UNECE

Capacity building workshop on

Strengthening Regional Rail Transport Connectivity

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Zappeion Megaron, Athens, Greece

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1. Introduction and current situation
2. Identified gaps and recommendations
3. Investment and maintenance needs
4. Connectivity reform measures
5. How Transport Community could help
1. Introduction and current situation

Rail Network passengers traffic (2008-2016) - WB and EU neighbours

- The Comprehensive Rail Network passengers traffic (2008-2016)
- Bulgaria
- Croatia
- Hungary
- Slovenia

Passenger traffic trends in last 10 years
1. Introduction and current situation

Rail Network freight traffic (2008-2016)-WB and EU neighbours

- The Comprehensive Rail Network freight traffic (2008-2016)
- Bulgaria
- Croatia
- Hungary
- Slovenia
1. Introduction and current situation

➢ Condition

Lengths of sections in “very poor”, “poor” and “medium” condition on the entire TEN-T C&CNWB (in kilometres)

<table>
<thead>
<tr>
<th>Condition</th>
<th>&quot;Very poor&quot;</th>
<th>&quot;Poor&quot;</th>
<th>&quot;Medium&quot;</th>
<th>TOTAL</th>
<th>% of network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rails</td>
<td>914</td>
<td>841</td>
<td>375</td>
<td>2,130</td>
<td>56%</td>
</tr>
<tr>
<td>Sleepers &amp; Fastenings</td>
<td>1,112</td>
<td>138</td>
<td>130</td>
<td>1,380</td>
<td>36%</td>
</tr>
<tr>
<td>Ballast</td>
<td>1,793</td>
<td>168</td>
<td>75</td>
<td>2,035</td>
<td>53%</td>
</tr>
</tbody>
</table>
2. Identified gaps and recommendations

Alignment of the legislation with the EU acquis

- Transposition of the recast of the 1st railway package and 4th railway package as well as establishment of single railway area should be given very high priority
- Transposition (on good track) and implementation (slow) of the EU rail acquis
- Restructuring is ongoing in all national rail companies
- Rail market opening (current situation)
2. Identified gaps and recommendations

• Operational aspects

  • Financing gap

    • Investment gap for financing is 4.65 billion euros.
    • Preparatory projects - 3.5 billion and mature projects – 1,15 billion euros.
    • Insufficient maintenance

  • Operational constrains

    • Long duration of project preparation
    • Efficiency of using EU funds (IPA, WBIF, CEF)
    • Efficiency of using loans
    • Competitiveness
2. Identified gaps and recommendations

- **Bottlenecks**
  - Maintenance
    - REBIS - annual cost - €60 + €580 million.
    - Connecta study - above 30% sections in poor condition
  - Alignment with TEN-T standards
    - Electrification, 78% of the OEM Corridor and 74% of the MED Corridor are compliant.
    - Axle load (22.5 t), 87% OEM Corridor and 77% MED Corridor.
    - 45% of the OEM Corridor and 12% of the MED Corridor are compliant in terms of maximum operating speed.
  - These results clearly indicate that a large percentage of the problems that the railway network in the region faces, are due to lack of proper maintenance.
2. Identified gaps and recommendations

• Bottlenecks
  
  • Lack of coordination between the operators or infrastructure managers
    • Long term strategies, business plans and network statements.
    • Maintenance plans.

• Interoperability issues
  
  • Region needs to implement EU standards.
  • Infrastructure planning and construction.
  • Deployment of new systems (e.g. ERTMS).
  • BC and IT systems
  • Mutual recognition of driver licences.
Comprehensive: 3.857 km
Core: 2.602 km
Comprehensive: 5.463 km
Core: 3.522 km
3. Investment needs

SEETO MAP 2018

• The estimated investment required for the implementation of these 65 priority projects is approximately €13.9 billion.

• Rail projects are represented in the priority project list with 18 out of 65 nominated priority projects.

• Investment needs in railways amount to €4.6 billion.

