COSMOS Project

Objectives

- Fostering the development of (combined) intermodal transport in South-East Europe
- **Cooperative Solutions for Managing Optimized Services** (COSMOS)
- www.intermodal-cosmos.eu
- Co-financed by the European Commission in the framework of a Marco Polo Common Learning Action
COSMOS Project

Partners

<table>
<thead>
<tr>
<th>Company</th>
<th>Country</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>KombiConsult</td>
<td>Germany</td>
<td>Consultancy (Lead Partner)</td>
</tr>
<tr>
<td>Adria Kombi</td>
<td>Slovenia</td>
<td>Intermodal Operator</td>
</tr>
<tr>
<td>Bohemiakombi</td>
<td>Czech Republic</td>
<td>Intermodal Operator</td>
</tr>
<tr>
<td>Crokombi</td>
<td>Croatia</td>
<td>Intermodal Operator</td>
</tr>
<tr>
<td>DB Schenker Austria</td>
<td>Austria</td>
<td>Logistics Service Provider</td>
</tr>
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<td>DB Schenker Bulgaria</td>
<td>Bulgaria</td>
<td>Railway Undertaking</td>
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<td>DB Schenker Romania</td>
<td>Romania</td>
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</tr>
<tr>
<td>Ecologistics</td>
<td>Bulgaria</td>
<td>Terminal Owner/Operator</td>
</tr>
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<td>Gysev Cargo</td>
<td>Hungary/Austria</td>
<td>Railway Undertaking</td>
</tr>
<tr>
<td>HaCon</td>
<td>Germany</td>
<td>Consultancy, IT</td>
</tr>
<tr>
<td>Lokomotion</td>
<td>Germany</td>
<td>Railway Undertaking</td>
</tr>
</tbody>
</table>

Series of Round Tables

1st Round Table Slovenia
23 April 2013
Round Table

Co-ordinate the findings and innovative ideas of the nucleus partners and CREAM and DIOMIS studies

Round Table

Intermodal Operators

Ministry of Transport

Railway Undertakings

Terminal Managers

Infra-structure Manager

Other Stakeholders

Customers

Round Table - Slovenia

Participants

<table>
<thead>
<tr>
<th>Type</th>
<th>Institution</th>
<th>Contact Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoT</td>
<td>Ministry of Transport (Miloš Pregl), Igor Prinic</td>
<td></td>
</tr>
<tr>
<td>Public Agency</td>
<td>for Railway (Boris Živec)</td>
<td></td>
</tr>
<tr>
<td>Infra</td>
<td>Slovenske železnice (infrastructure unit) (Bojan Kekec, Marjan Traven)</td>
<td></td>
</tr>
<tr>
<td>Railway</td>
<td>Slovenske železnice (cargo unit) (Ms Melita Rozman Dacar) Robert Gaber, Dejan Ban</td>
<td></td>
</tr>
<tr>
<td>Adria Transport</td>
<td>(Matjaž Mesec)</td>
<td></td>
</tr>
<tr>
<td>RCA – Rail Cargo Austria</td>
<td>(Ivan Novak)</td>
<td></td>
</tr>
<tr>
<td>Intermodal OPs</td>
<td>Adri Kombi (Jurez Mervak)</td>
<td></td>
</tr>
<tr>
<td>Adria Transport</td>
<td>Integrail, Hungaria Koper (Ljudka Ramac)</td>
<td></td>
</tr>
<tr>
<td>Mettrans Adria</td>
<td>d.o.o., Koper (Goran Softic)</td>
<td></td>
</tr>
<tr>
<td>Port</td>
<td>Port of Koper Authority (Marko Babič, Andrej Cah, Alan Radin)</td>
<td></td>
</tr>
<tr>
<td>Ships agent</td>
<td>Slovenian Ships Agent’s Association (Emil Bandelj)</td>
<td></td>
</tr>
<tr>
<td>Forwarder</td>
<td>Forwarders Association (Robert Sever)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Association of Chamber of Commerce (Robert Sever)</td>
<td></td>
</tr>
<tr>
<td>Gysev Cargo</td>
<td>(COSMOS Partner) (Peter Levay, Peter Kontor)</td>
<td></td>
</tr>
<tr>
<td>KombiConsult</td>
<td>(COSMOS Partner) (Uwe Sondermann) (invited and excused)</td>
<td></td>
</tr>
</tbody>
</table>
Round Table - Slovenia

