The ITF vision of the “Truck of the Future”

José Viegas
Secretary General

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► An inter-governmental organisation with 54 member countries, focusing on transport policy

► A think tank for global transport policy issues

► An annual summit of Ministers
Recent evolution of freight transport by land

- Freight transport flows suffered big reduction with the 2008 crisis, but started growing again, albeit with some volatility
  - In US and Russia transport volumes on road and on rail already above pre-crisis levels

- Market share of road transport holding steady or even slightly improving across the EU

Source: ITF Statistics Brief, October 2012
Trucks with evolution on multiple fronts

• Trucks have been undergoing steady evolution in the last decades

  – Much lower consumption and emissions (at least 30% between 1980 and 2005, an additional 30% to 50% possible with currently available technologies)

  – Strong incorporation of ICT based systems for production control (driver assistance and monitoring of vehicle organs and systems) as well as for commercial management (dynamic order processing)

  – Introduction of higher capacity vehicles (modular systems)
Market and regulatory requirements

- Economic and environmental efficiency gaining importance as purchasing criteria
  - With globalisation, pressure for increasing regulatory harmonisation across continental markets, lowering development costs

- OEMs from emerging countries are developing their own capacity, often through joint ventures with leading OEMs, and growing rapidly
  - Some entry at the less sophisticated segments of markets in developed countries must be expected
The ITF report “Moving Freight with Better Trucks” (1)

• Performance based (not technical) standards, defining targets rather than solutions, represent good path for promoting innovation while respecting public interest objectives

• European modular system trucks and high capacity vehicles in general can make a contribution to reducing emissions and congestion (on port access roads and other freight bottlenecks on the network).
  – There will be a rebound effect but this will not erode all the benefits (perhaps 10%-20%)

Higher productivity

• European truck – trailer, max 18.75 m 40 t

• EMS, max 25.25 m 60 t
  – Sweden, Finland
  – Netherlands, Denmark trials
The ITF report “Moving Freight with Better Trucks” (2)

- EMS trucks expected to be used mainly on trunk haul routes not so much on peripheral network.
  - Key issue is restricting access to roads with suitable geometry rather than CO2 or safety (braking performance equivalent, lane departure warning systems can be obligatory etc.)

- Competition with rail will vary markedly between markets. On mainland Europe relatively small impact expected.
  - In UK short distances mean deep sea rail container market could be eliminated.
  - In Sweden rail timber haulage increased as EMS truck boosted productivity of feeder transport.

Conflicting views on higher productivity HGVs

Good or bad for social economy?

Two LHVs can replace three conventional HGVs
Other evolutions expected in short-mid term

• Leading OEMs working hard on innovative concepts in all fronts of vehicle design

• On emissions and on safety
  – Continuing evolution of emission standards in developed markets
  – Aerodynamics and in-vehicle safety equipment
  – Full electric and hybrid traction in urban distribution vehicles
  – Semi-automatic driving (platoons in motorways)

• Productivity gains by reduction of “down” times
  – Greater automation in load/unload operations in the context of “internet of things”

• Some innovations are expensive and of different importance according to market segment
  → differentiated introduction moments by segment, (slow) movement towards modular vehicle design (“plug-and-play”)

Conclusions

• Large range of models of road goods vehicles, adapted to load, distance and working environment

• Modular vehicles of higher capacity, able to provide efficiency gains and quick and easy transformation into units of a more traditional size
  – “Same components “morph” into different vehicle configurations according to operating environment

• Additional technology innovations already (or soon) available, with gains in consumption, emissions, safety, and loading productivity
  – Date of market penetration variable with segment (capacity to amortize investment)
Thank you

José Viegas
T +33 (0)1 45 24 97 10
jose.viegas@oecd.org

Postal address
2 rue Andre Pascal
75775 Paris Cedex 16