<table>
<thead>
<tr>
<th>Comprehensive/Core</th>
<th>Length (km)</th>
<th>Length of sections under planned projects</th>
<th>Percentage of network covered by priority projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive network</td>
<td>3857</td>
<td>1.241</td>
<td>32%</td>
</tr>
<tr>
<td>Core network</td>
<td>2602</td>
<td>1.044</td>
<td>40%</td>
</tr>
</tbody>
</table>
## 3. Investment needs

### Mature projects - SEETO MAP 2018

<table>
<thead>
<tr>
<th>Corridor/Route/Node</th>
<th>Regional Participant</th>
<th>Project name</th>
<th>SEETO Network</th>
<th>Length (km)</th>
<th>Total cost (M€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railway projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corridor Vc</td>
<td>BIH</td>
<td>Overhaul of the railway section Sarajevo-Podlugovi</td>
<td>Core</td>
<td>24</td>
<td>22,5</td>
</tr>
<tr>
<td>Corridor VIII</td>
<td>FYROM</td>
<td>Construction of the railway section Beljakovce-Kriva Palanka- Border with Bulgaria</td>
<td>Core</td>
<td>57,4</td>
<td>470</td>
</tr>
<tr>
<td>Corridor X</td>
<td>SER</td>
<td>Reconstruction and modernization of the existing railway track and construction of a second track on the line Beograd – Nis, section Stalac – Djunis</td>
<td>Core</td>
<td>17,74</td>
<td>157</td>
</tr>
<tr>
<td></td>
<td>SER</td>
<td>Construction of the by-pass railway line Beli Potok – Vinca – Pancevo with road-railway bridge over the Danube River near Vinca and highway By-pass of Belgrade section C</td>
<td>Core</td>
<td>31</td>
<td>430</td>
</tr>
<tr>
<td><strong>Total cost mature (M€)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1155</td>
</tr>
<tr>
<td><strong>Total length mature (km)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>162</td>
</tr>
</tbody>
</table>
### 3. Investment needs

#### Preparatory projects - SEETO MAP 2018

<table>
<thead>
<tr>
<th>Corridor / Route / Node</th>
<th>Regional Participant</th>
<th>Project name</th>
<th>SEETO Network</th>
<th>Length (km)</th>
<th>Total cost (M€)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Railway projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corridor VIII</td>
<td>ALB</td>
<td>Development of the Corridor VIII - section Durres - Rrogozhine - Pogradec / MKD border</td>
<td>partly Core/Comprehensive</td>
<td>137</td>
<td>206</td>
</tr>
<tr>
<td>Corridor VIII</td>
<td>ALB</td>
<td>Construction of the new railway Pogradec-Korça – border to Greece</td>
<td>Comprehensive</td>
<td>90</td>
<td>150</td>
</tr>
<tr>
<td>Corridor VIII</td>
<td>ALB</td>
<td>The construction of railway line from Tirana Public Transport Terminal (PTT) to a new railway station in Tirana</td>
<td>Core</td>
<td>n/a</td>
<td>6</td>
</tr>
<tr>
<td>Corridor X</td>
<td>SER</td>
<td>Reconstruction and modernization of sections on the railway line Nis - Preševo (section Brestovac - Vinarci, Djordjevo - Vranjska Banja, Ristovac - Bujanovac, Bukarevac – Presevo)</td>
<td>Core</td>
<td>88.14</td>
<td>160</td>
</tr>
<tr>
<td>Corridor X</td>
<td>SER</td>
<td>Modernization for the contemporary double-track traffic of the single - track section of the railway line Ruma-Kljenje-Hani Hotit - Podarevac – Velika Planina</td>
<td>Core</td>
<td>84</td>
<td>368</td>
</tr>
<tr>
<td>Corridor X</td>
<td>SER</td>
<td>Modernization of section Velika Planina- Nis (without sections Gilje -Paracin and Stalac - Djunis)</td>
<td>Core</td>
<td>111</td>
<td>276</td>
</tr>
<tr>
<td>Corridor Xb</td>
<td>SER</td>
<td>Construction and modernization of railway bypass around Nis</td>
<td>Core</td>
<td>22.4</td>
<td>90.7</td>
</tr>
<tr>
<td>Corridor Xc</td>
<td>SER</td>
<td>Reconstruction and Modernization of the railway line Belgrade - Novi Sad - Subotica - border with Hungary (Kneža)</td>
<td>Core</td>
<td>142</td>
<td>1.740</td>
</tr>
<tr>
<td>Route 2</td>
<td>ALB</td>
<td>Improvement of the railway link Durres - Vora-Shekodra-Hani Hotit</td>
<td>Core</td>
<td>140</td>
<td>165</td>
</tr>
<tr>
<td>Route 2</td>
<td>MNE</td>
<td>Reconstruction and modernization of railway section Podgorica - Tuzi</td>
<td>Core</td>
<td>24.7</td>
<td>35</td>
</tr>
<tr>
<td>Route 4</td>
<td>MNE</td>
<td>Rail Route 4 (Bar-Vrbnica) - Reconstruction of railway line (sections: Trebješica - Lutovo - Bratonožići - Bioče - Podgorica)</td>
<td>Core</td>
<td>46.3</td>
<td>36</td>
</tr>
<tr>
<td>Route 9a</td>
<td>SER</td>
<td>Reconstruction and modernization of the railway line Ruma-Šabac-Donja Borina - State Border with BiH</td>
<td>Comprehensive</td>
<td>107</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total cost preparatory (M€)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.525</td>
</tr>
<tr>
<td><strong>Total length preparatory (km)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.079</td>
</tr>
</tbody>
</table>
3. Maintenance needs