Methodology

- discuss the recent achievements, status quo and future prospects of intermodal transport in Slovenia
- achieve a consent about the growth perspective and coordinate regulative, financial and operational measures that will be necessary to foster the increase of intermodal rail services
- Identify relevant actors and time horizons for the realization of the intermodal strategy
- Summarize a "road map on intermodal transport" in Slovenia

Agenda

10:00 Welcome and Introduction
10:10 Status quo of the intermodal sector in Slovenia
10:45 Discussion by topic
   - Infrastructure
   - Port and Terminals
   - Port Hinterland Services
   - Continental Services
   - Special Case of Rolling Motorway
   - Incentive Schemes
12:30-14:00 Joint Lunch
14:00 Continued Discussion and Actions
15:30 Conclusions
Analysis of current CT market

General country information

- Area: 20,273 km²
- Population: ~2.02 million
- Density of population: ~99 / km² (Germany: 229)
- Most city population:
  - 1. Ljubljana 281,000
  - 2. Maribor 111,000
  - 3. Kranj 53,000
  - 4. Celje 48,000
- Further economical sites: Koper (port)

Analysis of current CT market

Roles in the physical transport (supply and value) chain

Source: KombiConsult analysis; „Combined Transport (CT)“ and „intermodal transport“ are used synonymously
Analysis of current CT market

Infrastructure manager(s)

- Public railway infrastructure is a public good in general use, owned by Republic of Slovenia
- Can be used on equal terms by all interested applicants (railway undertakings)
- Conditions prescribed in:
  - Law on Railways Act
  - Network Statement (updated and published annually)
  - Network Statement is prepared by SZ - Infrastructure Ltd. and confirmed by the Public Agency of the Republic of Slovenia for Railway Transport (AZP).
- Railway structure in port of Koper under concession of the Port of Koper Plc

Source: Round Table, KombiConsult analysis

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Analysis of current CT market

Railway Undertakings (focus on freight)

<table>
<thead>
<tr>
<th>Railway Undertaking (and further information)</th>
<th>Market share related to tkm (2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slovenske Zeleznice Freight Transport Ltd. (main &quot;incumbent&quot; RU)</td>
<td>91.6%</td>
</tr>
<tr>
<td>Rail Cargo Austria AG, Wien (Austria) (license since 7/2008)</td>
<td>6.3%</td>
</tr>
<tr>
<td>Adria Transport, Koper (Joint venture of the Port of Koper and GKB)</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

Source: Public Agency of the Republic of Slovenia for Railway Transport, 2013, KombiConsult analysis
Analysis of current CT market

Intermodal Operators

- Adria Kombi, Ljubljana with its international partner companies (Bohemiakombi, Cemat, Crokombi, Rocombi, Kombiverkehr)
- Baltic Rail, Tallin (in cooperation with Adria Transport)
- Cargo Centre Graz (CCG), Graz (in coop. with Adria Transport)
- IntegRail, Koper/Budapest
- Mettrans, Praha
- Rail Cargo Austria, Wien (as former Intercontainer Austria and Ökombi, for RoLa-services)
- Shipping lines and forwarders to a small extend
- ERS and ARGO do not provide services, currently

Development of intermodal traffic 1999-2011

- Total Intermodal Transport
- Unaccompanied - Total
- Transit
- International - Import
- International - Export
- National
- Accompanied "RoLa"

Source: SORS, KombiConsult analysis
Analysis of current CT market

Development of intermodal traffic 1999-2011

Loading Units (ITU) **Unaccompanied Intermodal Transport**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Transit</th>
<th>International - Import</th>
<th>International - Export</th>
<th>National transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>50,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>70,000</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>90,000</td>
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<td></td>
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<td>2002</td>
<td>110,000</td>
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<td>2003</td>
<td>130,000</td>
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<td>2004</td>
<td>150,000</td>
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<td>2005</td>
<td>170,000</td>
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<tr>
<td>2006</td>
<td>190,000</td>
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<td></td>
<td></td>
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<tr>
<td>2007</td>
<td>210,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2008</td>
<td>230,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2009</td>
<td>250,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>2010</td>
<td>270,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>290,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** SORS, KombiConsult analysis

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Intermodal traffic by country (2011)

