

# Accelerating interoperability

**OPINIONS** In our second quarterly survey of the railway supply sector, we asked our panel what steps would help to accelerate the deployment of ERTMS and ETCS as a means to improve interoperability in Europe.

Speeding up the adoption of the European Rail Traffic Management System and the European Train Control System, both in Europe and around the world, will undoubtedly be a key topic for discussion at the forthcoming ERTMS World Congress being organised by UIC in Istanbul on April 1-2.

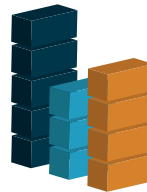
So far, 34 countries have adopted the technology, and contracts have been signed for the deployment of ETCS on almost 69 000 track-km (Fig 1). However, this is still only 4% of the 1.6 million km in operation worldwide, so there is still significant room for growth.

Ironically, given its European origins, the take-up of ETCS has been stronger outside the core market, perhaps because railway operators with stand-alone networks have been able to implement any version of the technology more or less off the shelf, without worrying about interoperability.

The primary driver for the development of ERTMS was the search for technical harmonisation in Europe, yet cross-border applications are few and far between, and several 'early adopters' are still using incompatible versions of the System Requirements Specification. To address the resulting interoperability problems, the European Commission is providing funds to incentivise infrastructure managers to migrate to the agreed Version 2.3.0d or the new Baseline 3 specifications (p53).

So we asked our panel of senior executives which of four levers, if any, they thought would most help to accelerate the deployment of ERTMS and ETCS.

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The biggest vote (32%) was for 'increased regulatory measures by the European Commission, supporting the European Railway Agency'. This would send a strong signal to the market by extending the scope of mandatory ETCS deployment beyond the nine priority TEN-T corridors.

At present the designated TEN-T network only accounts for 33% of Europe's railway infrastructure, and the priority corridors just 16%. Yet these corridors are typically used by up to 90% of the rolling stock fleets, which would all have to be equipped. Making ETCS mandatory for other parts of the network would improve the payback on that investment. It would encourage infrastructure managers and operators to adopt a common control technology when they come to replace their current systems, although it would probably require a generous migration period.

The second-placed lever, selected by 27% of respondents, was 'increased efforts by suppliers to sell their products with open interfaces that are fully interoperable'. This would address any problems of incompatible components and ease the complexity of installing ETCS onboard units, helping to reduce the cost and time needed to get

approval for commercial operation.

The respondents selecting this option clearly believe that suppliers should continue their efforts to offer equipment that is fully compliant with TSI standards. Ending the deployment of incompatible variants is a top priority in achieving interoperability, which is why the Commission is supporting investment to upgrade the older versions of ETCS to the latest standards.

About 14% of the respondents favoured easier access to the Connecting Europe Facility funds in the EU budget for 2014-20. At present, 4% of the €26bn earmarked for the TEN-T corridors is dedicated to ERTMS, amounting to about €1bn. However, this needs to be accessible without a major administrative burden, and a greater share of the corridor budget could perhaps be allocated to ERTMS.

Backwards compatibility is not seen as a major lever. Only 9% of respondents felt that a single Baseline 3 standard for ETCS onboard equipment was the top priority. Nevertheless, the importance of backwards compatibility should not be underestimated, because operators that have already invested heavily in Baseline 2 would otherwise be faced with further costs to migrate to the next level.

A further 9% of respondents took a more pessimistic view, believing that it would not be possible to accelerate the deployment of ERTMS at all. The remaining 9% did not respond this time.

Interestingly, there was no significant variation in the spread of responses by country. Given the long investment cycles and long life of railway assets, including control systems, it is clear from the results that the rail sector needs to set realistic expectations about the pace of ERTMS deployment.

The split of responses clearly shows that our respondents believe that both the European Commission and suppliers must take steps to pave the way. UNIFE Director General Philippe Citroën says the suppliers are 'fully committed to provide the market with interoperable products, and keen to strengthen co-operation with the European Commission and the European Railway Agency. Speeding up the deployment of ERTMS and ETCS is a top priority if we want to achieve a well-functioning Single European Railway Area.'

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**Fig 1. (below left)** Total length of committed ERTMS deployment in track-km as at September 2013.

