



TECHNICAL MEETING

<https://d10-beta.techsoc.org.uk/talks/common-themes-and-challenges-between-etcs-and-cbtc>

Common themes and challenges between ETCS and CBTC

Presented by
Phil Dubery

Wednesday 12 November 2025

Venue: 11th floor (Paddington Room), 197 Blackfriars Road, SE1 8NJ

Commencing at 5:30pm GMT

Talk synopsis

Communication Based Train Control (CBTC) and European Train Control System (ETCS) come from very different places however share much in common.

Starting in the 1980's, CBTC provided groundbreaking solutions developed using emerging digital technologies to improve capacity and reduce wayside equipment as part of an integrated metro solution.

The first European Train Control System (ETCS) specification was introduced in 1996 to facilitate a single, interoperable signalling system to facilitate a trans-European high-speed rail network, replacing many different and incompatible national systems.

The talk will explore some common themes and challenges between ETCS and CBTC.

Speaker biography

Phil has enjoyed a long and varied career in the railway industry starting with London Underground rolling stock design and development in 1983. Since then, Phil has worked across a wide range of UK and international railway upgrades and operations, from concepts and systems designs, through project delivery to supporting robust entry to operational service of modern systems.

In 2014, Phil was one of the founding directors of CPC Systems Limited, a company that was set up to foster innovative approaches to optimising railway capacity, delivering modern systems effectively and using a diagnostic and data driven approach to supporting operational and maintenance improvements.

Phil was actively involved with ensuring service readiness for Crossrail and is currently engaged on the East Coast Delivery Programme both of which roles have provided exposure to the ETCS systems