International intermodal traffic to/from Slovenia (without transit)
Remaining share = other countries

**Source:** Report on Combined Transport 2012, KombiConsult analysis
Round Table Slovenia

Agenda

10:00 Welcome and Introduction
10:10 Status-quo of the intermodal sector in Slovenia
10:45 Discussion by topic

<table>
<thead>
<tr>
<th>Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port and Terminals</td>
</tr>
<tr>
<td>Port Hinterland Services</td>
</tr>
<tr>
<td>Continental Services</td>
</tr>
<tr>
<td>Special Case of Rolling Motorway</td>
</tr>
<tr>
<td>Incentive Schemes</td>
</tr>
</tbody>
</table>

12:30-14:00 Joint Lunch
14:00 Continued Discussion and Actions
15:30 Conclusions

Analysis of current CT: infrastructure

Rail infrastructure

- characteristics:
  - total length of network: 1,228 km
  - of which 503 km (41%) are electrified
  - of which 897.7 km single and
  - of which 330.9 km double track

- shunting yards
  - Celje cargo
  - Koper cargo
  - Ljubljana Zalog
  - Maribor Tezno
Generally all single track sections on main lines were identified as bottlenecks for intermodal services.
1st priority for required improvement: Koper – Divača
1st step: 600 rather than 500m train length (+20%)
2nd step: 2nd line independent from the existing
Electrification of the rail network

Electrification Pragersko – Hodos expected to be completed by 2015
2nd priority for required improvement (electric traction, higher punctuality)

Villa Opicina
Dobova
Border crossing/Interchange station
No bottleneck, due to EU internal border and good processes.

Source: Network Statement 2013; KombiConsult analysis
Analysis of current CT: infrastructure

Loading profiles for intermodal transport

No bottleneck inside SI on mayor lines for CT

Minimum required for continental CT
PIC 70/400

Source: Network Statement 2013; KombiConsult analysis

Analysis of current CT: infrastructure

Maximum axle load

Bottlenecks, where 20 tons sections on „main lines” Improvement to 22.5 tons (Class D) req.

Source: Network Statement 2013; Round table, KombiConsult analysis
Analysis of current CT: infrastructure

Maximum accepted train length

- 500m
- 560m
- 597m
- 600m
- 570m
- 600m
- 570m
- 600 m sections accepted

Priority increase from 500 to 600m by longer tracks in station Hrpelje-Kozina (ongoing, completed by 2014)

Source: Network Statement 2013; KombiConsult analysis

Analysis of current CT: infrastructure

Infrastructure: Bottlenecks and planned works

- Track class: C3 rather D
- Max. Length 505m
- Max. Weight 1.600 t

Source: Network Statement 2013, KombiConsult analysis
### Analysis of current CT: infrastructure

#### Ongoing and planned improvement works 1/2

- Modernization of signalling and telecommunication devices on Pragersko – Ormoz – Hodoš (completed in 2012)
- Switches renewal on railway lines (ongoing 2012/13)
  - Ljubljana – Dobova
  - Zidani Most – Šentilj,
  - Pragersko – Hodoš and
  - Ljubljana – Jesenice
- Electrification Pragersko – Hodoš (ongoing, expected completion by 2015)
- Implementation of ERTMS/ETCS system on Corridor D (Valencia – Lyon – Turin – Ljubljana – Budapest, due by 2015)
- Implementation of GSM-R system, due by 2015

Source: railwaypro 2012; SZ Infrastructure, KombiConsult/Round Table analysis

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#### Ongoing and planned improvement works 2/2

- Establishing of rail track class D4 (i.e. 22.5 tons axle load) due by 2015 on regulation 913/2010 rail freight corridors
  - #5: (Spielfeld-Strass) - Maribor – Ljubljana - Koper and
  - #6: (Budapest) – Hodoz – Ljubljana – Koper / Sezana - (Trieste)
- Modernization of the existing single track line Divaza – Koper with the extension of the tracks on the station Hrpetje – Kozina (2014)
- Construction of 2nd rail line Divača – Koper, ~ 27 km (managed by DRI Investment Management Ltd, planning prolonged multiple times, uncertain timing and financing, capacity required also for other commodities transshipped in Port of Koper)

Source: railwaypro 2012; SZ Infrastructure, KombiConsult/Round Table analysis
Conclusions for the development

TEN-T Core Network and Corridors (2011)

Challenges:
- EU-Accession of Croatia
- Rail-Transit through Serbia
- Turkish routing via Trieste

Adriatic-Baltic corridor to be routed via Graz/Maribor/Ljubljana/Koper, too.
Additional route: München – Jesenice – Ljubljana – Koper / Zagreb very important.

