

## 1st ER JU FP5-TRANS4M-R Plenary Meeting aiming at transforming rail freight

The 1st Europe's Rail Joint Undertaking (ER JU) Flagship Project 5 (FP5) TRANS4M-R Plenary Meeting took place on 18.10.2022. The event was organised by Deutsche Bahn, ÖBB and Knorr-Bremse at the Knorr-Bremse facilities in Munich. The former production hall, which is now used for events, captured the transformative character of the project in a special way, reflecting the event with a numerous representatives of the 71 consortium partners.



Plenary meeting of FP5-TRANS4M-R in the facilities of Knorr-Bremse in Munich (Copyright: Knorr-Bremse)

Dr. Jürgen Wilder, Member of the Executive Board of Knorr-Bremse AG, Ralf Günter Kloß, Board Member of DB Cargo AG and Mark Topal-Gökeli, CTO of ÖBB-Holding AG, welcomed the participants to the event and emphasized the challenges of rail freight transport to which Europe's Rail as a whole and in particular FP5 must find answers. The expectations are high as by 2025 the following shall be achieved:

- Development of a qualified EU-harmonized Digital Automated Coupler
- Development of systems and solutions for basic autonomous shunting operations
- Integrative deployment of video gates, way side check points, visual recognition methodologies and AI-Tools for yard automation
- Development of dynamic yard/terminal management systems and test their integration with dynamic Traffic Management System (TMS)
- Development of intermodal monitoring and prediction systems, which shall work in combination with dynamic TMS and other resource management systems using AI based models



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

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These developments fit well with the Sustainable and Smart Mobility Strategy, where the European Commission targets to achieve a 90% reduction in transport-related greenhouse gas emissions by 2050 and as a main objective to increase rail freight transportation in Europe by 50% by 2030 and double by 2050. Thus, FP5-TRANS4M-R is focusing on the key innovation drivers for the rail freight system to shift transport volumes to rail, reducing substantially the related greenhouse gases emissions.

However, moving towards seamless and fully digitalised freight train operations represents a paradigm shift driven by a strong interplay of technical and non-technical factors which will force many to rethink. But the mantra is clear: "*Stay committed!*", which was also the central statement, reminding all participants that several years of ambitious goals lie ahead.



Foreground (from left to right): Molley Williams (Project Manager FP5-TRANS4M-R, DB), Dr. Jürgen Wilder, Member of the Executive Board of Knorr-Bremse AG, Javier Ibáñez de Yrigoyen, (Project Officer FP5-TRANS4M-R, ER JU); Background (from left to right): Carlo Borghini (Executive Director of Europe's Rail JU), Mark Topal-Gökeli (CTO of ÖBB-Holding AG) (Copyright: Knorr-Bremse)

ER JU representatives Carlo Borghini, Executive Director of Europe's Rail JU, and Javier Ibáñez de Yrigoyen, Senior Programme Manager of Europe's Rail JU, also highlighted the ambitious goals of the project. Rail freight transport is essential to achieve the European goals for the reduction of CO<sub>2</sub> emissions. Interoperability, integration, and seamless solutions play a major role - the EU funding is fundamental for this. With regard to the implementation of the project, it was pointed out that the output of work is the relevant factor that decides on the disbursement of the funding.



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In the following in-depth panel discussions, which was composed by experts from all over Europe and working in the project, the ambitious timetable of the project and upcoming challenges such as the DAC authorization process was discussed. Regardless of this, smooth cooperation between the project partners is of major importance, as this is the only way to realize the linking of systems and successful testing.

What remains from the day at Knorr-Bremse is the awareness that FP5 will be decisive for the future of rail freight transport. Developing customer-centric solutions is important to achieve the flexibility and reliability that will enable rail to compete with road transport. In order to meet the tight schedule, the project has to be seen as a team sport, said Molley Morgan, project manager of FP5-TRANS4M-R and DB representative, "we can only win together with joint forces".

The FP5-TRANS4M-R project is a project of the Joint Undertaking of the EU and the rail transport industry with a funding volume of approx. 40.6 million €. 71 companies and research institutes from the industry are involved and will implement the contents of the project until March 2026.



FP5-TRANS4M-R members meeting talking about a DAC coupler (Copyright Knorr-Bremse)



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