



COMMENT

3 Reaping the benefits of C-DAS

INTELLIGENCE

7 Main Line | Brightline launches higher-speed inter-city service, Olympic high speed line opens in South Korea, København S-bane PPP planned

12 Urban Rail | Aarhus Letbane debut, first driverless metro line opens in Istanbul, Grand Paris cost concerns

16 Market | Contracts & Tenders

18 Industry | Gibela joint venture moves into new factory, Transmashholding invests in Buenos Aires workshops

19 Innovations | CRRC unveils carbon fibre metro car bodyshell, TMB to trial vertical platform screen doors

21 Analysis | Evaluating opportunities to grow rail-borne logistics in Asia, SNCF seeks TGV efficiencies, Metrolinx and Bombardier settle LRV order dispute

42 A blossoming partnership | Having supplied components for successive generations of French-built EMUs, locomotives and TGV power cars, JST Transformateurs is now expanding in the international market through a close relationship with Hyundai Rotem

SPAIN

46 Still moving forward | Construction work on further high speed lines in Spain is continuing, despite financial and economic constraints. Meanwhile, FCC Construcción has been able to capitalise on its experience with major contracts in other parts of the world

50 UAVs support ERTMS deployment | Having developed advanced drone surveying and post-processing techniques, Sigma-Rail is currently surveying the new Alacant – Murcia high speed line to capture location data for programming of the route's ETCS Level 2 systems

IN FOCUS

52 Towards a '10 by 10' grid | Successive railway master plans have set China on a course to create a 38000 km network of new lines by 2025. Toma Bačić reviews the routes which opened in 2017 and profiles ongoing construction projects

56 Connecting up the Gold Coast | Full services have started operating on Stage 2 of the Gold Coast light rail line ahead of the forthcoming Commonwealth Games

FORUM

58 People | Kelly takes over at California High-Speed Rail Authority, board changes at ÖBB

59 Research & Skills | Shift2Rail issues 2018 call for proposals, apprentices trained for track work at BART

60 Publications | Dieter | Sidetrack

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62 Viewpoint | Main line and metro operators in Asia face the challenge of long-term asset renewal while maintaining service quality. Arthur D Little offers some options for mitigating the 'totex dilemma'



ELECTRIFICATION

26 Making the most of electromobility | Electric traction is seen as a key way of reducing or eliminating environmentally-damaging exhaust emissions, particularly where advances in power distribution and energy storage technologies can reduce the capital cost

30 Traction options proliferate | The imminent debut of fuel cell-powered trains in Germany has stoked interest in hydrogen as a form of 'zero-emission' traction, but a wider range of alternatives to traditional diesel and electric trains is emerging

34 A spark of progress | The electrification of the Israel Railways network has coincided with the adoption by the Ministry of Transport of EU railway regulations and standards

38 A proving ground for overhead conductor rail | Rigid conductor bar has been used for the 1.5 kV DC electrification of Roma metro's Line C, offering a number of technical and economic advantages