Source: European Commission; KombiConsult/Round table analysis

Conclusions for the development

Relevant rail freight Corridors (2013)

TEN-T Core Network and Connecting Europe Facility should respect these lines in/towards Slovenia.

EU Regulation 913/2010

N°5
N°6
Additional Corridor
RNE N° 11

Source: European Commission, Rail Net Europe, KombiConsult analysis
Round Table Slovenia

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Analysis of current CT: infrastructure

Intermodal Terminals

Maribor
Celje
Ljubljana
Sezana
Novo mesto* (closed in 2010)
Koper

Source: SZ Network Statement, UIRR, KombiConsult analysis. * railport
Analysis of current CT: infrastructure

Intermodal Terminals

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Handling tracks</th>
<th>Handling equipment</th>
<th>Annual handling capacity (LU)</th>
<th>Handling volume 2012</th>
<th>Utilisation rate</th>
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<tbody>
<tr>
<td></td>
<td>N°</td>
<td>Length (m)</td>
<td>Dantry Mobile</td>
<td>Reported</td>
<td>Calculated</td>
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<td>Koper Luka KT</td>
<td>7</td>
<td>3.129</td>
<td>2</td>
<td>6</td>
<td>260.000</td>
</tr>
<tr>
<td>Ljubljana Moste</td>
<td>8</td>
<td>2.000</td>
<td>1</td>
<td>2</td>
<td>85.000</td>
</tr>
<tr>
<td>Maribor Tezno KT</td>
<td>2</td>
<td>518</td>
<td>1</td>
<td>-</td>
<td>15.000</td>
</tr>
<tr>
<td>Celje Cargo</td>
<td>1</td>
<td>200</td>
<td>1</td>
<td>-</td>
<td>15.000</td>
</tr>
<tr>
<td>Novo mesto</td>
<td>1</td>
<td>200</td>
<td>1</td>
<td>-</td>
<td>8.000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>383.000</td>
</tr>
</tbody>
</table>

Source: SZ Network Statement, Port of Koper, SZ, KombiConsult analysis

Conclusions for the development

Evolution of intermodal rail/road traffic: Impact on terminal capacity

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Handling capacity</th>
<th>Capacity Need</th>
<th>Additional Need</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2020</td>
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</tr>
<tr>
<td></td>
<td>LU</td>
<td>LU</td>
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<tr>
<td>Koper Luka KT</td>
<td>260.000</td>
<td>309.200</td>
<td>49.200</td>
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<tr>
<td>Ljubljana Moste</td>
<td>85.000</td>
<td>105.800</td>
<td>20.800</td>
</tr>
<tr>
<td>Maribor Tezno KT</td>
<td>15.000</td>
<td>30.000</td>
<td>15.000</td>
</tr>
<tr>
<td>Other</td>
<td>23.000</td>
<td>6.800</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>383.000</td>
<td>451.800</td>
<td>85.000</td>
</tr>
</tbody>
</table>

Additional capacity needed to ensure further growth of intermodal transport, e.g.
- more train-long handling tracks and RMG in Port of Koper (projected)
- additional or replaced RMG in Ljubljana to facilitate gateway/hub functions
Detailed market assessment & terminal planning required.

Source: DIOMIS Country Report Slovenia, KombiConsult analysis
COSMOS Round Table Slovenia
Ljubljana, 23.04.2013
Road Map on Intermodal Transport in Slovenia, 31.05.2013, final

Round Table Slovenia

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Evaluation of CT development

Port of Koper – rail services (update 2013)

