PROJECT

PINTA

IP1 Traction TD1 and Brakes TD5 – Phase 1

Funding: European (Horizon 2020)

Duration: Sep 2016 - Dec 2018

Status: Complete

Total project cost: €12,823,244

EU contribution: €12,823,244

Call for proposal: H2020-S2RJU-CFM-2016-01-1

CORDIS RCN : 205482

Objectives:

The PINTA Project (IP1 Traction TD1 and Brakes TD5 – Phase 1) will address the two key topics highlighted in the first Shift2Rail Call topic S2R-CFM-IP1-01-2016 – Development of concepts towards the next generation of traction systems and management of wheel/rail adhesion, namely Traction and Adhesion Management.

Traction subproject will focus on the improvement of seven technical and economical performances of the Traction system that have been agreed and defined in Roll2Rail. These performances have to be improved on five different train applications having different constraints, needs and specificities, from tramway to HST, including metro, sub-urban, regional trains. In particular, traction sub-project will address the following:

1. Line capacity increase through weight, volume and noise savings of Traction equipment
2. Operational reliability increase via higher reliability/availability
3. Railway system LCC reduction

As far as Adhesion management is concerned, the work will lead to the achievement of a number of important objectives linked to Brakes, such as:

- Improvement of braking degradation limit in poor adhesion condition
- Management of all adhesion conditions in a way that brake distances are optimized
- Improvement of the overall train safety, which relies substantially on the management of the wheel/rail contact
- Reduction of wheel Life-Cycle-Costs (LCCs) through optimized wheel/rail contact in braking

The activities should contribute in formulating new performance specifications for Adhesion Recovery Systems. Moreover, improved requirements for Wheel Slide Protection test procedures should be developed, followed by new specifications for Automatic Test benches.

Parent Programmes:

H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport
Shift2Rail - Shift2Rail

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Partners:

BOMBARDIER TRANSPORTATION SWEDEN AB - Sweden

CAF POWER & AUTOMATION SL - Spain

DEUTSCHE BAHN AG - Germany

FAIVELEY TRANSPORT ITALIA SPA - Italy

KNORR-BREMSE SYSTEME FUR SCHIENENFAHRZEUGE GMBH*KB - Germany

Siemens - Germany

SNCF MOBILITES - France

PATENTES TALGO SL - Spain

Organisation: ALSTOM TRANSPORT SA
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Organisation Website: ALSTOM TRANSPORT SA

Technologies:

Safety systems
Autonomous system for train detection

Development phase: Research/Invention

STRIA Roadmaps: Vehicle design and manufacturing, Infrastructure
Transport mode: Rail transport
Transport sectors: Passenger transport, Freight transport
Transport policies: Other specified
Geo-spatial type: Other