Rolling Stock & Track Maintenance Middle East

Opportunities And Challenges Of New Maintenance Technologies Into The Middle East Rail Sector. Optimising Asset Management With Advanced Predictive Maintenance Solutions, Data Set Analysis, IoT And Industry 4.0. How To Collect And Maximise Value From Massive Data Sets From Every Aspect Of Your Operations To Reduce Cost, Minimise Downtime, Increase Capacity And Improve Services.

Rolling Stock & Track Maintenance Middle East* this year will exemplify the most advanced Condition Based Maintenance Technologies and BIG DATA management solutions showing how to successfully implement advanced maintenance strategies and best leverage IoT and BIG DATA to drive innovative, remote maintenance business cases.

New Rolling stock maintenance technologies and SaaS (Software Services) business models are innovating optimisation of maintenance strategies, improving data analytics and reducing cost. Advanced data capture systems and analysis provide a whole new dimension of visibility on rail assets and can allow rail operators to improve the return they get from their assets by developing new business processes and maintenance procedures. This unique summit sets out to analyses both the predictive maintenance and asset optimisation applications of IoT, Big Data and Condition Based Maintenance—to capture and ‘practically utilise’ data, allowing Train Operating Companies, Infrastructure Managers and Heads of Maintenance to implement or further advance their data capture systems, reducing costs and down time. Attendees will hear from some of the Gulf and Europe’s most successful case study examples and meet the global technology experts and suppliers who will demonstrate how those technologies can significantly improve your business.

As governments strive to meet project deadlines and heavily invest in rail infrastructure, we will also look at the many developing rail projects from across the region. Whilst Heads of Assets, Maintenance and Operations have made huge technological advancements; the exponential innovation in technologies to better harness and utilise data sets means that there remains many more opportunities for Rail Authorities and Train Operators to reduce costs, reduce down time, improve scheduling, increase capacity, efficiency, and better the over-all service. After a decade of success in Europe, ‘Rolling Stock Maintenance’ arrives in the Middle East to demonstrate solutions and deliver examples from across the world demonstrations how to implement advanced condition based / predictive maintenance and leverage IoT and drive advanced maintenance practice within your organisation.

The Middle East is undergoing huge development in the rail sector, with multiple new projects approaching completion; with that will come higher passenger numbers, greater journey opportunities and high passenger expectations. The Middle East is also demonstrating a revolution in rail digitalisation and transformation, backed by huge government interest and investment. This summit is the only ‘specific’ - strategic high-level conference representing the key stakeholders across the entire region.
### 9th October, 2019

**What to expect on the day**

- Digitalisation And Smart Maintenance
- Effectively Deploying IoT Data And Predictive Maintenance
- How IoT Technology Will Bring Advancements In Data Collection And Analysis
- Optimising Maintenance And Operation Planning Through Enhanced Asset Management
- Harvesting BIG DATA To Reduce Operational Cost & Increase Profitability
- Preventative Failure Prediction
- Digitalisation And Smart Maintenance
- The Use Of Data To Optimise Availability Of Critical Assets
- Improving Operational Profitability Through Fleet Condition Monitoring
- Discover What Tools Are Available And What Are Their Different Capabilities
- Technology Exhibition Showcase
- VIP GALA DINNER & AWARDS CEREMONY

### 10th October, 2019

**What to expect on the day**

- Digitalising To Better Track And Asset Availability: Smart Maintenance
- Improve Service Reliability, Cost, Efficiency And Maintenance Practice
- Reduce Downtime As A Result Of Maintenance Activities:
- Limit Failures And Unplanned Maintenance: Dynamic Maintenance
- The Evolution From Reactive Maintenance To An Advanced Predictive Model
- Technology To Support Your Infrastructure Asset Management:
- Digitally Analysis Switches & Crossings
- Continuous Network Monitoring: Predictive Maintenance and Data Utilisation
- Unmanned Diagnostic Systems for Track Inspection: Processing Results
- Increasing Network Capacity – Shortening Time Required To Perform Monitoring & Maintenance Activities
- Advanced, Solution Empowered Railway Asset Management
- Artificial Intelligence Integration
- Fixed Asset Monitoring: Automated Inspection Techniques
AGENDA DAY 1: OCTOBER 9TH 2019

Optimising Rolling Stock Asset Management With Advanced Predictive Maintenance Solutions, Data Set Analysis, IoT & Industry 4.0 How To Collect And Maximise Value From Massive Data Sets From Every Aspect Of Your Operation To Reduce Cost, Minimise Downtime, Increase Capacity and Improve Services.