<table>
<thead>
<tr>
<th>Destination</th>
<th>Operator</th>
<th>Train pairs per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT Graz</td>
<td>CCE/Adria transport</td>
<td>6</td>
</tr>
<tr>
<td>AT Graz (region)</td>
<td>Adria kambi</td>
<td>5 Single Wagon</td>
</tr>
<tr>
<td>AT Villach - Salzburg - Wien</td>
<td>Adria kambi</td>
<td>3 CAPRIS</td>
</tr>
<tr>
<td>BG Ljubljana - Sofia</td>
<td>Adria kambi</td>
<td>Spot Trains</td>
</tr>
<tr>
<td>CZ Dobra u Freduku Muzej</td>
<td>Adria kambi</td>
<td>4</td>
</tr>
<tr>
<td>CZ Vintimil / Pasov</td>
<td>AWT/Adria transport</td>
<td>0 Not in 2013</td>
</tr>
<tr>
<td>DE Ljubljana KT - München</td>
<td>Adria kambi</td>
<td>3</td>
</tr>
<tr>
<td>HR Zagreb</td>
<td>Adria kambi</td>
<td>0 Spot Trains</td>
</tr>
<tr>
<td>HU Budapest</td>
<td>Metrans</td>
<td>10</td>
</tr>
<tr>
<td>HU Budapest BLK</td>
<td>Adria kambi</td>
<td>8</td>
</tr>
<tr>
<td>HU Budapest Torokaliint</td>
<td>Integral</td>
<td>3</td>
</tr>
<tr>
<td>IT Padova</td>
<td>Adria kambi</td>
<td>1 One-way Spot Trains</td>
</tr>
<tr>
<td>PL (Wien) - Slawkow</td>
<td>Baltic Rail/Adria transport</td>
<td>1</td>
</tr>
<tr>
<td>RO Arad</td>
<td>Adria kambi</td>
<td>0 Spot Trains</td>
</tr>
<tr>
<td>SI (Komar) Celje - Maribor</td>
<td>Adria kambi</td>
<td>10</td>
</tr>
<tr>
<td>SI Ljubljana KT</td>
<td>Adria kambi</td>
<td>6</td>
</tr>
<tr>
<td>SK Bratislava UNS</td>
<td>Adria kambi</td>
<td>5</td>
</tr>
<tr>
<td>SK Dunajka Streda</td>
<td>Metrans</td>
<td>14</td>
</tr>
<tr>
<td>SK Zlina</td>
<td>Adria kambi</td>
<td>7</td>
</tr>
<tr>
<td>SRB Beograd</td>
<td>Adria kambi</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>79 train pairs x 2 = trains</td>
</tr>
</tbody>
</table>

≈ 160 trains / week

Source: Port of Koper, Adria Kombi, Adriatransport, Metrans, KombiConsult analysis
Evaluation of CT development

Port of Koper – rail services (update 2013)

Source: Port of Koper, Adria Kombi, Adria Transport, Metrans, KombiConsult analysis

Evaluation of CT development

Port of Koper – development of Ct-transport 1996-2012

Rail-share: ≈ 60% -> „15 train pairs/day”

Source: Port of Koper, KombiConsult analysis
Evaluation of CT development

Port of Koper Container terminal - Overview

- Operational quayside 600 m
- Max allowed draft 11.4 m
- Berths 3
- Railway tracks 3.129 m
- Storage capacity 26,500 TEU
- Reefer points 344
- Total terminal area 270,000 m²
- Est. total annual capacity 750,000 TEU

Source: Port of Koper, KombiConsult analysis

Evaluation of CT development

Port of Koper Container terminal - Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4x STS panamax cranes</td>
<td>40/45 tons under spreader</td>
</tr>
<tr>
<td>4x STS post-panamax cranes</td>
<td>51/65 tons under spreader</td>
</tr>
<tr>
<td>16x rubber-tyred G/C (storage area)</td>
<td>40 tons</td>
</tr>
<tr>
<td>2x rubber-tyred G/C (railway tracks)</td>
<td>40 tons</td>
</tr>
<tr>
<td>11x reach stackers</td>
<td>42 – 45 tons</td>
</tr>
<tr>
<td>7x ECH – empty container handler</td>
<td>7 – 9 tons</td>
</tr>
<tr>
<td>46x yard trucks and 49x trailers</td>
<td></td>
</tr>
<tr>
<td>3x tugmaster (tractor)</td>
<td>25 tons (on 5th wheel)</td>
</tr>
</tbody>
</table>

Source: Port of Koper, KombiConsult analysis
Evaluation of CT development

Port of Koper – Rail track capacities for CT

- Site for a new module: 5 x 700 m rail track + 2 RMG
- Track 22, 23, 24 = 1.989 m
- 11/12 = 540 m
- 19/20 = 600 m

