

# CONTENTS

Volume 174 No 3 | March 2018



## Towards better asset understanding



The rail industry is right in the middle of the digital transformation and set its own standard. **Knorr-Bremse** provides a digital, innovative platform for railway 4.0. The flexible, expandable platform offers a range of applications like driver advisory system, condition monitoring, energy metering or collision avoidance. They help minimise life cycle costs and maximise vehicle availability.

## CONTACT US

Railway Gazette International  
7th Floor, Chancery House,  
St Nicholas Way, Sutton,  
SM1 1JB, Great Britain

Tel +44 20 8652 5200  
Fax +44 20 8652 5210  
editor@railwaygazette.com

See p61 for full details

 [www.facebook.com/railwaygazette](http://www.facebook.com/railwaygazette)

 @railwaygazette

Annual subscription in USA \$292.

Railway Gazette International, ISSN Number 0373-5346, is published monthly by DVV Media UK Ltd, 7th Floor, Chancery House, St Nicholas Way, Sutton, SM1 1JB, United Kingdom. Airfreight and mailing in the USA by agent named Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA.

Periodicals postage paid at Jamaica NY 11431.

US Postmaster: Send address changes to Railway Gazette International, Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA

Subscription records are maintained at DVV Media UK Ltd, 7th Floor, Chancery House, St Nicholas Way, Sutton, SM1 1JB, United Kingdom.

Worldnet is acting as our mailing agent.





**COMMENT**

**3 Throwing down the gauntlet**

**INTELLIGENCE**

**7 Main Line** | Longest Balkan tunnel opens, NTV accepts takeover offer, Bayern looks to reduce diesel use

**14 Urban Rail** | Winning REM bidders announced, Kawasaki to supply next-generation New York Subway cars, test running starts on St Petersburg fast tram line

**18 Market** | Contracts & Tenders

**21 Innovations** | Fare collection and journey management innovations were showcased at the Transport Ticketing Global 2018 conference in London

**22 Industry** | GE launches rolling production line in Brazil, Bombardier Transportation reports 'superior performance'

**25 Analysis** | Reform on the agenda in France as infrastructure strategy focuses on capacity, 2019 US budget includes cuts to Amtrak funding, Eurostar heads to Amsterdam

**UNDERSTANDING YOUR ASSETS**

**31 Improving risk management for infrastructure managers** | A decision support tool for European infrastructure managers has been on trial in Ireland

**34 Instrumented revenue vehicles drive track maintenance efficiencies** | Continuous monitoring of track condition and vehicle dynamic behaviour using instrumented revenue vehicles provides regular and rapid identification of track and operating problems

**38 Breaking down the barriers between data silos** | By separating business rules from data processing, ontologies facilitate the automated sharing of data between different IT platforms and enable the integration of asset and operations management systems

**41 Dynamic clearance analysis paves way for automated fleet** | High-precision 3D measurement of the Glasgow Subway network has formed

the basis for accurate clearance simulation ahead of the introduction of Stadler rolling stock

**SOUTHEAST ASIA**

**45 Double-tracking supports SRT recovery** | State Railway of Thailand has launched a programme of track doubling on busy sections of its metre gauge network, as SRT Deputy Governor Voravuth Mala explains to Peter Janssen

**48 Developing a cross-country corridor** | A Chinese-funded project to build an east-west railway across Malaysia is making progress

**TICKETING & FARE COLLECTION**

**50 Next-generation mobility tools on show** | The IT-Trans trade show in Karlsruhe on March 6-8 focuses on smart ticketing, back office support tools and emerging multimodal technology

**IN FOCUS**

**52 Freight rail on the rebound** | North America's seven Class I freight railroads are planning to invest around US\$14bn in capital projects this year

**54 Flytoget fleet ready to roll** | A fleet of 245 km/h trains for Oslo's Airport Express service is nearing completion in Spain

**56 Fostering links across the Gulf** | Policymakers, suppliers and operators will be among the delegates attending Middle East Rail in Dubai this month

**FORUM**

**58 People** | Batory confirmed as Federal Railroad Administrator, Flausch joins Arthur D Little

**59 Research & Skills** | Gauteng welding school opens, Infrabel starts work on national training academy

**60 Platform** | Dieter | Sidetrack

**61 Diary & Contact**

**62 Viewpoint** | Gareth Dennis sounds a note of caution about the technical and commercial hurdles facing the Hyperloop concept