THE OEM CORRIDOR STUDY: OVERVIEW & BARRIERS TO CORRIDOR IMPLEMENTATION

SYSTEMA Transport Planning & Engineering
Background

Organize efficiently future development of Core Network towards its 2030 key completion milestone.

- 9 Corridor Studies & Work Plan by European Coordinator.
- "Orient/East-Med" (OEM) Study 1st Phase: awarded by DG MOVE to consortium led by iC consulenten: Jan-Dec 2014
  - Corridor Work Plan I presented by European Coordinator Mr Mathieu Grosch, and unanimously approved by all MS in May 2015.
  - Critical issues/bottlenecks and recommendations.
  - List of 280 on-going and planned projects (infrastructure works and studies) of total cost 47.4bn €.
## OEM Corridor Study Team

<table>
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<tr>
<th>Name</th>
<th>Country</th>
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<tr>
<td>iC consultanten Ziviltechniker GesmbH</td>
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<td>PricewaterhouseCoopers Advisory SpA</td>
<td>Italy</td>
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OEM Corridor
2\textsuperscript{nd} Phase Corridor Study (2015 – 2016)

*Progress achieved so far*

- Definition of **Key Performance Indicators (KPI)** to assess Corridor evolution and projects.

- **NEW PROJECT LIST**
  - Updating, adding/deleting projects
  - More detailed information per project (feasibility and maturity for implementation)
  - Evaluation (contribution to KPI improvement, bottleneck elimination, capacity improvements, last mile, etc.)

- **Corridor mapping** (Which projects ready by 2030? Which missing to complete the Corridor?).

- Preliminary Report on the **Wider Elements of the Work Plan**
Wider Elements of the Work Plan

Focus: Proposed priorities/measures for implementation of OEM

- Plan for removal of physical and technical barriers
  - Required projects for compliance until 2030
  - Identification of pertaining critical issues
- Potential administrative and operational barriers
- Urban node analysis

Overview of OEM projects 2016 – 2030+

Total cost for 321 projects: 57.2 bln €

- 358 Projects currently in the updated list
- 22 Projects will be completed by 2020
- 153 Projects are only part of the OEM corridor
- 116 On-going
- 192 Projects will be completed by 2020
- 61 Projects already completed
- 47 Projects already completed
- 45 Projects will be completed by 2020
- 14 On-going
- 17 On-going
- 15 On-going

Study on the Orient / East-Med Core Network Corridor, DG MOVE, European Commission; Contractor: iC consulten / ITC / Panteia / Railistics / SYSTEMA / PwC
Projects submitted by Greece

- Rail/Rail ERTMS: 26
- Maritime: 15
- Road: 4
- Airport: 1
- Innovation: 4
Critical Rail Issues:

- ERTMS, Train length
- Axle load issue in Romania
- Line speed issue in Bulgaria
- Hinterland rail connections of seaports in Greece (Igoumenitsa!)
- Interoperability issues along the long section Békéscsaba – Thessaloniki (HU-RO-BG-EL)
### Key Barriers to OEM Corridor implementation by 2030

#### Rail: Imminent non-compliance 2030

<table>
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<tr>
<th>MS</th>
<th>Sections</th>
<th>Non-compliance 2030</th>
</tr>
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</table>
| EL | Tris Gefyres - SKA | Line speed <100 km/h  
Axle Load <22.5 t |
| EL | Pireas-Tris Gefyres | Line speed <100 km/h |
| EL | Pireas - Tris Gefyres – SKA | Train Length <740m |
| EL | Kiato - Korinthos – Thriassio – SKA | Train Length <740m |
| EL | Thessaloniki Old Freight Station | <740m train terminal accessibility. |
| EL | Patra Rail Road Terminal (RRT) | - |
Rail operational/administrative barriers

- Set-up of **Working Group on Cross Border Issues** (1st meeting – March 2016, Hungary)
- **Joint Ministerial Declaration** on *effective improvements eliminating the bottlenecks and facilitating international traffic on the Orient/East-Med Rail Freight Corridor* signed among Ministers of Austria, Bulgaria, Czech Republic, Germany, Greece, Hungary, Romania and Slovakia in TEN-T days (June 2016, Rotterdam).
  - **Target:** maximum 2 hours waiting time, except for waiting times due to border procedures specific to Schengen external borders, as soon as possible and **at the latest by 30 June 2018.**
### Key Barriers/Actions for implementation of OEM Corridor

#### Seaports

<table>
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<tr>
<th>Seaports with a need for action</th>
<th>Required interventions</th>
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<tbody>
<tr>
<td>Port of Igoumenitsa</td>
<td>Rail connection before 2030</td>
</tr>
<tr>
<td><strong>All</strong></td>
<td>Availability of clean fuels</td>
</tr>
<tr>
<td>Ports of Pireas/Heraklion</td>
<td>Motorways of the Sea standards (MoS link-Lemesos, CY)</td>
</tr>
<tr>
<td><strong>All</strong></td>
<td>Implementation of a National Single Window in accordance with Directive 2010/65/EU</td>
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<tr>
<td>Port of Thessaloniki</td>
<td>VTMIS deployment</td>
</tr>
<tr>
<td>Ports of Igoumenitsa and Patra</td>
<td>Repair VTMIS system to resume operation</td>
</tr>
<tr>
<td>Ports of Pireas, Patra and Igoumenitsa</td>
<td>Build on developed pilot applications and finalise a functional PCS deployment</td>
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Recommendations

- Projects address identified bottlenecks; BUT *several with unknown timelines and non-secured financing*.

- **Focus on projects until 2030:**
  - Cross border link between Kulata (BG)-Promahonas (EL)-Thessaloniki
  - Acceleration of ERTMS implementation
  - Rail connections of Ports of Igoumenitsa and Patra
  - Alternative fuels facilities at seaports and use of new technologies
  - Road sector: sufficient parking areas, interoperability of electronic toll collections systems

- Greece to be positively active in Working Group for Action Plan on Cross-Border Issues.
Indicative projects

- Upgrading of the existing single line Thessaloniki - Promahonas
- Completion of remaining studies and elaboration of tender documents for the construction of the line Kalambaka- Ioannina – Igoumenitsa – Phase C
- Construction of new single railway line Kalambaka- Ioannina – Igoumenitsa
- Upgrading of infrastructure and superstructure along SKA - Inoi section
- Studies, infrastructure upgrading, electrification, telecommanting signalling on section Patra (Bozaitika area) - Patra (New Port)
- Works on Pireas-Athina RS section
- Rail connection to the freight Port of Thessaloniki (6th pier)
- Installation of electrification and ETCS level 1 in Paleofarsalos-Kalambaka section
- Port of Heraklion: Expansion / Construction of new port facilities
Next Steps

- Corridor Study on-going until December 2017.
  - Monitoring compliance check/updating project list (e.g. CEF 2015).
  - Project clustering.
  - New elements (environmental impact, climate change, innovation deployment)

2nd update in 2018: Full Corridor Work Plan in accordance with Article 47.1 (TEN-T Regulation)

- Upcoming Meetings:
  - 9th OEM Corridor Forum -December 8th, 2016.
  - OEM Seaports Working Group Meeting: -December 8th , 2016, (exchange of best practices on use of new technologies and “green ports” actions).
For more information pls contact

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