Tracks used for intermodal trains (usable length in m)

Source: Network Statement 2013; Port of Koper, Adriakombi, KombiConsult analysis

Conclusions for the development

Key success factors container hinterland services

- Facilitate “Port of Koper development project” to increase its handling capacity on the sea- and landside (rail terminal)
- Realise the new railway line Koper – Divaca, possibly with an extension to Ljubljana, to reduce travel time and raise capacity
- Increase share of rail in hinterland connections by shuttle services with Port of Koper to major hinterland connections: Graz (AT), Budapest (HU), Dunajska Streda, Zilina (SK)
- Control and management of port-to-door chain by intermodal operators and shipping lines
- Flexibility: preparedness for additional trains; trucking container over the road
- Cost-efficient service
- Empty container depot at competitive rates in port or at hinterland terminal, e.g. Ljubljana at the cross roads of corridors

Source: KombiConsult analysis
### Agenda

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### Evaluation of CT development

**Continental Intermodal Services**

[Map of Continental Intermodal Services]

Source: Adriakombi
Conclusions for the development

Key success factors continental intermodal services

- Upgrade rail infrastructure to increase operational speed and reduce travel time in particular on corridor X [RNE corridor 11]: (Salzburg) – Jesenice - Ljubljana – (Zagreb – Tovarnik - (Belgrade), and corridor V [RFC corridor 6]: (Trieste) – Divaca / Koper – Ljubljana – Pragersko – Hodos – (Budapest)
- Time-schedules geared to the movement of consumer goods: buffer time in departure but early morning arrivals
- 95% rate of punctuality in arrival
- Consistency
- Cost-efficient service
- Processing at intermodal terminals to ensure efficient round trip schedules for trucking companies

Conclusions for the development

Industrialisation of Intermodal Transport

- The market potential on trade lanes from/to and through Slovenia is sufficiently high that intermodal operators in co-operation with railway undertakings should be able to industrialize intermodal production and thus realize major productivity gains, which in turn contributes to improve competitiveness with road:
  - Standardization of processes and technology, including tracking and tracing of consignments
  - Employment of efficient rail production systems: shuttle systems between gateway terminals
  - Advanced interface management
  - Commitment to reliable and consistent services
### Conclusions for the development

#### Sustainability issues

- Catch the opportunities climate policy does create. This argument, in Slovenia, comes along with the need for environmental protection and facilitating of tourist traffic to/from and along the Adriatic coast and the natural resorts, where heavy truck traffic may be seen as a burden for the development and intermodal rail/road transport can be used to relieve the congested roads.

- Seamless international intermodal services:
  - Interoperability on the borders where technically possible
  - Synchronization of processes between railways and operators
  - Data interchange; tracking of shipments

#### State shall ensure level playing field for road and rail

- Harmonised infrastructure access charging for road and rail, including a performance regime on rail that takes into account the current bad running conditions and stipulates infrastructure upgrading.

- Improve border crossing procedures to reduce processing time by one common border station and working times synchronised between state authorities (border police, customs), infrastructure managers and railways working related to train time table where it is not yet implemented, e.g. Slovenia/Croatia.

- Encourage competition with road rather than competition on rail (also towards other routings, e.g. corridor IV Wien – Budapest – Belgrade) and “motorways of the sea” (e.g. Turkey – Trieste).
Conclusions for the development

State shall ensure level playing field for road and rail

- On the basis of information and experience of European countries, the development of intermodal traffic will require incentive measures undertaken by the state, consisting of the following:
  - tax exemption / tax reduction or favourable credits when purchasing means of intermodal traffic (intermodal wagon, craneable semi-trailers, swap bodies)
  - exemption from various traffic bans on transport of loading units by road vehicles from and to terminals
  - investment policy in the sector of intermodal traffic, e.g. intermodal terminals, which is very important for its successful development, because initial investments in the development of intermodal traffic are large and only a process with well-planned material and organizational concept can yield good results.
- Develop CT-Terminal Ljubljana Moste as a gateway terminal to/from Slovenia

Round Table Slovenia

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Analysis of current CT market

Development of intermodal traffic 1999-2011

Accompanied Intermodal Transport ("RoLa")

![Bar chart showing the development of intermodal traffic in Slovenia from 1999 to 2011. The chart includes categories for Total, International Import, International Export, National transport, and Transit.]

