

Protecting the European rail supply industry's competitive edge

Call for the successor of the Europe's Rail Joint Undertaking in the next European Research Framework Programme

March 2025



About UNIFE

UNIFE, the European Rail Supply Industry Association represents European train builders and rail equipment suppliers. The association advocates for more than 115 of Europe's leading rail supply companies – from SMEs to major industrial champions – active in designing, manufacturing, maintaining and refurbishing rail transport systems (trains, metros, trams, freight wagons), subsystems and related equipment. UNIFE also brings together national rail industry associations from 12 European countries.

The European rail supply industry – market leaders driven by R&I

As the foremost provider of European rail products and a global leader internationally, the European Rail Supply Industry depends on its research & innovation (R&I) capabilities¹ to remain at the forefront of transportation needs and overcome our industry's competitive challenges. Demonstrating its commitment to next-generation technology, the European rail supply industry reinvests 3.6% of its annual revenue to R&I activities. With an annual global market growth of 3% and an expected value of 240 billion Euro by 2029², the European rail supply industry is a global leader in the design, manufacturing and maintenance of railway systems and products, corresponding to over 650,000 jobs in Europe.

The European Commission's 'Sustainable and Smart Mobility Strategy'³ sets concrete objectives and milestones towards the digitalisation and greening of the transport sector and the railways. Achieving Europe's climate neutrality targets by 2050, including a targeted 90% reduction in European transport GHG emissions, is only possible by attracting more passengers and freight to the railway system which therefore needs to become more efficient, attractive and competitive. A coordinated European approach to R&I is vital to accelerate overcoming the historic and obstructive fragmentation among national railway systems and deliver harmonised European-wide solutions making the European rail system more agile, resilient, capacity-performant and achieve the goals of the Single European Railway Area (SERA) and Trans-European Transport Network (TEN-T).

UNIFE calls on the European institutions to establish the successor of the Europe's Rail Joint Undertaking in the next European Research Framework Programme (FP10 or equivalent). R&I is a key success factor in maintaining the competitiveness and global market leadership of the European rail supply industry. The successor of Europe's Rail must have sufficient budget for R&I (minimum EUR 3bn, of which half will come from EU funding and the other half from industry contributions) and EUR 15bn for pre-deployment ensuring the needed technological maturity level and accelerating the market uptake. This will allow to leverage long-term private investments, raise the competitiveness of the European rail supply industry, contribute to achieving the goals of the Single European Railway Area and thus strengthen and grow our European industry.

The first European rail Joint Undertaking was initiated by UNIFE and its members. Shift2Rail (2014-2021; EUR 450M funding through Horizon 2020), and its successor, Europe's Rail Joint Undertaking (EU-RAIL, launched in 2021; EUR 600M funding through Horizon Europe) were both unleashing additional R&I. The success of Shift2Rail and EU-RAIL – contributing to EU policy objectives (SERA, TEN-T) and strengthening the competitiveness of the European rail supply industry worldwide – validate the significance of such public-private collaboration. The continuation of the work Shift2Rail and EU-RAIL is essential in advancing the Technology Readiness Level (TRL) and maturity of the European innovative solutions initiated and developed within these programmes and ensuring the next steps in deployment and implementation across the EU railway network.

¹ Report EC Expert Group on Competitiveness on European rail supply industry - <https://ec.europa.eu/docsroom/documents/37829>

² World Rail Market Study, forecast 2024 to 2029 - <https://www.unife.org/news-resources/wrms/>

³ EC's Sustainable and Smart Mobility Strategy' - https://transport.ec.europa.eu/transport-themes/mobility-strategy_en

European Rail R&I Joint Undertakings – Key to unlocking the Single European Railway Area

To eradicate the historical fragmentation of national railway systems and to create cohesive solutions for the European rail network while meeting the SERA and TEN-T goals, a unified European approach to rail R&I is essential. Structuring European coordinated rail R&I in the form of a Joint Undertaking has been key in overcoming the divergence and the lack of continuity of R&I in the rail sector, by developing a long-term strategy, in close cooperation with all stakeholders⁴ (industry, operators, academia, regulatory bodies). UNIFE sees the following benefits of a Joint Undertaking:

