

### TAG Meeting, Digital

Enabling terminals to accommodate longer trains : A way to enhance railfreight competitiveness A financing issue ? The case of Germany Frederic BUYSE 2020, December, 3





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### Agenda

- 1. Rôle of the terminals in the supply chain
- 2. Functions of terminals in the transport chain
- 3. Drivers of terminal performance in the transport chain
- 4. Terminal Infrastructure and network accessibility
- 5. Cost of the FM/LM operations and TSP in the Rail-Road
- 6. Subventions Policies enhancing CT competitiveness
- 7. German Case
- 8. Conclusions



# Rôle of Intermodal terminals in the supply chain





- Teminals are not limited to transhipment operations
- Terminals creates value by offering a complete set of ancillary services to their customers

### Statement : Terminals can be seen as an additional cost

Source of graphs : 2017, Environmental development, Road-rail intermodal freight transport as a strategy for climate change mitigation



### Functions of terminals in the transport chain

 Terminals have different functions depending on their roles in the transport chain



### Statement : terminals should contribute to AV in the SC

Source: https://transportgeography.org/?page\_id=1411



## Drivers of terminal performance in the transport chain

- Location
- Accessibility (connections)
- Infrastructure
- Equipment

 ⇒Infrastructure considerations are essential as they must accommodate current traffic and anticipate future trends along with technological and logistical changes
⇒Longer trains accommodated in a proper way means a reduction of unit cost for the CTO



# Terminal Infrastructure and network accessibility

### First / Last Mile considerations

- Rail access
- Operation of the rail access to terminals

Figure 3-2: Basic components of CT terminals

Check-in/check-out area (gate)

Handling/transhipment tracks

Interim storage space

Road access

Loading and driving lanes

Parking tracks —

Source: KTL Kombiterminal Ludwigshafen

Rail access

Investment cost indications
70M€-80M€ - 100K units / year

### Statement : Invest in proper Infra enabling reduction of Source: https://diomis.uic.org/IMG/pdf/DIOMIS4\_final.pdf



## Cost of the FM/LM operations and TSP in the Rail-Road



First / Last Miles amount between 30% and 50% of the total rail freight costs

- -> invest in infra (parking tracks, reception bundles)
- -> electrification (direct connection and Schwungeinfahrt...)

Statement : proper connection to the network can save up to 80% of rail FM/LM operation costs



# Subventions Policies enhancing CT competitiveness

2 visions

#### Supporting Terminal development (Infra & Equipment)

- Direct impact
- Lowers the cost of transhipment operations
- Lowers the costs of access to the terminal
- Example: DE, (BE via ERDF, LU via SA)

Supporting Operations of rail-road services

- Indirect impact
- Lowers the cost of CT services

Example: BE, FR, LU (not DE)



# German Case – basic description

• German system(s)

Budgets

#### **Supporting Terminals & Sidings**

Terminal Infrastructure
State owned terminals (DB)
Third-party terminals (up to 80% of costs)

- Budget
  - DB Dotation
  - ✓ 2019 : 90M€
  - ✓ 2020 : 60M€

Terminal sidings (Anschlussbahn) \*

✓ 20M€

### Statement : Budgets are not fully used

(\*) not limited to CT Terminals



### Constraints of the German Case

#### Based on legal commitments

- 20 years commitments
- Cost side of Eligibility
  - Rolling lanes and infrastructure does not last 20 years
  - ✓ Replacement of infra & equipment is not eligible (only RS twice), RMG, RTG excluded
    - A RS lasts max 6 years
  - Not all costs eligible -> up to 80% under strict investigation of EBA (technical) and BMVT (Business Case)
  - Upgrade of terminals is not eligible (not described in law)
- Revenue side Eligibility constraints
  - ✓ Strict control of the transhipment rate 23,5€ (in 2020)
  - ✓ Up to 80% of initial costs are eligible (20% remaining costs can amount >23,5€/ tr)

#### Statement : The system does not take the life (\*) not limited to CT Terminals (\*) not limited to CT Terminals



### Conclusions

- Infrastructure of terminals and terminals connexion are important drivers of costs in railfreight
- At corridor level have an impact study of the required upgrades of terminal & siding infrastructures in order to accommodate long trains
  - Depending on the function(s) of the terminal
  - The expectations in terms of ROI for the total transport chain
- Supporting policies should take into consideration the whole life cycle of the terminal and its connection to the network
  - Supporting policies should combine support to Infrastructure and operations (Supporting CTO)

(\*) not limited to CT Terminals



### Questions ?

(\*) not limited to CT Terminals



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