



Four initiatives for PIARC to meet freight needs and community expectations in road transport

Anders Lundström

- President of the International Forum for Road Transport Technology, IFRTT
- www.road-transport-technology.org
- Head of Feasibility Studies, Scania, Sweden
- anders_a.lundstrom@scania.com

The productivity increase





Malmö - Stockholm in 1909

Average speed 20 km/h = 3 days!

Payload less than 2 tonnes

Dirt road 700 km

More than 400 litres of fuel

Total of 2 axles

The European work-horse





Malmö - Stockholm in 1990

Average speed 80 km/h = 1 day

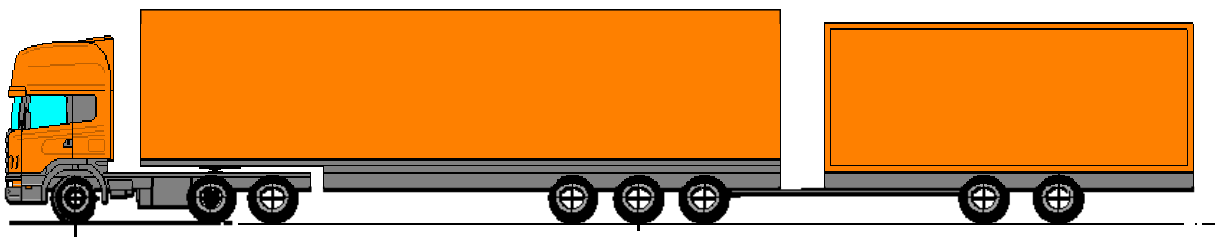
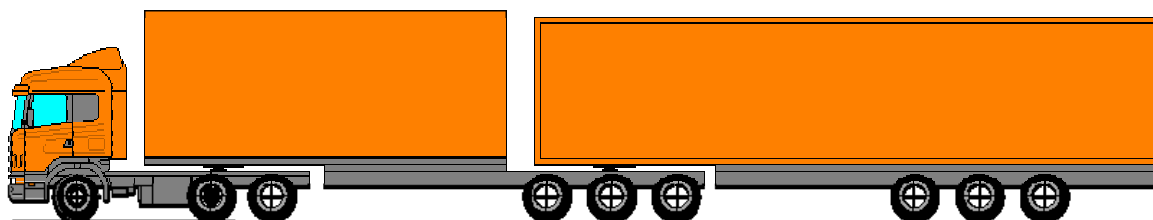
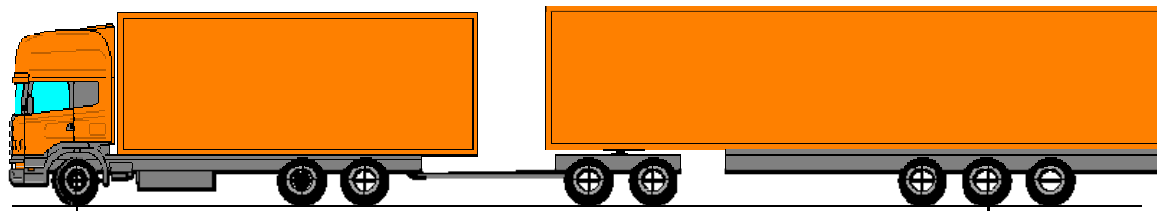
Payload 25 tonnes

600 km mostly four-lane road

200 litres of fuel

Total of 5 axles

Future European work-horses





Malmö - Stockholm in 2010

Average speed 80 km/h = 1 day

Payload more than 40 tonnes

600 km four-lane road

160 litres of fuel

Total of 7 or 8 axles

A key performance indicator

	1909	1990	2010	
A speed	20	80	80	(km/h)
B payload	2	25	40	(tonnes)
C fuel	400	200	160	(litres)
AxB/C	0.1	10	20	

A doubling of the road freight efficiency is technically feasible



Less fuel, less carbon dioxide

1 kg of fuel = 3 kg of CO₂



First initiative: harmonised road classes

Freight is global, c.f. ISO maritime containers

Vehicle manufacture is global, c.f. emission regulations

Infrastructure load carrying capacity, i.e. road strength, is not harmonised

Harmonise road class definitions and “bridge formulae”



Second initiative: harmonised road design

The European weights and dimensions directive 96/53/EC has been a success, now 27 countries and 500 million people

But the old German turning radius requirement of the directive needs to be replaced for modern combinations

A new approach to manoeuvrability is needed not to hamper development



Third initiative: improved freight statistics

All statistics are in tonnes lifted or tonne-kilometres

This does not reflect the relative growth of high value, low density goods in road freight

Different methods in different countries

A new harmonised approach to freight statistics is needed



Fourth initiative: harmonise vehicle – road communications

Road transport is a distributed system with autonomous units

Internet has become mobile

Very high potential for transport efficiency as well as for road safety and security

Harmonise standards for vehicle – road communications



Summary

Road freight grows as the economy grows.

Higher productivity, less environmental impact and increased safety and security can and will be developed hand in hand.

Infrastructure owners, legislators, vehicle manufacturers and operators must interact.

**Welcome to the Heavy Vehicle conference,
Paris May 19 – 22 2008!**