Source: SORS, KombiConsult analysis

Analysis of current CT market

Accompanied intermodal traffic services ("RoLa")

![Bar chart showing the consignment volume for different routes from 1998 to 2012. The routes include Maribor - Wels, Ljubljana - Szeged, and Ljubljana - München/Salzburg.]

Source: AdriaKombi, UIRR, KombiConsult analysis
Development of CT Markets

Accompanied Intermodal Traffic („RoLa“)

- RoLa services are rather a political than a market measure
- Depending on a couple of factors, e.g.
  - Transport permissions for international traffic, Visa regulations
  - Driving bans at night, weekends, holidays, or for specific type of goods or trucks
  - Subvention by the state to compensate operational losses (real rail costs vs. marginal truck costs)
- Hardly impossible to forecast
- Becoming less important for Slovenia, if Austrian incentives are not continued

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Analysis of current CT: legal framework

Legal system regulating the field of railway transport

- The Safety of Railway Transport Act – SRTA (ZVZelP) (OJ N° 60/11)
- Decree in train path allocation and the Public Railway Infrastructure usage charge (OJ 38/08), updated
- Commission Decision 2002/844/EC on the amendments of the Directive 2001/14/EC regarding the data of change of the railway timetable;

Source: SZ Freight, Igor Hribar

Analysis of current CT: legal framework

Slovenian Rail Sector since September 2011

- GOVERNMENT
  - MINISTRY OF TRANSPORT
  - DIRECTORATE FOR RAILWAYS AND CABLEWAYS
  - TRAFFIC INSPECTORATE
  - RAILWAY AGENCY

- REGULATOR
  - Part of Agency for Post and Telecommunication (APTA)
  - DRI

- RAILWAY INDUSTRY
  - HOLDING SLOVENIAN RAILWAYS
  - PASSENGER TRAFFIC LLC
  - FREIGHT TRANSPORT LLC
  - INFRASTRUCTURE LLC

- INFRASTRUCTURE
  - INFRASTRUCTURE DEVELOPMENT COMPANY (DRI)
  - Maintenance and reconstruction of rail infrastructure (PSO)
  - Stations (PSO)
  - Traffic management (PSO)
  - Upgrading of rail infrastructure (tendering)

Source: SZ Freight, Igor Hribar
Analysis of current CT: legal framework

Bi-/Multilateral Agreements

- As regards international organisations in the field of railway transport, the Republic of Slovenia has acceded to COTIF and is a member of OTIF.
- With regards to UN membership, representatives of the Republic of Slovenia participated in UN-ECE meetings related to the railway transport. Slovenia is also a signatory to AGC and AGTC agreements and a member of TER.
- After acceding the European Union Slovenia is focusing on implementing the legal framework created in Brussels.

Specific incentive schemes

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<td>International co-operation</td>
<td>AGC/AGTC agreements signed and experts involved in international bodies working groups</td>
</tr>
<tr>
<td>Networks and terminals</td>
<td>No specific governmental action. Railways and intermodal operators are responsible for finance of respective installations</td>
</tr>
<tr>
<td>Financial support</td>
<td>No governmental support for investments and advances</td>
</tr>
</tbody>
</table>
| Fiscal support         | Exemption for the payment of road usage fees (except motorway and tunnel tolls) using the Port of Koper as the port of entry and exit, or using combined transport in Slovenia, if:  
  - its axle weight is < 10 tonnes  
  - its axle weight is > 10 tons, up to a distance of 50 km from the terminal. |
| Regulatory support     | Exemption of traffic taxes on weekends and national holidays, if involved in combined transport by rail or by ship.  
  - Weight exemptions: The increase in the total mass up to 44 tons allowed for:  
    - Vehicles carrying ISO containers of 40’ length  
    - Trailers reinforced for loads in unaccompanied CT  
    - Articulated vehicles for the transport of swap bodies with two or more axles traveling in CT in arrival or departure from terminals. |
Analysis of current CT: legal framework

Specific incentive schemes

- It's remarkable that in particular non financial support actions are applied, while the establishment of terminals and traffic services is left to the engagement of the private sector

- Examples of other countries:
  - (co-)financing of intermodal terminal infrastructure, from national (e.g. Austria, Germany) or regional (e.g. Belgium, The Netherlands) funds
  - Lower track access charges for intermodal block trains
  - (co-)financing or at least progressive depreciation on intermodal equipment (e.g. Loading units) (e.g. Czech Republic)

Round Table Slovenia

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Evaluation of CT: 2001/2011

Evolution of transport modes

Intermodal is the fastest growing transport segment in Slovenia.

