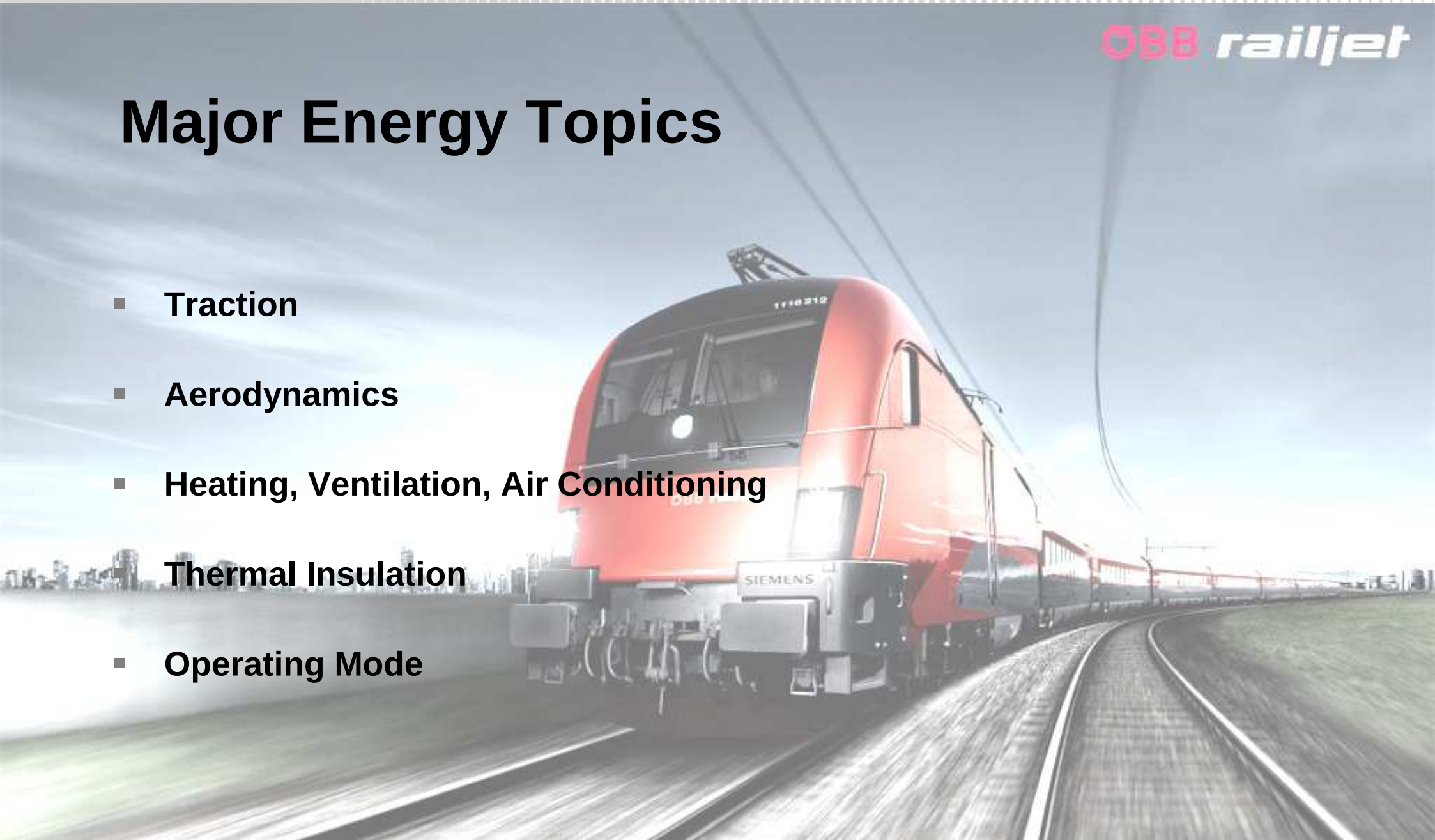
## Premium

## First

## Economy

# International Benchmark






# Major Energy Topics

- Traction
- Aerodynamics
- Heating, Ventilation, Air Conditioning
- Thermal Insulation
- Operating Mode

# Traction


**Standard loco ÖBB-„Taurus“**

- **Continuous rating 6400 kW**
- **Maximum speed 230 km/h**
- **Mass 86t**
- **Starting tractive effort 300 kN**

**For international traffic there is every other diesel- or elektric loco usable**

**Recovering brake energy as „State Of Technology“**

# Aerodynamics

- ÖBB „Taurus“ forces head form effectiveness
- Adequate for operational concept


# Heating, Ventilation, Air Conditioning

- Preheating concept considers Loco Software (no changes)
- „energy safing mode“:
  - Frost protection (UIC 553), min. +7℃ inside the compartments
  - ventilation starts above 30℃ inside the compartments
  - Changing to normal operation by cab activation or pre-programming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# Thermal Insulation

- Coefficient of heat transmission 1,3 W/m²K

# Operation Mode

- Manner of driving
- Tools accepted by staff

# Conclusion

- Safing Energy is not only a matter of technical possibilities
- In times of increasing cost pressure each energy safing concept has to be a well-balanced mixture of
  - Rateable savings capacity
  - Limited costs, but also
  - Feasible implementation and
  - Advantages for all involved

  fitting in the existing embedding system.

In that case we all will have sustainable success

**Thank You**