- The result from Connecta study shows, that without any prioritisation, the total volume of superstructure RIA renewal works (of any kind) that should be performed within the target period 2019-2023 amounts to 3468.76 km (out of 3857), for which the data were obtained from WB6 RPs, 2,499 km of rails, 2389 km of sleepers, 2457 km of fasteners and 2732 km of ballast have either exceeded their service lives (RSL <= 0) or are having less than 20% RSL (Residual Service Lives).

- Project aimed at sections in poor and very poor condition, hence sections with RSL <= 0 and 0 < RSL <= 20%, i.e. effectively RSL <= 20% were selected.

- Therefore, only RIA with RSL <= 20% represent “candidates for replacement” in the period 2019-2023.
3. Maintenance needs

- Volume of M&R (Maintenance & Renewal) is extremely large and therefore, a strategy had to be devised as to how to prioritise

- For the purposes of establishing M&R plans for the 5-year period 2019-2023 analysis was undertaken under 3 distinct scenarios:
  
  A. “Ideal/Maximum”,
  B. Medium” (roughly 50% of the “Ideal”) and
  C. “Minimum” (roughly about 20% of the “Ideal”).

- Budget
  
  • Rail Infrastructure M&R Budget for “Ideal/Maximum” scenario – €2.914 billion
  • Rail Infrastructure M&R Budget for “Medium” scenario – €1.224 billion
  • Rail Infrastructure M&R Budget for “Minimum” scenario €566 million
4. Connectivity reform measures

• Vienna Summit measures
  • Rail market opening on the pilot basis on the Orient/East Med Corridor
  • Establishment of functioning maintenance system ensuring no section in poor/very poor condition by 2020
  • Cooperation frameworks such as RFC
  • Border crossings

• Intermodal issues
### 4. Vienna Summit Soft Measures Management Plan

#### Medium-term Regional Actions (2020 Goals)

<table>
<thead>
<tr>
<th>1. Opening of the transport market</th>
</tr>
</thead>
</table>
| 1.1 Implementation of rail reform strategy | • Rail market opening on the pilot basis on the Orient/East Med corridor  
• Definition of a framework for implementation of EU Freight corridors extended to the Western Balkans |

<table>
<thead>
<tr>
<th>2. Establishment of competitive, reliable and safe transport system</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Improvement of road safety</td>
</tr>
<tr>
<td>2.2 Trade and Transport Facilitation</td>
</tr>
</tbody>
</table>
| 2.3 Intelligent Transport System (ITS) deployment on the Core Network | • Development and implementation of System of Exchange Excise Data (SEED) Plus to support the CEFTA Framework Agreement on exchange of data and simplification of inspections  
• Signature of a legally binding document-protocol on an exchange of transport data in cooperation with CEFTA |
| 2.4 Establishment of functioning maintenance system ensuring no section in poor/very poor condition | • Definition of strategic framework for implementation of ITS on the Core Network |

<table>
<thead>
<tr>
<th>3. Increasing effectiveness of Border Crossing Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Effective Border Crossing Agreements</td>
</tr>
</tbody>
</table>
| 3.2 Implementation of Integrated Border Management (IBM) strategy | • Implementation of the BCA between Serbia and the former Yugoslav Republic of Macedonia  
• Conclusion of negotiations between Bosnia and Herzegovina and Croatia for all BCPs  
• Implementation of BCA between Montenegro and Albania as a part of Adriatic-Ionian highway project  
• Implementation of IBM at Common Crossing Points (CCPs) between Serbia and Kosovo  
• Provide one parking lane on each side of the CCP of Merdare |
4. Connectivity Measures Progress

