Introduction

The “2014 Report on Combined Transport in Europe” was researched and prepared on behalf of UIC by BSL Transportation Consultants (www.bsl-transportation.com) and provides detailed information of the combined transport industry in 2013 of which the following slides propose only an overview.

The full Report proposes a wealth of information on:

- Market structure
- Volume figures per market segment
- Country O-D matrix of transport volumes
- Terminal assessment
- Seaport activity
- Rail Freight Corridor information and modal split
- Overview of national support measures in favor of combined transport
- Market outlook
In Europe, rail transport in intermodal units has developed more favourable than the overall rail freight transport during the last decade.

RAIL MARKET DEVELOPMENT

- Intermodal rail transportation in containers and swap bodies has been showing continuous growth since the 2009 global economic crisis.
- Major drivers for the fast growth of rail transport in intermodal units were increases in intermodal hinterland transportation but also the rising number of international transport services.

Source: Eurostat (2014), BSL Transportation Consultants
In order to provide a comprehensive dataset on combined transport in Europe, information on several market segments has been collected.

OVERVIEW MARKET SEGMENTS

- Combined transport in the 2014 UIC Report on Combined Transport in Europe
  - focuses on rail/road-services

Source: BSL Transportation Consultants
The basic market segmentation differentiates between loading units and whether they are personally accompanied during rail transport.

FORMS OF COMBINED TRANSPORT

**Unaccompanied CT**
- Intermodal loading units are transported unaccompanied by rail, i.e. without a truck driver on the train.
- Transhipment between road and rail takes place at terminals, usually by gantry cranes or reach stackers.
- Pre-carriage from the loading site to the consignment terminal/ on-carriage from the receiving terminal to the final destination is performed by truck.

**Accompanied CT “Rolling road/motorway”**
- Lorries are carried on purpose-built low-floor wagons, while drivers travel in seated accommodation or couchettes.
- Transhipment between road and rail takes place at terminals, using mobile ramps.
- Limited to set routes, e.g. transalpine.
- Particular requirements needed, e.g. purpose-built wagons.

Source: BSL Transportation Consultants, UIC
Unaccompanied as well as accompanied combined transport can be carried out in domestic or in international ("cross-border") CT services

**GEOGRAPHICAL SCOPE OF CT**

- **Domestic CT**
  - A combined transport loading unit is conveyed
    - on a national service
    - between two terminals located in a single country
    - independent from whether the final origin and/or destination of cargo is in this country

- **International CT**
  - A combined transport loading unit is shipped
    - on an international service
    - between two locations in separate countries ("cross-border CT")

Source: BSL Transportation Consultants, UIC
The combined transport market can also be segmented based on the focus of the transport chain, i.e. continental or maritime

FOCUS OF TRANSPORT CHAIN

<table>
<thead>
<tr>
<th></th>
<th>Continental CT</th>
<th>Maritime/ container hinterland CT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical focus</td>
<td>■ Movement of cargo which is sourced in/ bound for a location within Europe</td>
<td>■ Movement of goods between European seaports and inland destinations</td>
</tr>
<tr>
<td></td>
<td>■ Incl. short-sea transport between European mainland and the UK and Ireland</td>
<td>■ Mainly trans-continental cargo with origin or destination overseas</td>
</tr>
<tr>
<td>Equipment used</td>
<td>■ Particularly domestic freight containers, 45’ non-ISO containers, swap bodies and semi-trailers</td>
<td>■ Almost exclusively standard ISO containers (8’ wide, 8’6” high, 20’, 40’ or 45’ long)</td>
</tr>
<tr>
<td>Scope of logistical services</td>
<td>■ Terminal-to-terminal services</td>
<td>■ Usually port-to-door services</td>
</tr>
<tr>
<td></td>
<td>■ But more and more pre- and post-haulage on road</td>
<td>■ Incl. supplementary logistics services such as pre- or on-carriage by road, customs clearance or empty depot services</td>
</tr>
</tbody>
</table>
The combined transport industry involves a number of market players with partly overlapping functions.

