

PROJECT

ARCC

Automated Rail Cargo Consortium: Rail freight automation research activities to boost levels of quality, efficiency and cost effectiveness in all areas of rail freight operations

Funding: European (Horizon 2020)

Duration: Sep 2016 - Apr 2021

Status: Complete

Total project cost: €3,600,360

EU contribution: €1,600,000



Call for proposal: H2020-S2RJU-CFM-2015-01-1

[CORDIS RCN : 207495](#)

Objectives:

The overall aim of this specific Automated Rail Cargo Consortium (ARCC) proposal is to carry out an initial phase of rail freight automation research activities in order to boost levels of quality, efficiency and cost effectiveness in rail freight operations of the European railway sector.

The three areas of research activities are:

1. Transporting and delivering freight via automated trains
2. developing automated support processes at the nodes (e.g. terminals, yards and transshipment points)
3. advanced timetable planning

If automation and digitalisation processes are exploited in an appropriate way, rail freight transport can generate significant positive impacts for rail freight transport. For example, increased efficiency on the main railway lines and nodes, reducing lead time and energy costs. Additionally, improved services and customer quality so that the operational timetable is met reliably. Furthermore, optimised business processes and management of complex situations, such as a 15% reduction in time when rail assets sit idle within nodes.

The Consortium is made up of Joint-Undertaking (JU) members of Shift2rail who are the main drivers in developing and transferring automation technologies and processes to the railway freight sector.

The project will start with a Grade of Automation, level 2 (GoA2 level) demonstration and end with a GoA3/4 level cross border demonstration. The start-up activities in this first batch of Shift2Rail projects will be followed up, in subsequent development phases to achieve higher levels of technical readiness, beyond the 36 month project period.

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 GMBH - (Germany);

TRAFIKVERKET - TRV - (Sweden);

ANSALDO STS S.p.A. - (Italy);

SLOVENSKE ZELEZNICE DOO - (Slovenia);

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Organisation Website: [DEUTSCHE BAHN AG](#)

Technologies:

Unclassified Non-technology

STRIA Roadmaps: Cooperative, connected and automated transport

Transport mode: Rail transport

Transport sectors: Freight transport

Transport policies: Other specified

Geo-spatial type: Other