UIRR
INTERNATIONAL UNION FOR ROAD-RAIL COMBINED TRANSPORT

IRU Workshop: The role of Road in Intermodal Transport]

# Measures for Road should be compatible with Combined Transport

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# Combined Transport Road - Rail

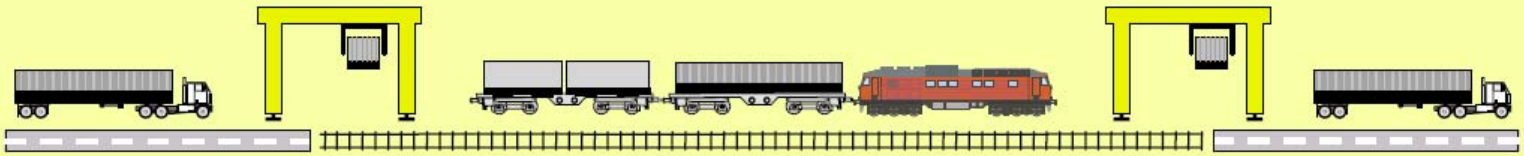
Market leader road transport

CT must be cometitive in price and performance

- Time and costs of two transhipments must be compensated by savings through bundled transports in trains over long distances

Important parameters

- Good rail infrastructure, competition on rail
- Good capacity use, high number of loading units per train
- Cost savings through standardisation



Unaccompanied CT

# Combined Transport road-rail versus pure road



*What can Road-Rail Combined Transport offer for European long-distance transport chains …*

| | Combined Transport | HGVs with aerodynamic elements |
|---|---|---|
| Energy efficiency | **35%** less per tkm | **1-3%** less per tkm** |
| GHG/$CO_2$ emissions | **75%** less per tkm* | **1-3%** less per tkm** |
| Number of accidents | **1 : 40** per tkm*** | |

* *The potential upside nears 100%; this value in Austria – already today – stands at over 90% thanks to the high ratio of renewable energy sources*

** *The values of current studies on aerodynamic devices were established in tests conducted at high speeds (90km/h – only allowed in some Member States), and the comparison vehicle was not equipped with every aerodynamic device possible within the presently permitted dimensions*

