

PROJECT

INNOWAG

INNOvative monitoring and predictive maintenance solutions on lightweight WAGon

Funding: European (Horizon 2020)

Duration: Nov 2016 - Jun 2019

Status: Complete

Total project cost: €1,500,563

EU contribution: €1,500,563



Call for proposal: H2020-S2RJU-OC-2015-01-2

[CORDIS RCN : 206229](#)

Objectives:

This proposal responds to the first Open Calls issued by the Shift2Rail Joint Undertaking, as part of Shift2Rail Horizon 2020 programme. It specifically addresses the topic S2R-OC-IP5-03-2015: Intelligent freight wagon with predictive maintenance. This topic is complementary with topic S2R-CFM-IP5-02-2015: Start-up activities for Freight Automation.

The INNOWAG project will work towards increasing rail freight competitiveness and the development of the next generation of lightweight and intelligent freight wagons by addressing specific challenges in the three essential areas, identified by the call, through three subsequent work streams, namely:

1. Work Stream 1 (WS1): Cargo condition monitoring
2. Work Stream 2 (WS2): Wagon design
3. Work Stream 3 (WS3): Predictive maintenance

Moreover, INNOWAG will consider the compatibility between the solutions proposed and researched in the three areas, as well as their integration into a novel concept of wagon.

The aim of the proposed INNOWAG project is to develop intelligent cargo monitoring and predictive maintenance solutions integrated on a novel concept of lightweight wagon, which would respond to major challenges in rail freight competitiveness, in relation to the increase of trans.

The INNOWAG project will determine how to effectively integrate innovative technologies for cargo condition monitoring into a novel high performance lightweight freight wagon, supported by effective health monitoring technologies, and predictive maintenance models for sustainable and attractive European rail freight. The development of novel technology concepts and predictive maintenance models and procedures will be separately addresses by the INNOWAG work streams.

The concept underpinning the INNOWAG project relies on the actual needs of rail freight for increasing its competitiveness and attractiveness. The INNOWAG project therefore aims at developing a rail freight service that fits the needs of modern manufacturing and supply chain.

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:

Inertia Technology B.V. - Netherlands

HAVELLANDISCHE EISENBAHN AKTIENGESELLSCHAFT - Germany

LUCCHINI RS SPA - Italy

NEWOPERA Aisbl - Belgium

PERPETUUM LIMITED - United Kingdom

POLITECNICO DI MILANO - Italy

TECHNISCHE UNIVERSITAT BERLIN - Germany

UNION DES INDUSTRIES FERROVIAIRES EUROPEENNES - UNIFE - Belgium

UZINA DE VAGOANE AIUD SA - Romania

VYZKUMNY USTAV ZELEZNICNI, AS - Czech Republic

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Technologies:

Rail vehicle design
More efficient rail wagons

Development phase: Research/Invention

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Rail transport

Transport sectors: Freight transport

Transport policies: Other specified

Geo-spatial type: Other