7:15AM
REGISTRATION & WELCOME REFRESHMENTS IN EXHIBITION AREA

8:00AM
CHAIRS OPENING REMARKS
EXPLOITING THE POTENTIALS OF DIGITALISATION TO ENHANCE YOUR FUTURE
- Lower costs whilst simultaneously improving services
- The business case for Financial and technological investment

DIGITAL MEASUREMENTS VS MANUAL MEASURED TRAINS
- What role will IoT sensors and real-time analytics play in railways

8:25AM
OUTLOOK: THE CURRENT MARKET STATE
- Identifying the current challenges: Reduce cost – whilst increasing capacity and safety
- Identifying the areas and opportunities for financial gain
- Understanding the real opportunities and challenges: Reliability, Cost, Efficiency and Standards
- Asking the right questions is the first route to go entering the world of BIG DATA
- Advances in Predictive Maintenance
- What are the major challenges when driving down cost? Capacity, Downtime, scheduling?
- What information is required to benefit your business?

8:50AM
LEVERAGING ‘BIG DATA & IoT’ TO INNOVATE ROLLING STOCK MAINTENANCE
- What is ‘Big Data’, IoT & Industry 4.0?
- Why and how are they relevant to Rail Authorities
- Outlining the ambitions of “Big Data, IoT and 4.0
- Identifying the unknown data – data you did not know existed
- Identifying the areas and opportunities for financial gain
- Effective planning and control of maintenance tasks
- Real time monitoring of asset health
- Creating value by digitalising train operations
- SaaS ‘Software as a Service Business Model

9:15AM
PANEL SESSION: HOW CAN THE LATEST INNOVATIONS DRIVE REDUCING MAINTENANCE COSTS
- Identifying the current challenges and solutions
- Deciphering real time information and successfully utilising that data: Identifying and extracting meaningful data
- Reducing cost and availability
- Unknown information
- How can a rail way authority remove the risks of digital transformation and guarantee successful predictive maintenance
- How to qualify the economic balance, cost vs benefits
- How can your business model be improved by solving your unknowns?

9:40AM
CASE STUDY: SUCCESSFULLY DEPLOYING PREDICTIVE MAINTENANCE IN RAIL & THE RETURN ON OUR EXPERIENCE OF IoT (TRAIN OPERATOR)
- How to move forwards, and prepare for, predictive maintenance.
- Examples of real predictive maintenance use case studies in rail and our approach to each of these us cases
- The key industry experiences lessons learnt
- Using Your Data to increase productivity and decrease maintenance costs
- Optimising maintenance and operational planning
- How to provide your teams with an unprecedented single-source access to information and analytics to inform their decisions.

10:05AM
MORNING REFRESHMENTS IN THE NETWORKING EXHIBITION AREA

10:35AM
DEPLOYING BIG DATA TO INCREASE PROFITABILITY
- How to interpret data
- Managing your data to insure financial gains
- Effective Planning and controlling of maintenance tasks

For more information on sponsorship, exhibiting or speaker opportunities please contact us on info@we-rail.com or visit www.rail-maintenance-middle-east.com
11:00AM
HOW TO PREPARE FOR PREDICTIVE MAINTENANCE
- Why a solid data and information architecture is important to support IoT and Big Data for your enterprise
- Effectively deploying Predictive Maintenance
- Big data systems architecture and functions

11:25AM
SEPARATING MEANINGFUL DATA FROM THE MASS OF DATA COLLECTED BY SENSORS

11:50AM
THE KEY TO UNLEASHING THE VALUE OF INFORMATION ON RAIL ASSETS: DATA ANALYTICS

12:15PM
LUNCHEON REFRESHMENTS IN THE NETWORKING EXHIBITION AREA

1:30PM
ACTUAL ASSET CONDITION - INSTEAD OF MILAGE OR TIME
- Monitoring the health of rolling stock without the need for human
- Making unnecessary regular manual checks redundant, saving resource, logistics and down time costs
- How to understand when and what to maintain – to enable maintenance to be more cost effective and efficient

1:55PM
BEARING LIFE CYCLE OPTIMIZATION AND DIGITAL MAINTENANCE
- Enabling Condition Based Maintenance
- How to extend the bearing maintenance interval with confidence while reducing maintenance costs
- Building the Digital Maintenance: real case studies

2:20PM
WHAT ARE THE CHALLENGES IN ACHIEVING SUCCESSFUL DIGITAL MAINTENANCE STRATEGIES – WHEN MOVING FROM TRADITIONAL METHODS TO A DIGITAL APPROACH?