*** *The safety of operating road vehicles equipped with aerodynamic elements is yet to be independently confirmed*

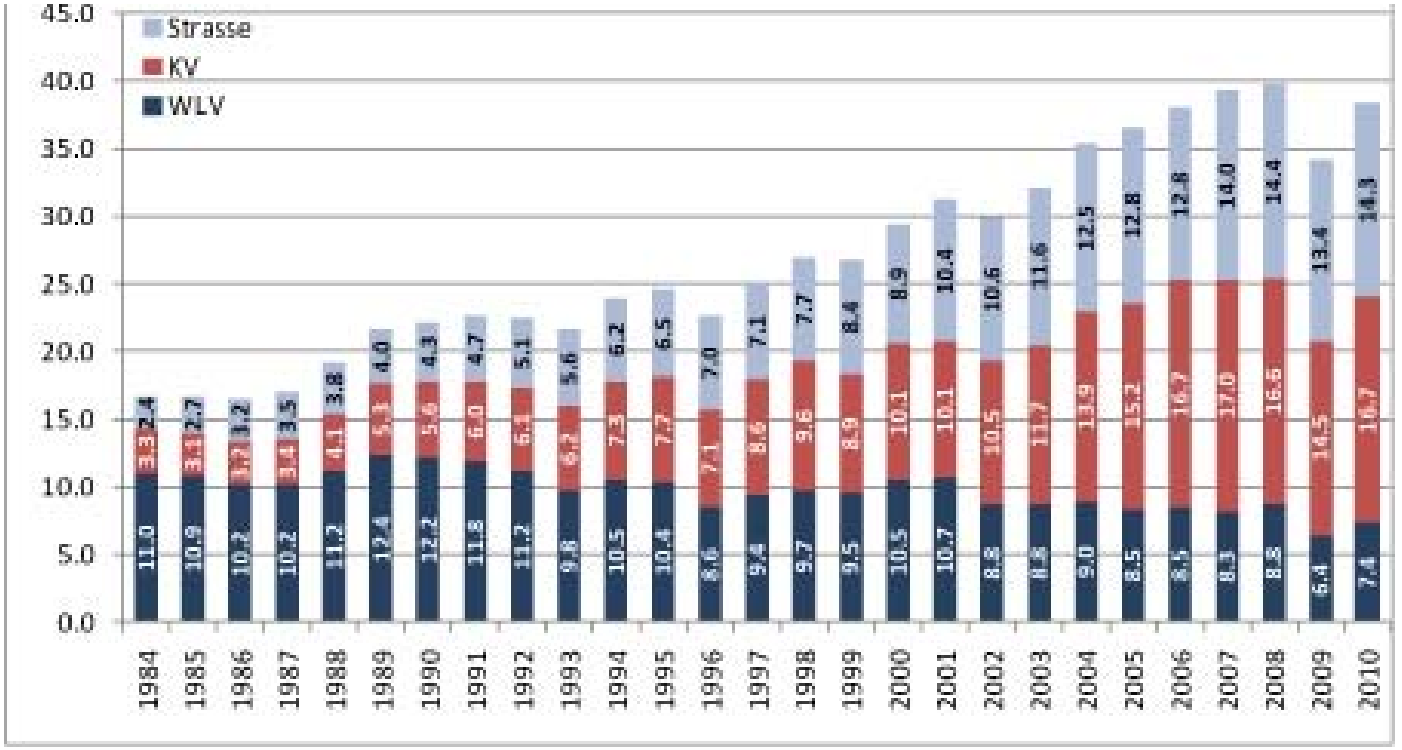
- ✓ **Road-rail Combined Transport is the most efficient way to achieve significant improvements in the environmental and safety performance of long-distance transport chains in Europe.**
- ✓ **Aerodynamic devices should be compatible with Combined Transport**

# Combined Transport can do the job…



…if and where the framework conditions are favourable

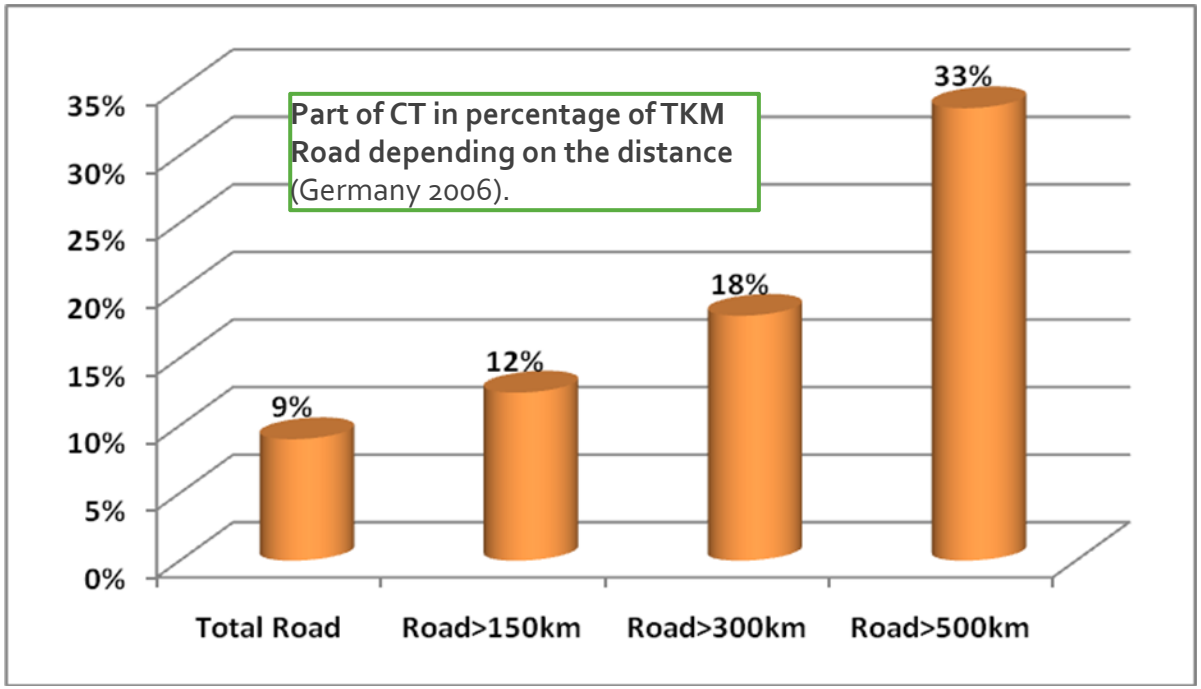
Transalpine traffic through Switzerland 1984 – 2010