**KEY MARKET PLAYERS**

- Combined transport services are provided by CT operators who
  - act as independent intermediaries or brokers between railway companies and potential customer groups
  - purchase transport capacity from rail companies with volumes
- Increasingly, other stakeholder groups which act as CT operators also offer CT services
- Trend of past years towards more logistics service providers taking over the operator role continues, particularly in Western Europe

**Provider of CT services**

- „Classical“ Combined Transport operators
- Railway undertakings in operator role

**Further market participants**

- Seaports
- CT Terminals
- Others, e.g. inland ports

**Key customer groups**

- Shippers
- Shipping lines
- Forwarders and logistics service providers

Source: BSL Transportation Consultants, UIC
To provide a comprehensive overview on CT in Europe, market players from more than 30 European countries were identified and contacted.

COUNTRIES COVERED

The report is based on different complementary sources which also include a plausibility check:

- A comprehensive data base from an online questionnaire for all relevant market players
- Expert interviews with representatives of different stakeholder groups
- Desk research involving the most relevant data sets and statistics for different market segments (e.g. UIRR, AGORA and Eurostat)

Source: BSL Transportation analysis
Compared to 2011, the total volume of combined transport in Europe in TEU increased by 9%.

DEVELOPMENT OF TOTAL CT VOLUMES

Since the downturn following the global economic crisis in 2009, unaccompanied combined transport has been exhibiting a continuous growth – in terms of TEU and tonnes.

Total CT market increase is fully driven by the unaccompanied market segment, while the accompanied CT volume decreased in TEU as well as in tonnage.

In 2013, the unaccompanied CT segment’s market share amounts to approx. 95% of the total CT market.

<table>
<thead>
<tr>
<th>Segment</th>
<th>2005</th>
<th>2007</th>
<th>2009</th>
<th>2011</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT volume unaccompanied</td>
<td>145.5</td>
<td>181.5</td>
<td>164.6</td>
<td>191.8</td>
<td>203.0</td>
</tr>
<tr>
<td>CT volume accompanied</td>
<td>10.2</td>
<td>13.6</td>
<td>15.1</td>
<td>14.9</td>
<td>10.8</td>
</tr>
<tr>
<td>Total</td>
<td>155.7</td>
<td>195.1</td>
<td>179.7</td>
<td>206.7</td>
<td>213.8</td>
</tr>
</tbody>
</table>

Source: BSL Transportation analysis, UIRR
The 2014 report on CT is enhanced by four spotlight analyses on current topics relevant for the CT market in Europe

SPOTLIGHT ANALYSES

- Analysis of the RFCs implemented in 2013
- Key corridor characteristics relevant for CT (volume, main origins, modal split)
- Impact of RFC implementation on CT volumes
- Development of container throughput in Europe
- Analysis of hinterland transportation (modal split, main operational needs)
- Outlook and perspectives for CT

**EU Rail Freight Corridors**

**CT Terminals**

- Analysis of CT terminals connected with RFCs
- Main challenges seen by market players
- List of major rail-road CT terminals
- Overview of national measures in favour of CT
- Analysis of scope of funding
- Differentiation based on funding sector

Source: BSL Transportation Consultants
For each of the six corridors already implemented, the key corridor characteristics relevant for CT are presented

KEY CHARACTERISTICS OF RFCS (EXAMPLE RFC1)

- Nine Rail Freight corridors were defined throughout Europe (six launched in 2013, three will be implemented in November 2015).
- The RFCs are supposed to promote rail freight transport in Europe, in order to increase rail shares in the transport market.
- The current rail share in the corridor’s modal split and its composition in intermodal and conventional traffic differs among the corridors.

Source: BSL Transportation analysis, RFC1 implementation plan V1.0, interview with corridor representatives
For each rail freight corridor, the terminal infrastructure as one of the potential bottlenecks is analysed

TERMINALS CONNECTED WITH RFCS (EXAMPLE RFC2¹)

1) In 2016 corridor extension of RFC2 to the UK.

