

PROJECT

## HERMES

### Development of Smart and Flexible Freight Wagons and Facilities for Improved Transport of Granular Multimaterials

**Funding:** European (Horizon 2020)

**Duration:** May 2015 - Apr 2018

**Status:** Complete

**Total project cost:** €6,707,335

**EU contribution:** €6,705,209



**Call for proposal:** H2020-MG-2014\_TwoStages

[CORDIS RCN : 193406](#)

#### Objectives:

Rail freight transportation is a system service where a multitude of players, participants and systems providers bear a high degree of responsibility for its attractiveness and performance. It shows high efficiency as transportation means, in terms of land use and energy consumption and low greenhouse gas emissions. However rail's market share of freight transportation and its economic efficiency continues to be limited. Aimed at overcoming such uncertainty, this project addresses one of the most important key resources for further developing rail freight transportation: the optimization of the performance of the rail freight wagon. The continuous pressure on environmental issues and energy efficient transport is forcing the rail transportation sector to enhance the rail logistics services and to incorporate innovative solutions to improve load capacity to keep the "best-in-class" position and, therefore, acquiring a much privileged position beyond alternative terrestrial transport sources, such as truck transportation. Thus, aimed at optimizing rail freight transportation, the main objective of this project is to holistically address the aspects that may improve freight wagon performance: enhanced logistics, improved multimodal operative, higher load capacity, optimized filling/emptying time and flexibility to transport multi-products.

This project aims to achieve such optimization by combining industrial expertise on the freight wagon design and construction, advanced materials for lightweight construction and logistics with the research capabilities to incorporate innovation solutions and optimize material performance.

#### Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

#### Lead Organisation:

**Iberpotash Sa**

**Address:**

CALLE AFORES S N  
08260 SURIA  
Spain

**EU Contribution:** €727,050

#### Partner Organisations:

**Lulea Tekniska Universitet****Address:**

Universitetsområdet Porson  
971 87 Lulea  
Sweden

**Organisation Website:**

<http://www.luth.se>

**EU Contribution:** €571,561

**Fundacio Ctm Centre Tecnologic****Address:**

PLACA DE LA CIENCIA 2  
08243 MANRESA BARCELONA  
Spain

**Organisation Website:**

<http://www.ctm.com.es>

**EU Contribution:** €502,350

**Hempel A/s****Address:**

Lundtoftevej 150  
2800 Kgs. Lyngby  
Denmark

**Organisation Website:**

<http://www.hempel.com>

**EU Contribution:** €315,091

**Idp Ingenieria Y Arquitectura Iberia SI****Address:**

AVENIDA FRANCESC MACIA 60 3 PLANTA  
08208 SABADELL BARCELONA  
Spain

**Organisation Website:**

<http://www.idp.es>

**EU Contribution:** €895,005

**Ssab Emea Ab****Address:**

.  
781 84 Borlaenge  
Sweden

**EU Contribution:** €186,500

**Association Pour La Recherche Et Le Développement Des Méthodes Et Processus Industriels****Address:**

Boulevard Saint Michel 60  
75272 Paris  
France

**Organisation Website:**

<http://www.armines.net>

**EU Contribution:** €388,875

**Ferrocarrils De La Generalitat De Catalunya****Address:**

Els Vergós, 44  
8028 Barcelona  
Spain

**EU Contribution:** €518,325

**Kiruna Wagon Ab****Address:**

TRUCKVERKSTAN  
981 38 KIRUNA  
Sweden

**EU Contribution:** €2,600,452

**Technologies:**

Rail vehicle design  
Improved rail wagons for transport of granular multimaterials

**Development phase:** Research/Invention

**STRIA Roadmaps:** Vehicle design and manufacturing

**Transport mode:** Rail transport

**Transport sectors:** Freight transport

**Transport policies:** Digitalisation, Decarbonisation

**Geo-spatial type:** Other