**The 2011 Transport White Paper aim of shifting 50% of long(er) distance road tonne-kilometres is realistic, as the market share of rail freight through Switzerland already today exceeds 60%**

# Combined Transport is important on long distances





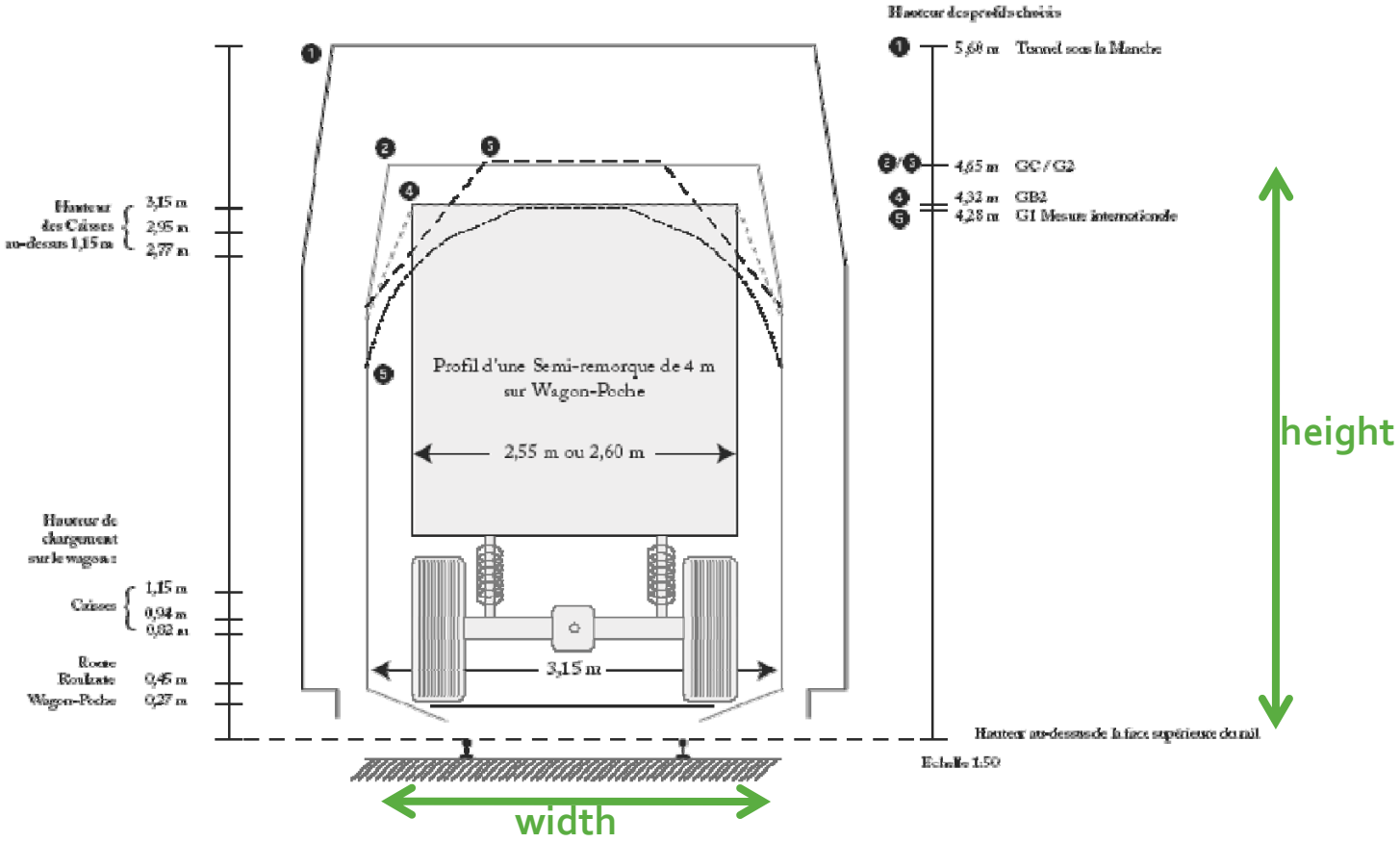

**This illustrates the major importance of CT for long distance freight transport and its high competitiveness on this segment.**

**Average distance of all UIRR traffic on rail: 800 km!**

# Dimensions are important



*Combined Transport already requires a larger than 'average' rail loading gauge*