2:45PM
THE BUSINESS CASE FOR RAIL AUTHORITIES TO COLLABORATE WITH SOLUTION PROVIDERS
- What are the main risks of a digital transformation process focused on predictive maintenance?

3:15PM
AFTERNOON REFRESHMENTS IN THE NETWORKING EXHIBITION AREA

3:45PM
MAINTENANCE PROCESS OPTIMISATION AND SCHEDULING
- Combining traditional methods, new technologies, better design, and alternative products
- Process optimisation of workflow
- Cost effectively replacing obsolete spare parts, components and materials
- The Cloud: interfaces and devices
- Maintenance equipment and maintenance facilities

4:10PM
ROBUST DATA SECURITY: RESILIENCE AGAINST CYBER ATTACKS

4:35PM
A SUCCESSFUL MAINTENANCE STRATEGY: EASILY ACCESSIBLE INFORMATION FOR MAINTENANCE MANAGER
- Understanding and interpreting your data
- Communicating your maintenance strategy throughout your organisation.
- Minimising the inconsistency and unpredictability of manual labour: Reduce man power and cost and avoid human errors.
- Understanding how to practically apply new technologies and new business models

5:00PM
RETRO-FITTING VS REPLACEMENT OF ROLLING STOCK
- Rolling Stock life extension through retro-fitting
- Better managing life extension and life-cycle costs with the digitalisation of maintenance
- Practical, cost effective solutions to reduce downtime – solutions for obsolete spare parts

5:25PM
CHAIRS CLOSING REMARKS
FOLLOWED BY EVENING NETWORKING RECEPTION & GALA DINNER

For more information on sponsorship, exhibiting or speaker opportunities please contact us on info@we-rail.com or visit www.rail-maintenance-middle-east.com
AGENDA DAY 2: OCTOBER 10TH 2019

Reducing Maintenance Costs Is The Shared Goal For all infrastructure managers. The question is how can we make our infrastructure more intelligent, and what value does that bring? Data Analytics and Predictive Maintenance have therefore become the most pressing challenge for all the key players of the rail way supply chain. How are you embracing the latest digital technologies to remain competitive and optimally effective? Capacity and Improve Services.

7:15AM
REGISTRATION & WELCOME REFRESHMENTS IN EXHIBITION AREA

8:00AM
CHAIRS OPENING REMARKS:

EXPLOITING THE POTENTIALS OF DIGITALISATION TO ENHANCE YOUR FUTURE
- Lower costs whilst improving service reliability, cost efficiency and maintenance practice
- The business case for Financial and technological investment
- What role will IoT, sensors, vision system technology and real-time analytics play in track maintenance
- What is Big Data? What are the myth’s and reality of Big Data?

8:25AM
PANEL SESSION: OPTIMISING INFRASTRUCTURE MAINTENANCE & THE CURRENT MARKET STATE
- Identifying the current challenges: Reduce cost – whilst increasing capacity and safety
- Identifying the areas and opportunities for financial gain
- Understanding the real opportunities and challenges: Reliability, Cost, Efficiency and Standards
- Asking the right questions is the first route to go entering the world of BIG DATA – translating Big Data into financial gains
- Advances in Predictive Maintenance
- What are the major challenges when driving down cost? Capacity, Downtime, scheduling?
- What information is required to benefit your business?

8:50AM
DIGITALLY REPRESENTING YOUR INFRASTRUCTURE
- State of the art tools for predictive technology
- Optimising your maintenance budget and activities
- Unmanned diagnostic systems – acquiring track parameters
- Data Utilisation
- Smart framework to support infrastructure maintenance decision chain
- What Data/Information Architecture is important to support IoT and Big Data initiatives

9:15AM
REDUCING MAINTENANCE COST AND FAILURES WITH SUCCESSFUL PREDICTIVE MAINTENANCE
- Opportunities for predictive maintenance: Using geo-data for Track maintenance
- What Data? Finding data that you didn’t know existed and strategic Data Utilisation
- Diagnosing track defects: Diagnostic data to monitor track conditions
- Leverage asset management to maximise maintenance delivery & reliability of assets
- Reduce number of failures and unplanned maintenance

