Welcome!
Workshop Energy Efficiency and CO₂

Overview

• Introduction – Henning Schwarz
• Energy and CO₂ performance of the rail sector and further reduction strategies – Raimondo Orsini
• The Railenergy Project – Mads Bergendorff
• Technical Recommendations – Enno Wiebe

憏 Spanish High Speed Trains: Energy Efficiency in operation - José Antonio Jimenez
Competitors Outlook 2030

Electric cars supplied by green energy could turn railways the bad guy ...

Source: Öko-Institut, DLR: Renewbility
Background - Political Priorities

• Commission President Barroso stated in September 2009 that lowering carbon emissions and tackling those from transport in particular as a key action for the new Commission

• The new Commissioner for Climate Action, Connie Hedegaard, made clear that a package on transport and climate change measures would be a priority for her

• The EU Environment Council in October 2009 agreed on the need to set a long-term target for emissions reduction at EU level, specifying a reduction target of 80-95% by 2050
Consequences

Need for

• a strong commitment of railways towards a sustainable leadership in the transport sector
• a long-term environment and sustainability strategy for after 2020
• efficient activity planning of the whole rail sector to keep our pole position and being the mode of choice also in 2050
• to start the innovation process today, due to the long life cycle of rail vehicles and assets
Discussed targets 2030 & vision 2050

Climate Protection

• **Target 2030**
  - Reduction of specific CO2 emissions from train operation by 50% compared to base year 1990; measured per passenger-km (passenger service) and gross tonne-km (freight service).
  - not exceeding total CO2 emission from train operation in absolute terms even with projected traffic growth compared to base year 1990.

• **Vision 2050**
  - European railways will strive towards **carbon-free** train operation by 2050
Discussed targets 2030 and vision 2050

Energy Efficiency

• **Target 2030**
  - Reduction of specific final energy consumption from train operation by 30% compared to the base year 1990

• **Vision 2050**
  - European railways will strive towards *halving* their specific final energy consumption from train operation by 2050 compared to the base year 1990; measured per passenger-km (passenger service) and gross tonne-km (freight service).
The key question for the workshop: How to achieve these targets?

Presentations

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