**It is costly to enlarge infrastructure (tunnels) or to operate low platform wagons; and wagon construction nearly reached its limits.**

# Width and height are both critical




Semi-trailer loaded into a pocket wagon to minimise overall height


Minimal tolerance is left in width

# Dimensions are important on Rolling Motorways

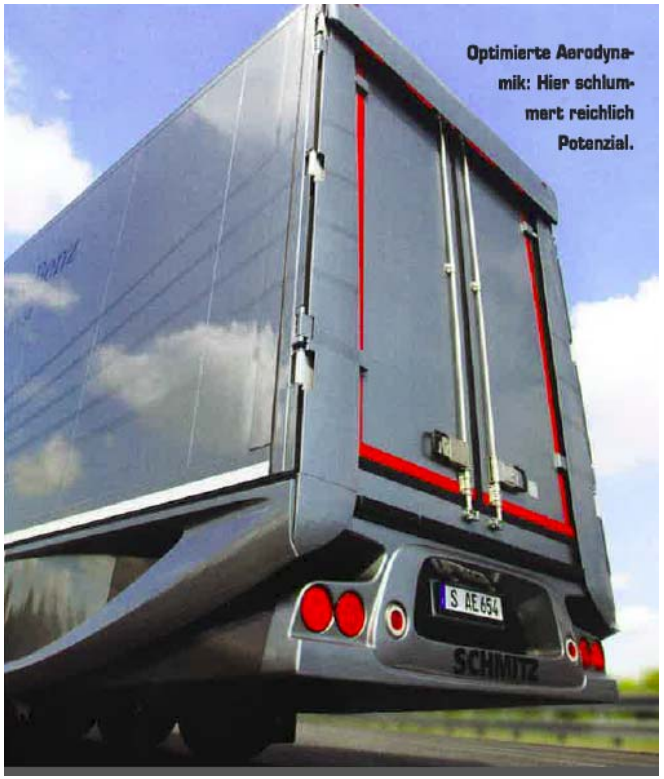




Boarding a RoMo wagon is a precision job:
**every centimetre counts**

# Energy and $CO_2$ saving with aerodynamic trucks




**Aerodynamic elements important for higher speeds and on long distances only. In this segment the savings in CT are much higher. Allow only moderate length extensions that enable compatibility.**

