



Technical Management Team (TMT) & Steering Committee (SteCo) Meetings in Paris, Nov. 2024



The FP3-IAM4Rail team gathered for an important week of discussions and planning at the SNCF premises in Paris during the last week of November 2024. These meetings brought together first, members of the Technical Management Team (TMT) and in a later stage, the Steering Committee (SteCo) representatives to review progress, refine strategies and align efforts for the future of the project. We extend our heartfelt thanks to SNCF for their hospitality and for providing an exceptional venue that promoted productive exchanges and collaboration.

Technical Management Team (TMT) Meeting Highlights

The TMT discussions explored the progress and challenges across various clusters and work packages.

Cluster A focused on milestone reviews and emphasised the importance of the Annual Report (REPA) to be presented at the beginning of 2025, a key report for tracking and communicating the project's achievements. A main topic of discussion was the necessity of effectively disseminating results as the project advances, ensuring transparency and stakeholder engagement. The team also revisited the Key Performance Indicators (KPIs), exploring updates to reflect the evolution of the use cases.

The work carried out in **Cluster B** in the last period has focused on the completion of the installation activities in both use cases. The monitoring systems have been successfully installed in most of the sites and have enabled the start of the data analysis activities related to Work Package 4 (WP4). The preliminary work performed, consisting of a series of dashboards for the monitoring of point machines and track circuits, was presented at the FP3-IAM4RAIL Mid-Term Event and will pave the way for the development of the Integrated Demonstrator to be provided by the end of 2025.



In **Cluster C**, some strategies were discussed for the development of use cases centred on **IoT onboard health monitoring** for critical train systems, including HVAC, doors and brakes. The completion of test benches marks significant progress, with results now feeding into data processing activities under **Work Package 6 (WP6)**. Concurrently, work on the installation of wayside equipment for **Railway Checkpoints** is progressing steadily.



Technical Management Team meeting.

For **Cluster D**, the team celebrated the completion of contracts enabling the use of balises for data collection, and a notable highlight was the development of a reality model with the exceptional performance of a **satellite positioning sensor** tested in Amersfoort (The Netherlands), showcasing its potential for high-precision applications.

Discussions in **Cluster E** revolved around the ongoing standardisation of **BIM (Building Information Models)** and **integration with Digital Twins** within railway environments. This work, aimed at supporting communication and asset management for stations, remains a critical focus for this cluster.



Technical Management Team meeting.

Lastly, **Cluster F** reported on significant advancements in **Additive Manufacturing** for rail or wheel repair machinery as well as other components. Mechanical testing of materials and polymers is underway, aiming to assess their viability for real-world applications. The upper body **exoskeleton** project also made headlines, with force testing continuing to determine its operational capabilities.

Steering Committee (SteCo) Meeting Updates

The Steering Committee discussions took a strategic perspective, addressing project alignments and long-term objectives. One of the highlights was the importance of exploring new collaboration opportunities beyond those predefined in the Grant Agreement. Strengthening these alignments with other Flagship Projects will help amplify the project's impact and unlock synergies.

The communication achievements of Cluster A were also celebrated, including the success of the **Mid-Term Event** celebrated that same week also in Paris with over 100 attendees (both online and in person), and InnoTrans 2024, the world's largest trade fair for rail transport. Preparations are already underway for InnoTrans 2026. The SteCo also discussed strategies for continuing effective outreach and engagement.



Steering Committee meeting.

Another significant topic was the HERD (Harmonised European Railway Diagnostics) initiative, which aims to harmonise data across FP3-IAM4Rail use cases. The group discussed which datasets would be most relevant to share with HERD and how best to support this initiative, which is set to propose a second stage of their activities soon.

Visits to SNCF Facilities

As part of the week's activities, FP3-IAM4Rail partners had the opportunity to visit some of SNCF's cutting-edge facilities. The first visit was to the Optical Fibre Laboratory at SNCF's premises in Saint Denis. Here, partners were introduced to innovative solutions being developed within the FP3-IAM4Rail project.



Visit to the SNCF facilities.



Leveraging the existing fibre optic telecommunications infrastructure, SNCF has been working on groundbreaking methods for detecting different types of railway damages such as strain deformations, broken rails, component failures and wheel imperfections. These systems also allow for advanced health monitoring of key railway structures, such as bridges and tunnels.

Following the Optical Fibre Laboratory visit, the SNCF team offered a unique insight into the development of their railway track inspection robots, with PRIME as one of the main focuses, a project they have been advancing over recent years. These robots promise to revolutionise infrastructure maintenance by enabling the first steps toward robotised monitoring and maintenance processes. The robots are designed to inspect crucial components, including rail profile, train pantographs and line catenaries, track gauge and tunnel clearance. These demonstrations showcased SNCF's commitment to promoting innovation and aligning their work with FP3-IAM4Rail's objectives.



Visit to the SNCF facilities.

Looking Ahead

The meetings at the SNCF premises underscored the significant progress being made across the FP3-IAM4Rail project following the steps taken at the recent Mid-Term Event. They also highlighted the commitment of all partners to pushing boundaries in innovation, data harmonisation and technology deployment to support interventions, works execution and support to the workforce during the life cycle of the different railway subsystems.



As we move forward, the lessons learned and objectives set during these discussions will continue to guide the project's trajectory. We extend our sincere thanks to all participants for their invaluable contributions and to SNCF for hosting us in such an inspiring environment. Together, we are building the future of European rail innovation for asset management.

Warm regards,

FP3-IAM4Rail Coordination Team



Founding Members



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