European Rail Freight going paperless – The e-Rail Freight project

E-Freight 2011 at Transport Logistic

Munich, 10 May 2011

Oliver Sellnick, Director Freight UIC
UIC – a global association with over 200 members around the world
The World-wide organization for co-operation among Railways

Promoting the development of rail transport at world level, in order to meet the challenges of mobility and sustainable development

1. Know How, technical and operational expertise
   - Technical solutions
   - Regulations, standards, best practices

2. Specifications
   - Standards
   - Interfaces
   - Studies
   - Interoperability for international rail corridors

3. Exchange platforms, Innovation: new ideas, new concepts
   - Project management
   - Support policies of development of key infrastructure projects

4. Forums
   - Platforms
   - Study groups
   - International conferences
   - Congresses
Active cooperation of members on freight projects
Key trends rail freight

> Opportunities
  • Growing world trade needs more transportation. **Modal shift** to rail important for sustainable transport
  • Rail freight increasingly integrates into logistic solution
  • International **corridors** in Europe, Asia, the Middle East promoting efficient long-distance rail traffic

> Challenges
  • **Interoperability** and cooperation:
    - intramodal in terms of technology / administration / law / operations
    - but also intermodal connectivity
  • **Productivity**: train length and weight, capacity utilization
  • Integration with customers and **information transparency**
Freight railways expanding around the world
# Market segments of European rail freight

<table>
<thead>
<tr>
<th>Segments</th>
<th>Commodities</th>
<th>Share of volume</th>
<th>Competitive environment</th>
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</thead>
<tbody>
<tr>
<td><strong>Block Train</strong></td>
<td>Coal, Steel</td>
<td>~ 35%</td>
<td>✔ Traditionally barge competition</td>
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<tr>
<td></td>
<td>Construction materials</td>
<td></td>
<td>✔ Focus of intra-modal rail competition</td>
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<td></td>
<td></td>
<td></td>
<td>✔ Price decline</td>
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<td><strong>Wagonload</strong></td>
<td>Chemicals</td>
<td>~ 45%</td>
<td>✔ Focus of road competition</td>
</tr>
<tr>
<td></td>
<td>Paper and pulp</td>
<td></td>
<td>✔ Complex production process, high barriers to entry</td>
</tr>
<tr>
<td></td>
<td>Automotive Steel</td>
<td></td>
<td></td>
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<tr>
<td><strong>Combined traffic</strong></td>
<td>Finished goods</td>
<td>~ 20%</td>
<td>✔ Strong road competition</td>
</tr>
<tr>
<td></td>
<td>Containerized goods</td>
<td></td>
<td>✔ Intermodal Operator and Freight Forwarder as partner</td>
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Regrouping of market players with strong involvement of flag carriers

<table>
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<tr>
<th>Flag carriers acquire or increase their share in private operators</th>
<th>Mergers and acquisitions among private railway operators</th>
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</table>
| • DB Schenker has acquired majority stake at several private railway companies (PCC Rail Polska (Polen), WS (UK), NordCargo (Italy))  
• TX Logistics (now 100% owned Trenitalia)  
• RCA (AT) Linea (FR) | • Hupac has acquired 25% stake in Crossrail which in their turn has acquired Dillen & Le Jeune Cargo  
• VEOLIA (IT) acquired 100% of Rail4Chem (DE) (now Captrain)  
• EVB has acquired a majority share of Mittelweserbahn |

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<th>Flag carriers establish a subsidiary in another country</th>
<th>Co-operation between flag carriers</th>
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| • DB Schenker in Bulgaria  
• Captrain (100% by SNCF) | • DB Schenker Scandinavia  
• Polrail (50% TrenItalia & 50% PKP)  
• Sibelit (SNCF & SBB Cargo & SNCB)  
• Cobra (SNCB Logistics & DB Schenker) |
Current challenges … on the way to achieve the vision of the EC

- From co-operation to co-opetition
- Price decline
- Process redesign TAF TSI
- Homogeneous operational conditions?
- Investment in K / LL break soles
- Aging wagon fleet
- Margin pressure
- European-wide presence or niche?
- Equipping locos with ETCS?
- Investment or access to essential facilities?
Leading railways launched wagonload production alliance

> Zurich, 18 February 2010: signing of alliance and press conference

> Xrail: production alliance

> For international wagonload business

> Uniform production standards
The consignment note and manual

CIM consignment note designed by International Rail Transport Committee (CIT)
Legal Specifications

- e-RailFreight project document “Legal Specifications for the Electronic CIM Consignment Note and the Electronic CUV Wagon Note” of 1 July 2009

- Incorporated into: Appendix 7a GTM-CIT and Appendix 5a GLW-CUV – EDI contract checklist
Functional Specifications

