PANTOTRAIN

Project ID: 234015
Funded under: FP7-TRANSPORT

PANTOgraph and catenary interaction Total Regulatory Acceptance for the Interoperable Network

From 2009-06-01 to 2012-05-31, closed project

Project details

<table>
<thead>
<tr>
<th>Total cost:</th>
<th>Topic(s):</th>
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</thead>
<tbody>
<tr>
<td>EUR 3 534 166,60</td>
<td>SST.2008.2.5.1 - Interoperable rolling stock</td>
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</tbody>
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<tr>
<th>EU contribution:</th>
<th>Call for proposal:</th>
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<tbody>
<tr>
<td>EUR 2 166 370</td>
<td>FP7-SST-2008-RTD-1</td>
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<tr>
<td></td>
<td>See other projects for this call</td>
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<tr>
<th>Coordinated in:</th>
<th>Funding scheme:</th>
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<tr>
<td>Belgium</td>
<td>CP-FP - Small or medium-scale focused research project</td>
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Objective

The current interoperability approval process for new High Speed and Conventional railway vehicles in Europe is a very long and costly process. The Technical Specifications for Interoperability provide common regulations for the homologation of new rolling stock but do not directly eliminate the current burdens regarding new vehicle approval on each network. In this context, the pantograph/catenary system represents one of the major barriers to rolling stock interoperability. Indeed, each country has developed its own overhead line equipment leading to different catenary designs with variations in mechanical properties. A unified approval method is a key subject that must be addressed to provide a competitive railway system. Hence, PANTOTRAIN proposes to transfer the pantograph/catenary certification from current line testing towards laboratory testing and simulation. This will improve pantograph interoperability, increase train performances on the existing infrastructure and achieve considerable costs and time savings for the homologation of new pantographs. The project is part of the TRIO-TRAIN cluster (Total Regulatory Acceptance for the Interoperable Network) which comprises 3 related projects dealing with key railway interoperability issues: Aerodynamics (AEROTRAIN), Railway Dynamics and Track Interaction (DYNOTRAIN) and Pantograph/Catenary Interaction (PANTOTRAIN) all submitted under the 2nd Call of the FP7. The objective of these projects is to propose an innovative methodology via a computer simulation/virtual homologation that will allow multi-system network and route approval in Europe to become a faster, cheaper and better process for all involved stakeholders. Therefore the success of the TRIOTRAIN cluster will lead to a time reduction for relevant parts of the certification process from 24 to 6 months; an 80% saving in effort for the acceptance of a new vehicle already accepted in an other country and an estimated financial saving of €20-50 Million/year

Related information

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<th>Result In Brief</th>
<th>High speed trains with transnational compatibility</th>
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<td>Report Summaries</td>
<td>Final Report Summary - PANTOTRAIN (Pantograph and catenary interaction total regulatory acceptance for the interoperable network)</td>
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</table>
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Subjects

Transport

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