

ENVIRONMENTAL POLICY RAIL TRANSPORT NL

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Environmental impacts from rail transport

- Climate change - direct / indirect
- Air Pollution (No_x , PM_{10}) - direct / indirect
- External safety - hazardous substances
- Noise

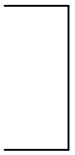
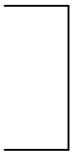


Railways and Noise in NL

- 3200 km
- > 1 million passengers / day
- 80.000 tons freight / day
- > 70 dB(A) dwellings : barriers € 500 mln
- Noise Innovation Programme Ministries Transport and Environment (2002 – 2007)
- € 110 mln (70 road, 40 rail)



Noise Innovation Programme - rail

- Focus on costefficiency, away from barriers
 - Grinding: - 2 dB
 - Rail dampers (development) - pilots: - 3 dB
 - Silent trains – braking systems existing fleet
- pilots K-blocks:  - 7-9 dB
- pilots LL-blocks: 



European context

- For new vehicles: emission limits TSI – Interoperability directive
- For existing fleet: several big study projects by UIC, EU CION, e.g. STAIRRS
- Outcome: tackle existing fleet / freight wagons
- Problem: Who pays? Still existing: see state of the art leaflet of CER and UIC, July 2006
- Directive 2001 / 14 (Management of rail infrastructure): provisions on access charges



Adapting braking systems (retrofit)

- By far most costefficient measure for society as a whole, factor 10 – 20 cf barriers
And: silent trains have effect everywhere
- Costs and benefits for different stakeholders
- How to make it happen
 - banning noisy trains (certain routes, evening / night)
 - financial incentives



Financial incentives

- Government Subsidies: EU state aid regime and discrimination problem

- Differentiated access charges: bonus / malus
 - Allowed bij article 7, sections 4 and 5, of Directive 2001 / 14
 - To be announced in annual Rail use agreement
 - Pre-announcement in NL in 2006



How big is the problem?

- In Europe 600.000 – 800.000 freight wagons?
- Really in use? And mileage / year ?
- NL study (Prorail): 20% wagons used in NL, 80% of kilometers
- Do not underestimate number of noisy passenger trains and kilometers!



Foreseen technology and costs

- K-blocks: € 4000 per wagon
- LL-blocks € 0 - < 1000 per wagon
- NL goes for LL-blocks
 - tests in NL (and Switzerland?)
 - admission by UIC in 2007
- Total investment cost for Dutch fleet: max € 30 mln
- Cf costs of barriers: € 500 mln



Levels of bonus / malus

Present thoughts NL:

- bonus per wagon kilometer (from 01-01-2008?)
 - 2 – 5 ct passenger coach
 - 1 – 2 ct freight wagon
 - expected return on investment: 1 – 3 years

- malus from (01-01-2011?)
 - (pre-) financed by Transport Ministry through Prorail



Parties involved in implementation

- Inframanager (Prorail) – receives access charge
- Operators – pay access charge
- Other parties, e.g. lease companies, involved through market