- ▶ **A coordinated EU-level approach:** a joint initiative is essential for aligning new technology deployment across varying national systems, shape future standards and regulations to speed-up R&I to market, requiring long-term investment and collaboration among stakeholders within a comprehensive framework. A Joint Undertaking is a stand-alone platform where all relevant stakeholders come together, thereby supporting the findings of the Letta report 2024⁵.
- ▶ **Tangible results with real added value:** the consistency and long-term nature of the programme allows for the development of technologies from low TRL to pre-deployment and market uptake. Success stories include the development of Future Railway Mobile Communication System (FRMCS), Digital Automatic Coupling (DAC), evolution of European Rail Traffic Management System (ERTMS) or low-cost solutions for regional rail where basic principles were developed in Shift2Rail, and the market-ready development is taking place in EU-RAIL.
- ▶ **Predictability & shared risk management to leverage private investment:** a joint initiative facilitates long-term planning and predictability through large-scale R&I projects and serves as a stable platform for innovative initiatives while enhancing financial contributions and synergy within the rail sector. This is essential for long life-cycle environments such as the railway sector.
- ▶ **Creating a rail R&I ecosystem including SME, start-ups & academia:** a joint initiative promotes collaboration between public and private sectors. With the involvement of SME, start-ups and the academia it is ensured that Europe's ecosystem of rail R&I is strengthened, and new ideas are taken up by the sector.

The core objectives of a successor of EU-RAIL shall be to provide a joint action – aligned with the EU compass to regain competitiveness – for decarbonisation and competitiveness, raising R&I spending and coordinating it on high-impact projects including contributing to the horizontal enablers for competitiveness such as simplification, lowering barriers to the Single Market and removing intra-EU barriers. It is thus supporting the Draghi report⁶ on EU competitiveness results through optimising national rules to ensure competitive markets and the investment in key digital solutions for rail with incentives for industry adoption. UNIFE believes that a new collaborative rail research programme established as a Joint Undertaking shall deliver:

- ▶ **A stronger European railway industry:** to strengthen the global leadership of the European rail supply industry and maintain their positive trade balance in the context of an increasingly competitive global market, notably from Asia. Staying at the forefront of R&I will be a key factor for Europe to maintain its industrial lead.
- ▶ **The policy objectives SERA and TEN-T:** coordinated R&I and a European sector wide cooperation between different stakeholders) is needed to deliver an agile and resilience EU-railway system covering passenger mobility, freight and EU industrial and military strategic capabilities in rural and urban areas.
- ▶ **Reduced costs & simplification of the EU railway system:** utilise R&I as a key tool to significantly lower the complexity and costs of the current European railway system.
- ▶ **Standardisation & harmonisation:** A new joint undertaking is crucial for ensuring the continuation of standardisation and harmonisation activities from past Joint Undertakings. If not, on-going specification work on ERTMS, FRMCS, DAC and others will be put at highest risk and jeopardise any European standardisation approach.
- ▶ **(Pre-)deployment:** to facilitate the transfer of R&I results to the existing system, it is essential to ensure not only harmonization, standardization, and migration planning but also co-funding for (pre-)deployment. This requires collaboration among all stakeholders, particularly industry, operators, and authorities.
- ▶ **Support for basic R&I:** continued support for R&I covering all Technology Readiness Levels (TRL) and to strengthen the European industry and academic rail R&I ecosystem will allow to boost global competitiveness through impactful R&I as described in the Heitor report 2024⁷.

⁴ Report EC Expert Group on Competitiveness on European rail supply industry - <https://ec.europa.eu/docsroom/documents/37829>

⁵ Letta Report - <https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf>

⁶ Draghi Report - https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en

⁷ Heitor Report, DG RTD - <https://op.europa.eu/en/publication-detail/-/publication/2f9fc221-86bb-11ef-a67d-01aa75ed71a1/language-en>

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