Promotion du Grand Axe Ferroviaire de marchandises Scandinavie-Rhin-Rhône-Méditerranée Occidentale A.S.B.L.

Consortium

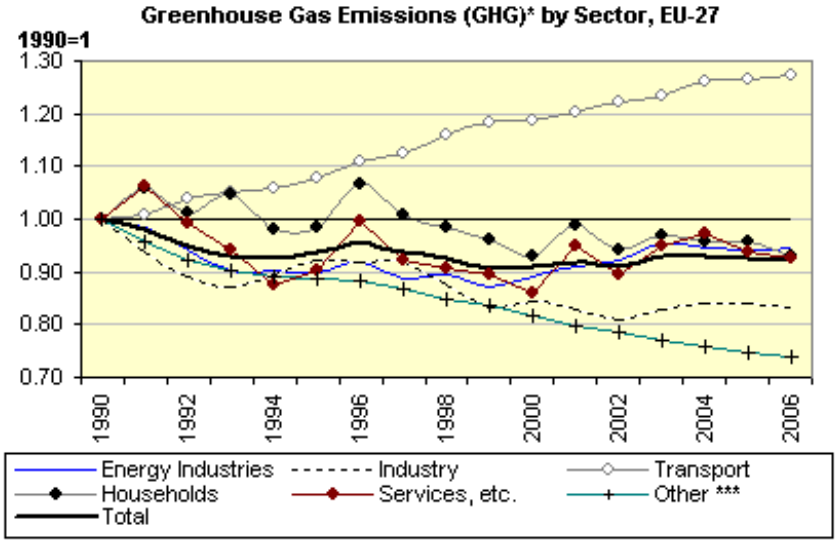
Technical, Socio-economic and Supply/Demand study regarding the transport of the FERRMED Great Rail Network (Scandinavia-Rhine-Rhône-Western Mediterranean)

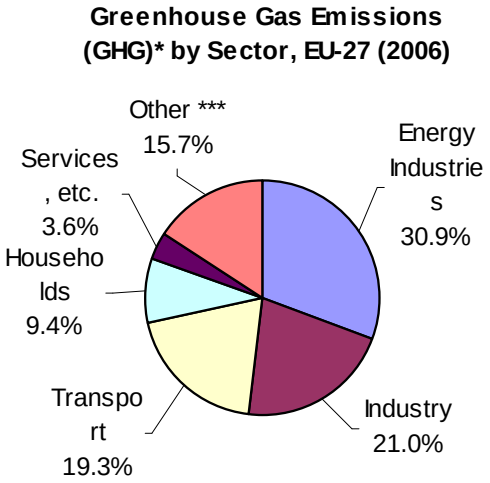
Environmental Considerations

Presented by David Kelly - WYG

Introduction

- Transport
  - critical to our economy but;
  - environmentally impacting





Source: DG TREN Pocketbook 2009

EU Policy

Consortium

- EU Transport Policy
  - White Paper 2001 – modal shift from road to rail
  - Mid Term Review – modal shift where appropriate eg long distance
  - FERRMED vision in line with EU policy

Global Study Environmental Considerations

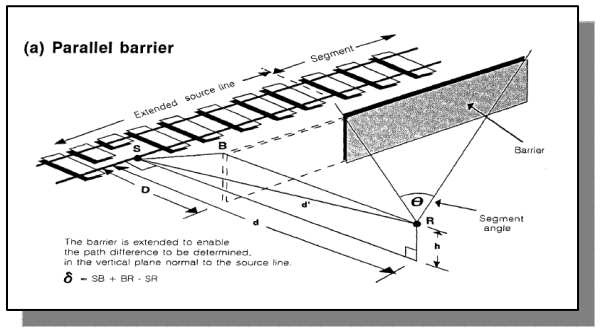
Consortium

- Strategic study
- No assessment of individual schemes
- 3 broad considerations
  1. Noise
  2. Emissions
  3. Potential Conflicts

Noise

Consortium

- Traffic noise affects millions throughout the EU
- Health effects; annoyance, disturbed sleep, disturbed cognitive function, cardiovascular disease, mental illness
- Road – highest emitter
  - Aircraft
    - Rail
- One of most significant environmental impacts of rail
- FERRMED Network largely on established routes
- Impacts to be assessed at scheme Feasibility Stage
- Impacts and costs included in study as Noise Barrier cost



