

BLACK SEA TRANSPORT CORRIDORS 2025

INTERMODAL SOLUTIONS: COOPERATION IS KEY

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UIRR: the community, cooperation is key

PARTNERS



MOU PEERS



UIRR OPERATORS



UIRR TERMINALS



INDUSTRY ASSOCIATION PEERS

GOVERNMENTAL BODIES

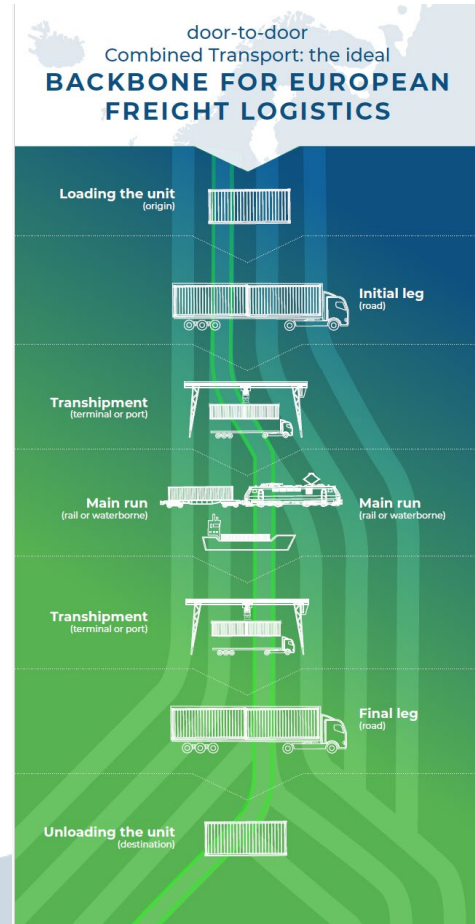


Baseline: the “backbone of land freight transport over 300km”



THREE QUESTIONS:

1. How does Combined Transport compare to unimodal trucking if performing in the capacity of “backbone of land freight transport over distances of 300km”?
– *efficiency + productivity performance*
2. How much modal shift would be needed until 2050 to qualify Combined Transport as “the backbone”?
– *1000 billion tonne kilometres*
3. Are the preconditions of Combined Transport to becoming “the backbone” realistic and affordable?





The Efficiencies of Combined Transport: a study done for UIRR

ENERGY / IMPORTED FOSSIL FUEL DEPENDENCY

Door-to-door Combined Transport uses **70% fewer kilowatt-hours of energy to produce a tonne-kilometre of transport performance** compared to the unimodal long-distance trucking alternative.

The energy used by Combined Transport is dominantly grid-electric, which means a **direct supply from Europe's increasingly carbon-neutral power generation**, thereby reducing the continent's dependence on imported fossil fuels.



INFRASTRUCTURE

The infrastructure of non-road means of transport is more suited to accommodate the heavy axles required by efficient freight transport than road.

The **per tonne-kilometre infrastructure degradation of door-to-door Combined Transport is thus a fraction of that of its unimodal road alternative**. Slower road degradation means less frequent road-works resulting in reduced disruptions and works-related congestion.



How does Combined Transport measure up?

EFFICIENCY AND COMPETITIVENESS



LABOUR PRODUCTIVITY, WORK/LIFE BALANCE

The number of **tonne-kilometres produced per worker employed in a door-to-door Combined Transport operation is multiple times higher** than that of workers active in the unimodal trucking alternative. At the same time, Combined Transport jobs offer a **superior work/life balance** to the workers, especially in comparison to truck drivers, promising to alleviate the looming truck driver shortage.



SAFETY: ACCIDENTS AND CONGESTION

More Combined Transport not only slows road degradation, but also contributes to a dramatic reduction in accidents due to the superior safety performance of non-road modes. This has a further **positive impact on the frequency and extent of road congestions** thus reducing the external costs of freight transport.

CLIMATE AND THE ENVIRONMENT

The harmful emissions of door-to-door Combined Transport, such as **PM10, PM2.5, NOx and ozone**, are a fraction of those produced by unimodal trucking. The greenhouse gas emissions of Combined Transport are up to **90% lower than that of the unimodal trucking alternative**. Zero-carbon door-to-door Combined Transport has been demonstrated to be viable with products and technologies already on the market today, making it **the most cost-effective solution for Europe**.



What does this mean for the European economy in monetary terms?



ANNUAL SAVINGS FROM 2050

- ✓ 70% better energy efficiency = **€70 billion**
- ✓ 50% road infrastructure maintenance expense reduction = **€20 billion**
- ✓ 60% better labour productivity + improved work/life balance = **€47 billion**
- ✓ 95% fewer accidents per tonne-kilometres = **€70 billion**
- ✓ Up to 90% fewer air pollutant and greenhouse gas emissions = **€17 billion**
- ✓ 50% estimated reduction of road congestion = **€90 billion**



The annual contribution to the public budgets and to European economic actors would amount to **€314 billion**, which is equal to **€222 billion** net of present day internalisation charges (paid through taxes and charges).



Shippers and consignors should implement philosophical changes



- ✓ **Critical Mass** to be achieved by entrusting all regular cargo flows to Combined Transport
 - **Increased frequency** -> improved reliability and journey speed -> reduces working capital need
 - **Regular trains** -> better, routine handling by both traffic managers and traction service providers -> better punctuality
 - **Routine reception at terminals** -> emergence of dedicated CT road-leg hauliers -> improved positioning of consignments
- ✓ **Mixed cargo to Combined Transport:** not only heavy (high density) but also light (low density) cargo
 - **740m long trains** can not be filled by exclusively heavy consignments (-> longer trains reduce costs and thus lower prices)
 - **Mixed cargo within the intermodal loading unit** -> high- and low-density cargo can enable optimal loading room utilisation



Limited investments targeted to freight needs



- ✓ **TEN-T railway infrastructure** on selected lines and with a focus on technical parameters for freight
 - **Train length and axle load** -> 740m long trains and 22,5t axles
 - **4m loading gauge** -> needed for the carriage of semi-trailers in regular pocket wagons
 - **Electrification** -> both main lines and last mile rail connections to/from terminals
- ✓ **Intermodal assets** such as rolling stock, loading units, terminals and digitalisation
 - **Various types of intermodal wagons**
 - **Intermodal loading units** -> high- and low-density cargo can enable optimal loading room utilisation
 - **Terminals** -> upgrades to existing terminals and the construction of new terminals with state aid
 - **Digitalisation** -> both operators and terminals -> enhanced transparency, traceability of intermodal consignments and direct communication with customers



THANK YOU
For your attention