

PROJECT

LINX4RAIL2

SYSTEM ARCHITECTURE AND CONCEPTUAL DATA MODEL FOR RAILWAY, COMMON DATA DICTIONARY AND GLOBAL SYSTEM MODELLING SPECIFICATIONS

Funding: European (Horizon 2020)

Duration: Dec 2020 - May 2023

Status: Ongoing

EU contribution: €1,401,129



Call for proposal: H2020-S2RJU-CFM-2020

[CORDIS RCN : 232531](#)

Background & policy context:

European Railway operators are under pressure to decrease their life cycle cost, to increase significantly their reliability and punctuality, to be more adaptive to different services. The European railway system remains very fragmented in terms of technologies, the adoption of new technologies and the renewal of former technologies are not quicker enough for the railway mode to answer rightly to the public policy needs. Research and innovation has a part to play in achieving these goals by giving to the data and their models, and to further the definition of a global railway system architecture as it is developing in other transport modes and industries the relevant roles that will support the necessary evolutions.

Objectives:

The LinX4Rail project sets the grounds for a shared vision of the railway system architecture, as well as the development of the Conceptual Data Model (CDM) which will enable different simulation or operational subsystems to run together, which paves the way to building a shared and interoperable architecture. The objectives of LINX4RAIL-2 are:

- To manage the follow-up of the existing work on System Architecture and Conceptual Data Model (CDM) carried out in the on-going LinX4Rail project, aiming at a large adoption for the European railways sector;
- To ensure wider uptake of results from LinX4Rail by proving the performance of the proposal methodology and vision and by evaluating the impacts, taking into account the business case;
- To establish a single 'repository' for System Architecture and CDM with a well-developed sustainability plan; and
- To adopt a common vision for the functional railway vision able to transform the Europe railway system.

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)

Other programmes: S2R-CFM-IPX-CCA-02-2020 Evolution of Railways System Architecture and Conceptual Data Model (CDM)

Lead Organisation:

Sncf Reseau

Address:

15-17 Rue Jean-Philippe Rameau

93418 La Plaine Saint-Denis
France

EU Contribution: €133,320

Partner Organisations:

Thales Deutschland Gmbh

Address:

THALESPLATZ 1
71254 DITZINGEN
Germany

Organisation Website:

<http://www.thalesgroup.com/germany>

EU Contribution: €222,200

Hitachi Rail Sts Spa

Address:

VIA MANTOVANI 3/5
16151 GENOVA
Italy

Organisation Website:

<http://www.ansaldo-sts.com/it/index.html>

EU Contribution: €58,656

Deutsche Bahn Ag

Address:

Postdamer Platz 2
10785 BERLIN
Germany

Organisation Website:

<http://www.deutschebahn.com>

EU Contribution: €300,888

Bombardier Transportation Sweden Ab

Address:

OSTRA RINGVAGEN 2
721 73 VASTERAS
Sweden

Organisation Website:

<http://www.bombardier.com>

EU Contribution: €39,329

Trafikverket

Address:

RodaVagen 1
781 89 BORLANGE
Sweden

Organisation Website:

<http://www.trafikverket.se>

EU Contribution: €20,500

Network Rail Infrastructure Limited

Address:

1 Eversholt Street
London
NW1 2DN
United Kingdom

EU Contribution: €97,768

Deutsches Zentrum Fr Luft Und Raumfahrt E.v

Address:

Linder Hoehe
51147 KOELN
Germany

Organisation Website:

<http://www.dlr.de>

EU Contribution: €30,000

Siemens Mobility Gmbh

Address:

OTTO-HAHN-RING 6
81379 MUNCHEN
Germany

EU Contribution: €127,988

Indra

Address:

Avenida de Bruselas, 35
Alcobendas Madrid
Spain

Organisation Website:

<http://www.indra.es>

EU Contribution: €25,000

Mer Mec Spa

Address:

VIA OBERDAN 70
70043 MONOPOLI
Italy

Organisation Website:

<http://www.mermecgroup.com>

EU Contribution: €110,768

Knorr Bremse Systeme Fr Schienenfahrzeuge Gmbh

Address:

Moosacher Strasse 80
401060 MUNCHEN

Germany

Organisation Website:

<http://www.knorr-bremse.com>

EU Contribution: €40,519

Caf Signalling S.I

Address:

CALLE JUAN FERMIN GILISAGASTI 4 PLANTA 2
20018 SAN SEBASTIAN
Spain

Organisation Website:

<http://www.eliopseinalia.com>

EU Contribution: €35,551

Railenium

Address:

180 RUE JOSEPH-LOUIS LAGRANGE TECHNOPOLE TRANSALLEY
59300 FAMARS
France

Organisation Website:

<http://www.railenium.eu>

EU Contribution: €39,260

Faiveley Transport Italia Spa

Address:

VIA VOLVERA 51
10045 PIOSSASCO TO
Italy

Organisation Website:

<http://www.faiveleytransport.com>

EU Contribution: €20,016

Alstom Transport Sa

Address:

48 RUE ALBERT DHALENNE
93400 SAINT OUEN
France

Organisation Website:

<http://www.alstom.com>

EU Contribution: €44,345

Kontron Transportation Austria Ag

Address:

LEHRBACHGASSE 11
1120 WIEN
Austria

EU Contribution: €55,023

Technoloaies:

Digital transformation of rail operations

Development phase: Validation

STRIA Roadmaps: Other specified

Transport mode: Rail transport

Transport sectors: Passenger transport, Freight transport
Societal/Economic issues, Deployment planning/Financing/Market roll-

Transport policies: out

Geo-spatial type: Other