



WAYSIDE MONITORING AND TRAFFIC MANAGEMENT SYSTEM LINK MEETING IN ENYSE FACILITIES, IN MADRID



CLUSTER B

The Flagship Project 3-IAM4RAIL focuses on seven different integrated demonstrators for rail assets which are key for research and innovation (R&I) in the rail sector. Integrating asset condition information obtained via advanced monitoring with decision-making tools and into the Traffic Management System (TMS), combining available information with artificial intelligence (AI) and digital twins are covered as key topics for R&I in IAM4RAIL.

Within the FP3-IAM4RAIL project, Cluster B is focused on the design, deployment and validation of an Intelligent Asset Management System for wayside assets. This includes securely collecting, storing and analysing data from wayside assets and sharing information with the TMS. This is the continuation of the work performed in previous Shift2rail projects, in particular In2Smart2.

Hitachi Rail STS SPA, as leader of Cluster B within FP3-IAM4RAIL, brought together the participants of Work Package 3, “Wayside Monitoring and TMS link: Design and Deployment” on Wednesday 29th November 2023, at ENYSE’s state-of-the-art facilities in Madrid. The meeting was both in person and online (via Teams) and the participants focused on critical aspects of the project. Work Package 3 and Work Package 4 make up Cluster B.



WP3 meeting at ENYSE facilities, Madrid



Hitachi Rail STS SPA, leading Work Package 3, focuses on demonstrators, upgrading and updating railway assets to improve the asset management system (IAMS). The necessary integration to optimise the operation, management and interoperability of railway systems in real time can be observed in the Traffic Control Centre. This translates into improved transport management (TMS).

WP3, “Wayside Monitoring and TMS link: Design and Deployment”, aims to develop the generic architecture and implement field installations for an Intelligent Asset Management System (IAMS), laying the groundwork for analysis and integration with the Transport Management System (TMS) in WP4. Key activities include the definition of Use Case visions and system requirements, the planning and execution of field installations, the secure collection and storage of data related to track assets and signalling equipment, the integration of exogenous data sources and the initiation of the design of analytical methodologies. These activities will be carried out in different locations as part of the project demonstrators (four in total: 2 by Thales, 1 by ENYSE and 1 by Indra), validating the entire IAMS process for data acquisition, storage and analysis for Operation and Maintenance (O&M) and TMS needs.



Visit to Enyse's facilities



Visit to the Regulation and Control Centre in Atocha, Madrid

During the meeting, various topics related to the work packages included in Cluster B were discussed, as well as other cross-cutting activities. The group visited the ENYSE's facilities in Madrid, where some of the Cluster B members were able to learn a bit more about all the activities carried out by ENYSE.

The progress made by each of the demonstrators was reviewed by the members of the Cluster B, and the locations of the demonstrators that each of the companies will carry out were discussed. In the same meeting all members took the opportunity to talk about the design of the IAMS architecture and exchange different opinions.

Under the leadership of Hitachi Rail STS SPA, Cluster B remains instrumental in advancing the FP3-IAM4RAIL project. The endeavours within Work Packages 3 and 4 make noteworthy contributions to enhancing efficiency and safety within European rail transport. We express gratitude for the diligent efforts and commitment of all Cluster B team members, anticipating the ongoing success of FP3-IAM4RAIL.



“Funded by the European Union. Views and opinion expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or Europe’s Rail Joint Undertaking. Neither the European Union nor the granting authority can be held responsible for them.”



The project is supported by the Europe’s Rail Joint Undertaking and its members.