Emissions

- High level impact on emission levels analysed within the CBA
- Emission factors derived from TREMOVE transport & emissions simulation model
- Reduction in pollutants and CO_2 assessed for Medium, Full / Full+

Reduction in Pollutant and Greenhouse Gas Emissions 2016 – 2045 (tonnes)

	FERRMED Medium Scenario	FERRMED Full Scenario	FERRMED Full+ Scenario
NoX	805,182	1,004,694	1,004,694
NMVOC	5,794	8,281	8,281
SO_2	199,841	242,682	242,682
PM	27,558	35,013	35,013
CO_2	128,099,118	145,410,934	145,410,934

Emission Reduction Benefits

Consortium

The Economic Benefits Arising from Emission Reduction as a Proportion of Total Benefit

	FERRMED Medium Scenario	FERRMED Full Scenario	FERRMED Full+ Scenario
Pollutants	**5.3%**	**2.7%**	**2.7%**
Greenhouse Gases	**1.3%**	**0.5%**	**0.5%**
Total	**6.8%**	**3.2%**	**3.2%**

CO_2 Savings

Consortium

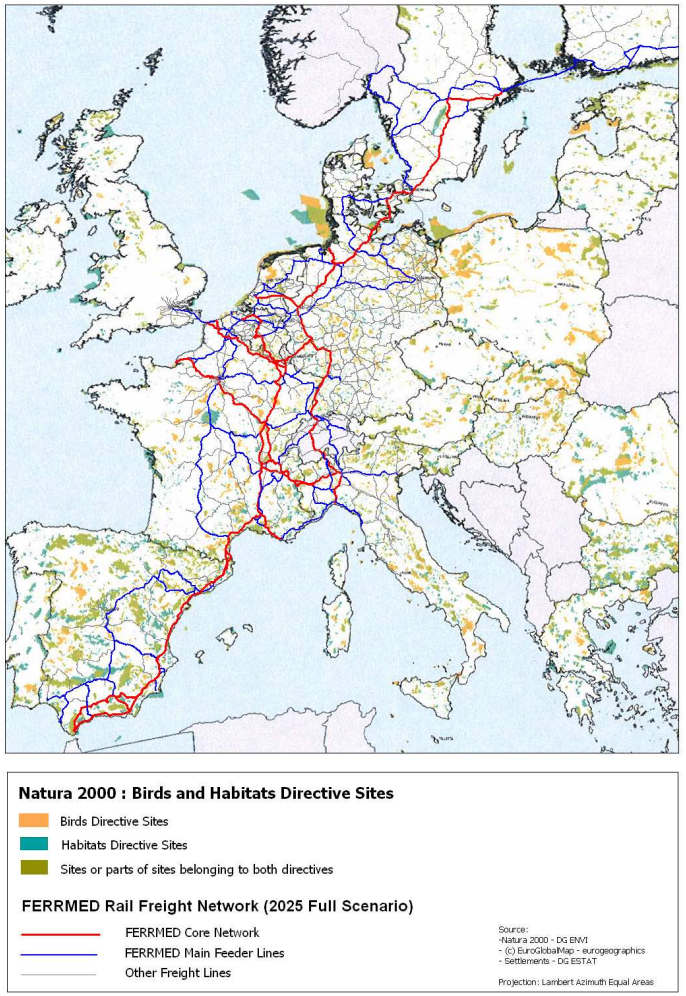
	2020	2025	2035	2045
Medium FERRMED Scenario. CO2 reduction (Mt/year)	**4.599**	**3.905**	**4.459**	**5.606**
as % of Reference Scenario CO2 emissions	**0.579%**	**0.473%**	**0.516%**	**0.621%**
Full / Full+ FERRMED Scenario. CO2 reduction (Mt/yr)	**3.173**	**4.857**	**5.361**	**6.678**
as % of Reference Scenario CO2 emissions	**0.408%**	**0.591%**	**0.623%**	**0.743%**

- Modest savings achieved in CO_2 against trend of rising transport demand
- Significant contribution towards Climate and Energy Package target (10% reduction)

Potential Conflicts

Consortium

- Established routes
- Many close to or through protected areas
- Many close to population centres
- Conflicts must be minimised and managed;
  - Rigorous impact assessments
  - Careful planning
  - Innovative design
  - Environmental management during construction



Thank You for your attention