

Stamping out cost drivers and making rail investment more attractive

To capitalise on political momentum and European Union (EU) investment in rail infrastructure and assets, the industry must address key barriers such as high costs and the bureaucratic processes that hamper large-scale deployment of key technologies, writes European Rail Industry Supply Association (Unife) director general, Enno Wiebe.



*Italy has used funding to support its ambitious ETCS rollout programme.
Photo Credit: Alstom*

THE current challenges faced by the European rail supply industry, ranging from supply chain disruption to rising labour and material costs, are compounded by the complexities of delivering high-quality and safe solutions in a challenging regulatory environment.

To ensure the viability of rail businesses and to maximise the impact of new investment, it is essential to eliminate cost drivers and to streamline the approvals processes for the

deployment of new railway technology. A particular focus should be on resolving bottlenecks in the rollout of ERTMS, the deployment of which will facilitate a faster, more efficient, integrated and sustainable European railway network.

The European railway supply industry is well-positioned to meet this objective, possessing a healthy market outlook and significant growth opportunities. However, maintaining the sector's competitive advantage requires proactive measures from European policymakers that will help to foster innovation, streamline regulatory processes, and address cost and supply chain challenges.

Investment by the European Commission and member states in strategically important rail projects is essential for the industry to sustain its current momentum and realise its full potential. It will also enhance collaboration across European borders and reinforce Europe's leadership in sustainable and advanced rail solutions.

Unfortunately, the industry's pursuit of success is currently hampered by the prevalence of specifications and standards tailored to national rather than European priorities. This is driving up the cost of both developing and deploying the technology needed to deliver the continent's most important rail projects, including ERTMS. While this technology continues to evolve to enhance interoperability and safety, without steps to address these issues, the complexity and scope of the technical requirements will only continue to expand, leading to ever-higher development, deployment, and maintenance costs for railways, and continuing delays to the delivery of strategically-important projects.

The complexity of the current signalling system that we are deploying in Europe, primarily the integration of ETCS with legacy Class B and national train control systems, along with the task of equipping fleets to operate with multiple systems, is driving up costs rather than bringing them down. The issue is heightened by the fact that there is still no free market for Class B systems. Vehicle retrofit projects are also often hampered by a lack of documentation and data, denying more suppliers the opportunity to bid for these contracts.

The difficulties of navigating the technical approvals process in Europe is another major challenge. Indeed, mastering this endeavour has arguably become a subproject management task in its own right. Coordinating the work of different people and organisations is especially problematic. Extensive testing requirements, particularly for ETCS and radio system compatibility, impose significant financial and resource burdens on project execution. Compulsory third-party assessments similarly add to the complexity and cost of authorisation.

The sheer number of details and requirements to consider, and the high risks associated with authorisation in the current framework, means we have collectively missed the goal of simplifying the deployment of ERTMS, which was at the heart of the project to develop an interoperable signalling system more than 30 years ago. That deployment has been so piecemeal and slow is of little surprise.

Effectively navigating new essential requirements such as cybersecurity, which is becoming ever more important, is another driver of costs. An effective cybersecurity strategy requires the development of new internal processes, including the employment of additional specialists, as well as alterations to the system architecture of products to accommodate future security updates and patches.

These issues are not just the domain of ERTMS but extend to a wide range of rail sector products, intensifying cost pressures. To realise the full potential of the European rail supply industry it is therefore essential to streamline authorisation processes. This will help to establish greater stability in the system in order to meet functional requirements, while providing developers with the confidence needed to identify and develop technical solutions that are safe and offer improved performance for rail operators and infrastructure managers.

In parallel, the system architecture must continue to evolve to become more resilient. By fostering a robust, modular design capable of accommodating future innovation, while maintaining safety and reliability standards, the railway that we all want in Europe is within reach. The European rail supply industry remains the most innovative in the world and is well-placed to deliver what the sector requires. But for it to truly realise its potential, it is essential that the current regulatory shackles are loosened.

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