Parallel Workshop 3 - Propulsion-related measures to reduce the CO₂ emissions from inland navigation

Henk Croo
Commissioner of Belgium to the CCNR

Strasbourg, April 12th, 2011
Options for the minimizing CO₂ emissions from inland navigation engines by reducing fuel consumption and using alternative fuels

Peter Scherm, EUROMOT

Main messages of presentation

- Reduction potential limited
- Alternative fuels limited / incompatibility concerns
- Balance between fuel efficiency and air pollution reduction
LNG as a fuel for inland navigation – challenges and solutions

Bert de Vries, Holland Shipbuilding Association

Main messages of presentation
- CO₂ reduction 15% → 25%
- Supply chain to be established
- Safety issue
- Training and education issue
Reduction of CO₂ emissions by diesel-electric propulsion system for an existing cargo vessel

*Claus-D. Christophel, Torque Marine IPS*

**Main messages of presentation**

- CO₂ / fuel reduction: 26%
- Power reserve for conventional propulsion
- A modular diesel-electric propulsion system offers a better power balance
- Safety issue
Reduction of CO₂ emissions by diesel-electric propulsion system for a new built cabin vessel

*Peter Andersen, e-powered marine solutions*

**Main messages of presentation**
- Fuel consumption diesel power is 20% less
- Integrated diesel electric system
- Safety issue
- Shore connection
- Hybrid concept
Reduction of CO$_2$ emissions by heat recovery from inland navigation engines

*Marcel Flipse, Voith Turbo*

**Main messages of presentation**
- Up to 12% fuel reduction
- Exhaust energy is fed to a steam engine
- Emission reduction
Reduction potential of engines very limited
LNG offers CO₂ reduction possibilities
Diesel-electric propulsion offers CO₂ reduction possibilities
Combination of different measures
EU reduction targets cannot be reached with propulsion related measures alone
Safety issue – technical requirements to be modernized