

PROJECT

NET4TRAIN

Revamping trains with the most advanced broadband communication system

Funding: European (Horizon 2020)

Duration: Dec 2015 - Apr 2016

Status: Complete

Total project cost: €71,429

EU contribution: €50,000



Call for proposal: H2020-SMEINST-1-2015

[CORDIS RCN : 199373](#)

Background & policy context:

In the railway industry, the average age of active rolling stock fleet worldwide is over 25 years. There are more than 300,000 passenger coaches in the world and over 84,000 in Europe (considering train, metro and light rail vehicles).

In addition, train operators need to improve the quality of their services in order to satisfy the increasingly exigent standards and the demands from passengers for advanced travel information and comfort (location, train connections, time to destination, temperature, humidity, etc). These rising requirements are driving to the adoption of advanced Passenger Information Systems (PIS) which require appropriate bandwidth and reliability.

Most of current coaches do not have the necessary networking infrastructure to provide modern PIS. On the other hand, current alternatives present significant drawbacks: Ethernet is a time consuming and expensive alternative to install and operate, while Wi-fi is not ready for its deployment due to its technical limitations (low reliability and insufficient bandwidth).

Objectives:

NET4TRAIN is a novel communication networking solution for the railway industry that supports advanced PIS and on-board diagnosis specially designed for the revamping of aged trains. We offer a broadband network over existing cabling using Powerline communications and thus avoiding the installation of new cables. Therefore, our solution dramatically reduces costs and installation times compared to existing alternatives.

Phase 1 execution will allow us to deepen into the critical data of each target market in order to establish the right entrance strategy, thereby defining our detailed commercialization plan. We will also guarantee the technical and commercial viability of the project in order to enhance European leadership in the railway sector with a very competitive product.

NET4TRAIN presents an attractive Return On Investment, 2.97 in our fifth year of commercialization, and it reaches its payback within 16 months.

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:

Sadel Spa

Address:

VIA M SERENARI 1
40013 CASTEL MAGGIORE
Italy

EU Contribution: €50,000

Technologies:

Infrastructure management
Railway technological infrastructure

Development phase: Research/Invention

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Rail transport

Transport sectors: Passenger transport, Freight transport

Geo-spatial type: Other