- The intermodal terminal landscape in Europe is very complex with a large number of market players
- Challenge: what is a terminal? Various terminal definitions in place
- The development of intermodal transport terminals along the Rail Freight Corridors is one key element of the corridor implementation
- Assessment of terminal infrastructure in connection with each RFC

Source: BSL Transportation analysis, RFC2 implementation plan
Sufficient capacity of hinterland corridors and reliable services are considered to be extremely relevant to promote CT in Europe

RAIL HINTERLAND TRANSPORTATION

Maritime CT represents a key segment of the European CT market

The development of hinterland transport volumes, and thus maritime CT, is closely related to the development of seaborne container throughput at major seaports

European ports where rail traditionally plays a key role in hinterland transportation are the North Range ports Hamburg and Bremerhaven, but also Koper and Trieste in the Mediterranean

Largest absolute hinterland volumes in Hamburg (>2.1m TEU) and Bremen (> 1m TEU)

Rail share of hinterland transport 2013 (only gateway-traffic)

Source: BSL Transportation analysis, various port authorities, Portopia, partly estimates (see report for further details)
To cope with the expected further growth in hinterland transportation, sufficient capacity and reliable services are considered relevant.

**HINTERLAND TRANSPORTATION – MAIN NEEDS**

Assessment of main operational needs of hinterland transportation to promote combined transport [from 1 (least relevant) to 5 (most relevant)]

- The medium-term growth perspectives for container handling in European seaports will remain positive, particularly in Eastern Europe.
- For container hinterland CT, this implies that more demand for maritime intermodal solutions may be expected particularly in Eastern and Southern Europe.
- In regards to
  - promoting CT in hinterland transportation and
  - coping with higher transport demand, resulting from increasing container throughput, sufficient capacity of hinterland corridors and reliable services are considered as extremely relevant.

Source: BSL Transportation analysis
Most of the identified measures in favour of CT are operational, while infrastructural measures mainly concern rail combined transport.

**NATIONAL CT MEASURES**

- Ten countries are identified with current national programmes (in 2014 in force) to support CT activities.
- Measures that aim at supporting operational activities amount to more than 50% of all identified programmes.
- The infrastructural measures mainly concern rail combined transport, while research and operational programmes cover all kinds of funding scope or combined transport without further specification.

Source: BSL Transportation analysis, national authorities
The expected average growth for CT amounts to approx. 4% p.a. varying widely among the individual company’s assessments.

**CT MARKET OUTLOOK**

How do you expect your company’s total combined rail/road transport volume to develop in the upcoming years (in %)?

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average expectation 2013 to 2014</td>
<td>+4.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average expectation 2014 to 2015</td>
<td></td>
<td>+3.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average expectation 2014 to 2016</td>
<td></td>
<td></td>
<td>+6.0%</td>
<td></td>
</tr>
</tbody>
</table>

1) Weighted average (based on volumes)

- Actual CT volume growth from 2011 to 2013 (+8.9%) outperformed expectations of market participants two years ago (+3.5%)
- The future expectations regarding the CT market remain optimistic with an expected average growth rate of approx. +4% p.a. for the next years
- Companies’ individual forecasts of expected growth rates differ considerably ranging from -5% to more than 100% p.a.

Source: BSL Transportation analysis
Further potential for combined transport is expected particularly on the rail corridor towards Eastern Europe and Turkey

**FURTHER CT MARKET POTENTIAL**

“We expect further potential for combined transport on the rail corridor towards…”

<table>
<thead>
<tr>
<th>Region</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Europe</td>
<td>4%</td>
<td>56%</td>
<td>40%</td>
<td>96%</td>
</tr>
<tr>
<td>Turkey</td>
<td>6%</td>
<td>47%</td>
<td>37%</td>
<td>84%</td>
</tr>
<tr>
<td>Central Asia</td>
<td>6%</td>
<td>19%</td>
<td>44%</td>
<td>17%</td>
</tr>
<tr>
<td>North and East Asia</td>
<td>6%</td>
<td>23%</td>
<td>33%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Remaining % = no comment

Source: BSL Transportation analysis
Full Report Contents

For further information and purchase of the Report (hard copy and cd rom), please contact gehenot@uic.org