➢ Railway market open for domestic carries
  ✓ In Albania, Kosovo, Montenegro, Serbia
  ✓ 5 private Rus in Serbia, 1 in Albania and 1 in Kosovo*

➢ Road safety inspections, ITS deployment, Road/rail maintenance and road border crossing facilitation
  ✓ Connecta started in January 2017
  ✓ Final reports in October 2018

➢ National Connectivity Reform Measures
  ✓ Joint operation in Tuzi started between Albania and Montenegro

* This designation is without prejudice to positions on status and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence
Rail market opening on the pilot basis on the Orient/East Med Corridor

- SA. 1 Legislative changes to allow market opening to domestic carriers
- SA. 2 Regular consultation platforms with forwarders and shippers established
- SA. 3 Mutual recognition of train driver license
- SA. 4: Review of national technical rules and safety rules for elimination or later reporting to ERA
- SA. 5 Network statement for the main infrastructure manager published
- SA. 6 Networks statements for rail freight terminals, including in sea ports and river ports published
Establishment of functioning maintenance system

• SA 3 - Change budgetary planning practice to introduce 5 year contracts
• SA 4 – Introduce asset management system
• SA 5- Rail Maintenance Plan for Core/Comprehensive Network for period from 2018, ensuring no section in poor/very poor condition by 2020
• SA 6- Coordination between the regional IM (neighboring IMs between themselves), consultation with interested parties before preparation of maintenance plans and the schedule for works and publication in the network statement
Rail Freight Corridors

- Coordination of planned temporary capacity restrictions
  - Coordination on traffic management
  - Coordination on works and possessions
    - Timeline for coordination
    - Management of conflicts between TCRs
- Capacity Allocation
- Quality Evaluation-Performance monitoring
BC agreements and joint stations establishment

- Implementation of the rail border crossing agreement between Serbia and the former Yugoslav Republic of Macedonia

- Conclusion of negotiations between Bosnia and Herzegovina and Croatia for all border-crossing points (BCPs)

- Implementation of the border crossing agreement between Montenegro and Albania as a part of Adriatic – Ionian Initiative project

- Revisiting the rail border crossing agreement between Serbia and Bulgaria

- Implementation of the border crossing agreement between Kosovo* and the former Yugoslav Republic of Macedonia

- Conclusion of negotiations and signing of rail border crossing agreement between the former Yugoslav Republic of Macedonia and Greece for border-crossing point (BCPs) on Corridor X

* This designation is without prejudice to positions on status and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence
Intermodal issues

• The favourable transit position of the region and existing SEETO Network offer great potential for the development of intermodal transport, both internally among the countries and internationally
• However, intermodality in the region is underdeveloped
• The main problems that the development of the intermodal transport in SEE region is facing refer to the following issues:

  ➢ **Institutional issues** - weak institutions, inadequate organization, non-existence of relevant associations, limited strategic foresight.
  ➢ **Planning process** - insufficient support to the comprehensive and wide-ranging planning process in the logistic transport chains.
  ➢ **Operational issues**, which comprises weak coordination and cooperation among stakeholders in the transport chain, as well as a lack of policy initiatives by governments for intermodal transport organization.
  ➢ **Lack of infrastructure facilities** - inadequate and weakly developed suitable infrastructure or superstructure, old mechanization and equipment.
  ➢ **Economic constrains** – lack of the concentration of considerable transport volumes at a reduced number of terminals to enhance intermodality in the region.
  ➢ **Tariff policy issues**, which do not stimulate the use of intermodal transport.
  ➢ **Awareness issues** - underdeveloped awareness of the benefits which an intermodal transport system provides and inadequate marketing of the benefits.
5. How Transport Community could help

- Accelerating the process of EU acquis transposition
- Through TCT structures facilitated process of implementation of legislation and project preparation
- Through TCT structures enhanced possibilities for national capacity building and knowledge sharing, which should decrease needed time for project duration and preparation
- Creation of single Western Balkans railway area which would bring to higher railway competitiveness
- Rail freight Corridors
- Through Connectivity agenda, WBIF and Core Corridor mechanisms more streamlined investments in the railway sector
Conclusions

- Regional cooperation in all levels (G2G, B2B, etc)
- Common rail strategy
- Permanent consultation with neighbours (strategies, action plans, business plans)
- Market opening on regional level
- Corridor approach
- Support needed from EC (investment, TA)
Thank you for your attention!