

RAILWAYS AS THE BACKBONE OF TRANSPORTATION SYSTEMS THROUGH MAAS PLATFORMS AND B2B INTERMODAL SERVICES

Marco Ferreira⁽¹⁾, Noman Offel⁽²⁾, Clemens Gantert⁽³⁾, Stina Carlstedt⁽⁴⁾, Henk Jan Borghuis⁽⁵⁾, Nesrine CHATELKHIR⁽⁶⁾

⁽¹⁾Siemens Mobility Unipessoal, Lda

⁽²⁾Hacon Ingenieurgesellschaft mbH

⁽³⁾DB Systel GMBH

⁽⁴⁾SJ AB

⁽⁵⁾Sqills Products B.V.

⁽⁶⁾SOCIETE NATIONALE DES CHEMINS DE FER LUXEMBOURGEOIS

*marco.fernandes-ferreira@siemens.com, noman.offel@hacon.de, Clemens.Gantert@deutschebahn.com,
stina.carlstedt@sj.se, henk.jan.borghuis@sqills.com, Nesrine.CHATELKHIR@cfl.lu*

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Summary: The TS2025 conference emphasizes the pivotal role of railways in the transportation system. This paper aims to highlight this very topic by presenting outcomes of the FP1 MOTIONAL project as part of the Europe's Rail programme. Task 21.4 of this project, led by Siemens/Hacon, focuses on the development and demonstration of MaaS (Mobility as a Service) platforms using B2B intermodal services. These activities leverage the benefits of standardized interfaces established by regulation or adopted by the industry, positioning rail services at the center of a more integrated mobility world.

In the previous phases of the project, the technical solutions were specified enabling different mobility platforms to exchange data, particularly journey planning information, reservations, and ticket distribution. Mobility partners involved in this task include CFL (rail operator in Luxembourg), SJ (rail operator in Sweden), MDM (Metro of Madrid) and DB (rail operator in Germany). Following the specification phase, the development of the platforms began, with three different mobility platforms being built for the railway providers, all aimed at being intermodal and allowing B2B services to be exchanged with third parties.

Hacon developed the platform for CFL which integrates railway, car-sharing, and park & ride services, focusing on the exchange of journey planning information using the latest version of the Open API for Distributed Journey Planning (OJP) standard. This platform will be tested in collaboration with stakeholders from the Madrid region in Spain (scenario without direct border) and the Saarland region in Germany (scenario with border).

The platform from SJ integrates railway, buses, and metro services and focuses on the exchange of reservation and distribution services using the Open Sales and Distribution Model (OSDM), implemented by SQILLS. OSDM is an open standard that is being adopted by the rail industry in several European countries. A similar platform based on OSDM has been developed by DB, facilitating a demonstration scenario with SJ. DB is also collaborating with an external partner, Benerail through OSDM services for Belgium and Netherlands regions. The planned demonstrations will allow travelers to plan and book cross-border journeys from Sweden to Germany and vice versa while only using one of either platform.

These platforms are currently being tested, with some already live and available for the public. Full demonstrations are expected to be completed by Q1 2026, achieving a technical readiness level of 7 or 8 depending on the scenarios. The complete paper will provide more details on the developments and the implications of the demonstrated MaaS platforms for the future of transportation systems, particularly in the context of railways as the backbone of urban and regional transport.

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