Evaluation of CT: 2008/2020

Evolution of intermodal rail/road traffic 2007-2020

Intermodal is on the right track to achieve the forecasted volume, if all measures were taken.
### SWOT Analysis

<table>
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<th>Strengths</th>
<th>Weaknesses</th>
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<tr>
<td>▪ Integration into European corridors</td>
<td>▪ Not competitive railway network (outdated and worn railway means)</td>
</tr>
<tr>
<td>▪ Deep-sea access via the Port of Koper</td>
<td>▪ Connectivity of (currently single track) port line…</td>
</tr>
<tr>
<td>▪ Trade-oriented economy with skilled workforce</td>
<td>▪ No or few „own“ industries</td>
</tr>
<tr>
<td>▪ Turntable for SE-Europe</td>
<td>▪ Lack of logistics centres (only Koper*)</td>
</tr>
<tr>
<td>▪ Tradition in transport</td>
<td></td>
</tr>
</tbody>
</table>

* Ljubljana and Maribor were planned, but not developed until now

Source: KombiConsult analysis, updated 2013

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### SWOT Analysis

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<th>Threats</th>
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<td>▪ Geographical position with respect to important European development axis</td>
<td>▪ Redirection of transit flows to parallel networks due to slow development of public rail infrastructure</td>
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<tr>
<td>▪ Further stabilisation of Eastern Balkans and Turkey European integration will bring increase of transport flows, incl. Rail in transit</td>
<td>▪ Redirection of port handling to neighbouring ports Venice, Trieste or Rijeka due to lack of efficient rail link to/from Koper</td>
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<tr>
<td>▪ Transfer of less demanding production to Asia and imports of goods via Adriatic ports</td>
<td>▪ Increase of number of bottlenecks in rail network due to slow improvement</td>
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<tr>
<td>▪ Development of a „third axis“* Austria-Slovenia-Croatia</td>
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<tr>
<td>▪ Development of higher capacity railway corridors through Slovenia</td>
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* Austrian expression for line Graz – Zagreb – Rijeka, not supported by Slovenia

Source: KombiConsult analysis, updated 2013
Conclusions

Summary after the meeting

- Participants enjoyed the lively discussion and common objective to draw conclusion on measures for the further improvement of the intermodal sector in Slovenia
- Currently 3 railway undertakings and 4 intermodal operators active
- Recently achieved 4.2 million tonnes of goods moved in intermodal transport, thereof 73% unaccompanied and 27% accompanied
- Intermodal transport is the fastest growing transport mode in SI
- Mayor trade lanes are to/from Koper and Hungary / Slovakia
- Intermodal loading gauge and strategic location with respect to trade line in favour of continental intermodal transport, too
- Participants agreed to the major findings of the draft “road map”
- Participants updated the transparencies – when needed – and provide additional informative material that was included into this road map

- Participants support the general growth path of the sector in Slovenia, which could result in a doubling of the volume 2007/2020, even if the realisation would require some work
- Measures of primary importance are:
  - Koper – Divaca: increase of train length from 500 to 600 m by improving one station by 2014 (+20% capacity gain)
  - Electrification Pragersko – Hodos by 2015
  - Removal of 20 tons axle load sections (punctual measures) due by 2015
  - Koper Divaca 2nd rail line
  - Planning and realisation of additional handling capacities in the port/terminals
  - Assuring that TEN-T core network and Connecting Europe Facility are routed according to the Slovenia’s market needs
- Participants concluded to investigate presenting the final outcome via the Chamber of Commerce to the Minister of Transport
Intermodal Road Map Slovenia

Sources of Information

- CREAM Project Reports, www.cream-project.eu
- DIOMIS Project Reports, www.uic.org/DIOMIS
- Statistical Office of Slovenia (SORS), www.stat.si
- Websites, information and data provided by the Round Table Participants
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COSMOS Project, Intermodal Road Map Slovenia, KombiConsult GmbH, 2013, www.cosmos-project.eu

Danke für Ihre Aufmerksamkeit.

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