9:40AM
INTELLIGENT REMOTE TRACK CONDITION MONITORING: MANAGE YOUR ASSETS SMARTER
- What systems are available, and what is the difference between them?
- Survey and Inspection
- Optimising diagnostic data to monitor track conditions
- Optimising technology to minimise maintenance costs
- Combining different systems for predictive analysis
- (TRV)Track Recording Vehicles
- (ATMS) Automated Track Measuring Systems

10:05AM
REMOTE – DRONES FOR INSPECTION: SWITCHES & CROSSINGS

10:30AM
MORNING REFRESHMENTS IN THE NETWORKING EXHIBITION AREA

For more information on sponsorship, exhibiting or speaker opportunities please contact us on info@we-rail.com or visit www.rail-maintenance-middle-east.com
CONTINUOUS NETWORK MONITORING
- Real time monitoring of asset health enables extensive condition-based track maintenance
- Continuous Track monitoring based on Fibre Optic Sensing (FOS)
- Detect track defects at a very early stage effectively planning and controlling of maintenance tasks

ACHIEVING OPTIMUM ASSET RELIABILITY AND MINIMISE MAINTENANCE COSTS
- Shifting from traditional maintenance to a predictive model: Diagnostic inspections vs visual inspections
- Methods and process for implementing track predictive maintenance
- The future of technology applications for maintenance and data utilisation
- Algorithms and image processing technologies
- Real-time information: Separating meaningful data from the enormous amount that has been collected.

DIAGNOSTIC AND MAINTENANCE MACHINES
- Automatic inspection: Vision systems technology
- Automatic patrolling and periodical inspection
- Track Geometry
- At which speeds are you able to recognise defects
- Continuous monitoring with unmanned systems
- Machine learning

IMPLEMENTING NEW EQUIPMENT AND PROCESS CHANGES FOR PREDICTIVE TRACK MAINTENANCE
- New equipment, new processes – moving from manual to predictive
- How long does it take and how much does it cost?

LUNCHEON REFRESHMENTS IN THE NETWORKING EXHIBITION AREA

MONITORING BALLAST CONDITION TO PROLONG ITS LIFECYCLE
- Ballast health tracking technologies
- Ballast condition and preventive maintenance
- Ballast mats

DATA INFORMATION ARCHITECTURE WITHIN YOUR ENTERPRISE
- Importance of data/information architecture in an organisation moving towards digitalisation
- Dependencies of Data? information Architecture within your enterprise
- Key factors of Data / Information Architecture when implementing IoT
- Dynamic Maintenance Management Systems: One single data base for all information
- BIG DATA system architecture and functions

CHAIRS CLOSING REMARKS AND CONFERENCE TO CLOSE
ROLLING STOCK WHO SHOULD ATTEND

■ Directors of Maintenance
■ Directors of Asset Management,
■ Head of Technology
■ Directors of Operations
■ Heads of Remote Diagnostics,
■ Directors of IT & Strategy
■ Chief Information Officers
■ Heads of Data & Analytics
■ Directors of Procurement
■ Heads of Rolling Stock
■ Infrastructure Asset Managers
■ Chief Technology Officers
■ Directors of Infrastructure.
■ Heads of Smart Maintenance
■ Chief Innovation and Digital Officer.
■ Managers of Asset Information
■ Directors of Data Intelligence
■ Chief Information Officers
■ Managing Directors
■ General Managers
■ Heads of Smart Maintenance, CMO.
■ Infrastructure Managers
■ Director of Technology and Innovation.
■ Managers of Asset Information
■ Consultants – Data and Digitalisation, CMO.
■ Head of Data and Analytics
■ Chief Innovation & Digital Officer, CEO’s.
■ Heads of Enterprise Architecture
■ Directors of Rolling Stock Engineering & Maintenance
■ Maintenance Planning and Control
■ Directors of Technology and Innovation
■ Chief Technology Officer
■ Data Scientists
■ Manager of Asset Information

