



MED PORTS AND LOGISTICS CONFERENCE

# PORT HINTERLAND CONNECTIONS BY COMBINED TRANSPORT

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# UIRR: the Community of European Intermodal Freight Transport

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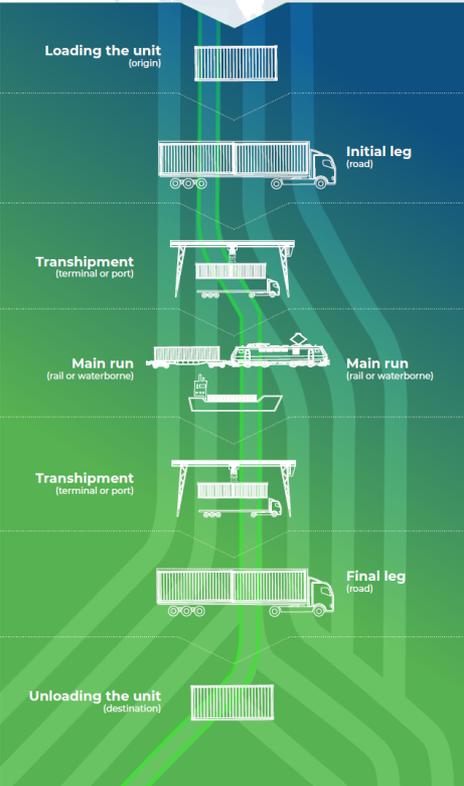
## GOVERNMENTAL BODIES



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



door-to-door  
Combined Transport: the ideal  
**BACKBONE FOR EUROPEAN  
FREIGHT LOGISTICS**





# 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 roadworks resulting in reduced disruptions and works-related congestion.

How does the intermodal alternative 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**.

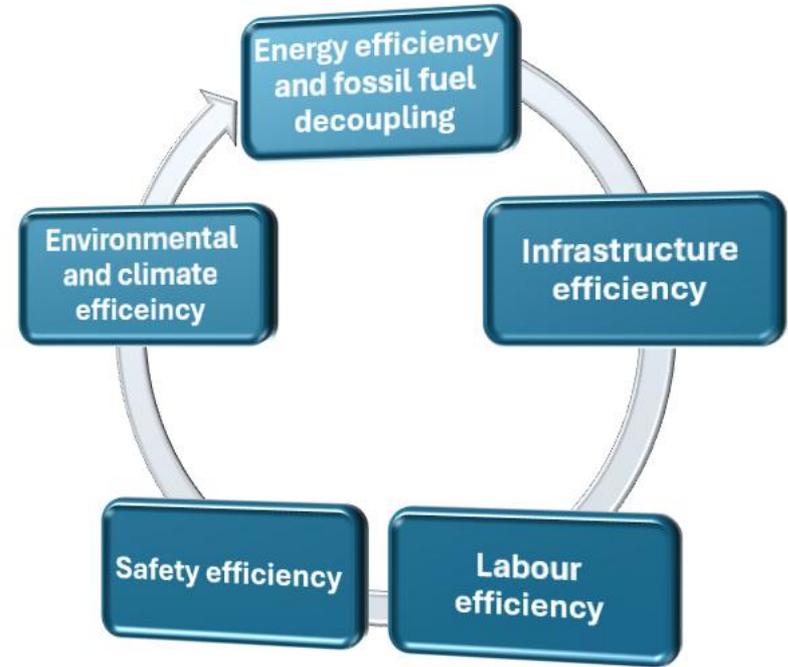


## The results in numbers: exceptional performance



Combined transport – compared to unimodal truck transport – can deliver meaningful results in every examined dimension:

- **70%** better energy efficiency
- **Up to 50%** road infrastructure maintenance expense saving
- **60%** better labour productivity and improved work/life balance
- **95%** fewer accidents per tonne-kilometres
- **Up to 84%** fewer air pollutant and greenhouse gas emissions
- **50%** reduction of road congestion related to maintenance works and accidents





## 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).



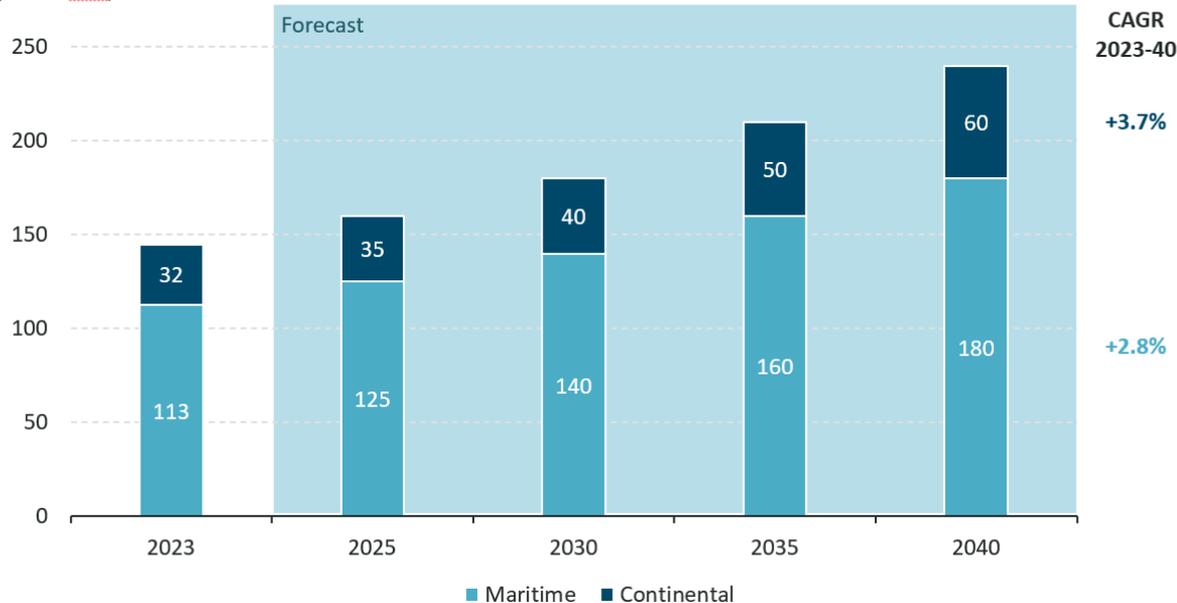
## Shippers and consignors should implement philosophical changes



- ✓ **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

## The market for Combined Transport by rail is forecast to grow by 3% p.a. until 2040

Development of unaccompanied CT rail transport performance by transportation type (billion tkm)



- SCI Verkehr expects further growth of unaccompanied Combined Transport by rail until 2040. **In 2040, the market will be around two thirds bigger than in 2023.**
- With a compound annual growth rate of 3.7% between 2023 and 2040, **continental transport should grow at a higher rate than the overall market** and almost double by 2040. This development should be mainly driven by the currently planned and further expected expansion of the continental network, especially in markets like Spain, France and Poland. In 2040, continental transport's share of the Combined Transport market will be 25% compared to 22% in 2023.



THANK YOU  
For your attention