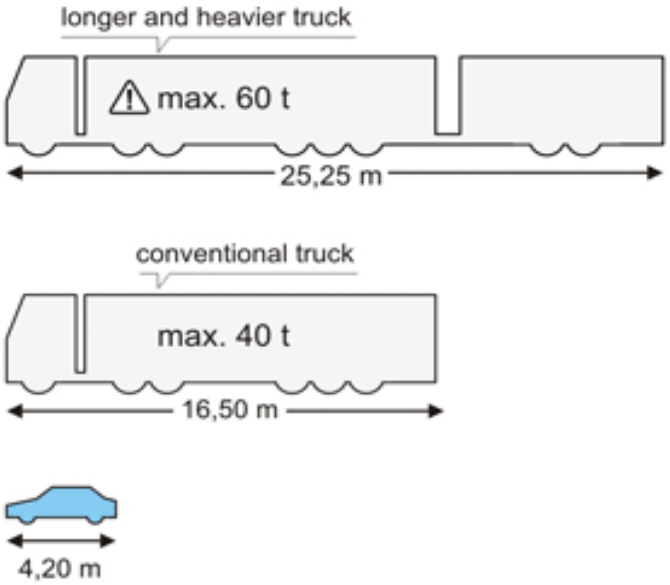
# Conclusions for aerodynamic devices



- ✓ Aerodynamic devices are a measure with restricted effects: $CO_2$ savings mainly **achievable at higher speeds** – hence relevant only in long(er) distance transport (on motorways).
- ✓ **Combined Transport can deliver much more** in emissions, as well as in energy efficiency and safety terms over the same long(er) distance relations: **25 trucks would need to be equipped with aerodynamic devices to match the effect of 1 truck shifted to rail**!
- ✓ A lot can already be done within the current dimensions.
- ✓ Moderate extensions that ensure compatibility may deliver a bit more.
- ✓ The benefit of additional lengths is marginal.

# Megatrucks (EMS): Safety problem and back-shift







**Studies have shown that the beneficial effects in energy and $CO_2$ savings will be counter-balanced by backshift from rail to road.**

**Rail is between 25 and 40 times safer than road. And on road: longer and/or heavier trucks will have a negative impact on safety.**

**UIRR Members even do not want Megatrucks if only allowed for Combined Transport: terminal infrastructure is not adapted and some fear it would be a first step to their general introduction.**

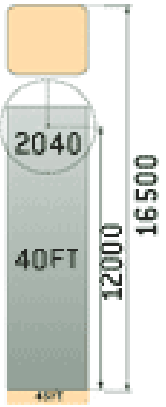
# The 44 t exemption is important for CT



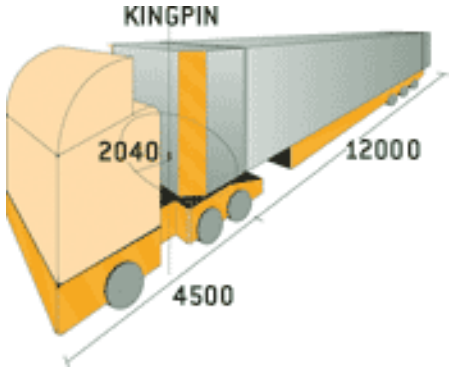
**Especially heavy loads, liquids and dangerous goods are often transported in CT as long as general weight limit remains 40 t in some European states.**
**44 t exemption for terminal traction should be for all intermodal loading units.**

# All types of 45 foot containers should be accepted











**15 additional cm allow the transport of all types of 45 foot containers on road without rounded corner fittings. On rail all can be transported and may replace semi-trailers having the same load capacity but higher dead weight**

# Better control of weights and dimensions



## Weights

More controls and harmonised fines are welcome and the co-responsibility of the shipper is important for safety on road and in Combined Transport on rail.

## Dimensions

While it can happen, that a truck is loaded over its limits and it is not recognised by the driver, it cannot happen that the dimensions are accidently exceeded.
Instead of fines: no  tolerances like on rail.

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# THANK YOU

## For your attention