- e-RailFreight project document “Functional Specifications for the Electronic CIM Consignment Note and the Electronic CUV Wagon Note” of 1 July 2009

- Incorporated into following guides: GLV-CIM, GLV-TC, GLW-CUV, GTM-CIT
RAILDATA worked out

- content of the messages
- message structure / data catalogue
- message flow
- definition of codifications / code lists
- rights of access to the data
- mixed system shipments with paper and electronic document
Gradual implementation

<table>
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<th>Communication already realized By RAILDATA members</th>
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<tr>
<td><strong>Step 1</strong></td>
</tr>
<tr>
<td>• Possibility to exchange a fraction of consignment note data</td>
</tr>
<tr>
<td>• Create Transport Dossier message format CTD</td>
</tr>
<tr>
<td>• Only dossier creating carrier is allowed to communicate updates of the transport information.</td>
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<tr>
<td>• Not possible to determine carrier who is in the custody of the goods</td>
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<th>Enrichment of the current data exchange up to complete consignment note information</th>
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<tr>
<td><strong>Step 2</strong></td>
</tr>
<tr>
<td>• Possibility to exchange complete consignment note information via CTD</td>
</tr>
<tr>
<td>• Electronic Consignment Note ECN message format</td>
</tr>
<tr>
<td>• Only dossier creating carrier is allowed to communicate updates of the transport information.</td>
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<tr>
<td>• Not possible to determine carrier who is in the custody of the goods</td>
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<th>Addition of hand-over procedure and sending of updates during the transport</th>
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<td><strong>Step 3</strong></td>
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<tr>
<td>• Possibility to exchange complete consignment note information via CTD</td>
</tr>
<tr>
<td>• Electronic Consignment Note ECN message format</td>
</tr>
<tr>
<td>• The carrier who is in the custody of the goods is allowed to apply updates to the transport information.</td>
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<tr>
<td>• Possible to identify currently responsible carrier</td>
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<th>Introduction of legally binding hand-over procedure and discontinuation of the Paper consignment note</th>
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<td><strong>Step 4</strong></td>
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<tr>
<td>• Exchange of complete consignment note information via ECN</td>
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<tr>
<td>• ECN message format</td>
</tr>
<tr>
<td>• Change management like step 3</td>
</tr>
<tr>
<td>• Legal binding hand-over procedure (location, traffic flow, train….)</td>
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Current limitations

Rail conventional transports as well as combined traffic are able to run paperless with e-Rail Freight.

Special rules have to be applied for:

- Shipments running with carriers and RUs not using e-Rail Freight: mixed system paper and electronic consignment have to be used.

- Dangerous goods in some countries as an obligation of paper document on the locomotive still remains.

- Exceptional consignments (out of gauge) regarding some specific legislation
E-Rail Freight – Signatories of Declaration of Interest
Case DBSR – Fret SNCF

All traffic are included
The process ECN is used for conventional traffic without exceptions

2010
September | October | November | December | 2011 | January | February

Test (unity) | Test (Work flow) | test (complete) | Redundant process since 7.02.2011

At the beginning of June 2011, the paperless exchange should be in force between SNCF and DBS
Case DBSR - RCA

Rail Cargo Austria
<> DB Schenker Rail Deutschland

Print out of ECN by DB Schenker

CIM Note Part 1

Sendezzeitpunkt im Status „Aktiv“ („Freigegeben“)
The Combined Traffic business model requires changes to the customer sub-set

- Initiates service
- Procures full train capacity and rail traction service
- Bears economic risk

Shipper

Forwarder
Truck comp.
Shipping line

Procures train slots by load unit

CT Wagon

Intermodal operator

Procures slot time

Terminal operator

Procures slot time & track access

Railway

Network manager

Sells door-to-door logistics
Combined Traffic- Testing with pilots still in 2011

Second half 2011

- KÖLN – VERONA (with DB Schenker, RCA and TRENITALIA)

End 2011

- KÖLN – GALLARATE (with DB Schenker and SBB International)
The way forward - Customs

Customs issues

- The introduction of NCTS in June 2013 will be the end of the simplified and paper-based transit procedure for rail.

- The provision of the correct MRN (Movement Reference Number) for import, export and transit procedures appears to emerge as an obligation for rail (DG TAXUD to define).

- Special case of intra EU transports via CH: proposal to be prepared offering different technical and procedural options.
The way forward – CIS and Asia

**CIM-SMGS Note for rail transports to Asia**

- Harmonisation of CIM (CIT) and SMGS (OSJD) railway laws
- The e-Rail Freight technical specifications to be finished. A common standard EDIFACT messages already agreed between UIC and OSJD
Thank you for your attention!

Visit also www.RailFreightPortal.com – central information hub of rail freight!