HEADS AND MANAGERS OF TRACK

■ Heads and Managers of Track
■ Track Maintenance
■ Infrastructure
■ Engineering
■ Track Systems
■ Condition Based Maintenance
■ Maintenance
■ Asset Management
■ Data/IT
■ Diagnostics and Maintenance
■ Assets
■ Tamping
■ Safety
■ Quality
■ Reliability
■ Diagnostics and maintenance machines
■ Directors of Maintenance
■ Directors of Asset Management
■ Head of Technology
■ Directors of Operations
■ Heads of Remote Diagnostics
■ Directors of IT & Strategy
■ Chief Information Officers
■ Heads of Data Analytics
■ Directors of Procurement
■ Infrastructure Asset Managers
■ Directors of Infrastructure
■ Head of Track equipment
■ Director of Technology and Innovation
■ Managers of Asset Information
■ Consultants, Data and Digitalisation

TRACK & MAINTENANCE WHO SHOULD ATTEND

■ Heads and Managers of Track
■ Track Maintenance
■ Infrastructure
■ Engineering
■ Track Systems
■ Condition Based Maintenance
■ Maintenance
■ Asset Management
■ Data/IT
■ Diagnostics and Maintenance
■ Assets
■ Tamping
■ Safety
■ Quality
■ Reliability
■ Diagnostics and maintenance machines
■ Directors of Maintenance
■ Directors of Asset Management
■ Head of Technology
■ Directors of Operations
■ Heads of Remote Diagnostics
■ Directors of IT & Strategy
■ Chief Information Officers
■ Heads of Data Analytics
■ Directors of Procurement
■ Infrastructure Asset Managers
■ Directors of Infrastructure
■ Head of Track equipment
■ Director of Technology and Innovation
■ Managers of Asset Information
■ Consultants, Data and Digitalisation

OPERATING TRAIN COMPANIES ATTENDING

■ ETIHAD RAIL
■ Federal Transport Authority – Land & Maritime (FCA)
■ United Arab Emirates Ministry of Infrastructure Development
■ Dubai Expo2020
■ Abu Dhabi Metro and Tramway
■ Dubai Metro
■ UAE Hyperloop
■ Oman Mineral Railway
■ Oman National Railway
■ Riyadh-Dammam
■ Riyadh-Riyadh
■ Saudi Landbridge
■ Makkah Metro
■ Jeddah Metro
■ Dammam Metro
■ Egyptian National Railway
■ Cairo Metro Extension
■ Roads & Transport Authority RTA
■ Department of Transport
■ Dubai Municipality
■ SAR
■ Public Transport Authority
■ Oman Rail
■ Makkah Mann Rail Transit
■ Metro Jeddah Company
■ Arriyadh Development Authority
■ Egyptian Railways
■ Carro Metro
■ ONCF
■ Transport SA
■ SNTF
■ Indian Railways

For more information on sponsorship, exhibiting or speaker opportunities please contact us on info@we-rail.com or visit www.rail-maintenance-middle-east.com
<table>
<thead>
<tr>
<th></th>
<th>SUPER EARLY BIRD (&gt;07TH JULY)</th>
<th>EARLY BIRD (&gt;11TH AUGUST)</th>
<th>STANDARD RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 DAY</td>
<td>$600 USD</td>
<td>$960 USD</td>
<td>$1,200 USD</td>
</tr>
<tr>
<td></td>
<td>£500 GBP inc. VAT</td>
<td>£800 GBP inc. VAT</td>
<td>£950 GBP inc. VAT</td>
</tr>
<tr>
<td>2 DAYS</td>
<td>$1,000 USD</td>
<td>$1,800 USD</td>
<td>$2,000</td>
</tr>
<tr>
<td></td>
<td>£800 GBP inc. VAT</td>
<td>£1,418 GBP inc. VAT</td>
<td>£1,580 GBP inc. VAT</td>
</tr>
<tr>
<td>VIP EXECUTIVE DIINNER</td>
<td>$250 USD</td>
<td>$500 USD</td>
<td>$750 USD</td>
</tr>
<tr>
<td></td>
<td>£196 GBP inc. VAT</td>
<td>£395 GBP inc. VAT</td>
<td>£591 GBP inc. VAT</td>
</tr>
</tbody>
</table>

To book your place visit [www.rail-maintenance-middle-east.com](http://www.rail-maintenance-middle-east.com) or contact [info@we-rail.com](mailto:info@we-rail.com)

For more information on sponsorship, exhibiting or speaker opportunities please contact us on [info@we-rail.com](mailto:info@we-rail.com) or visit [www.rail-maintenance-middle-east.com](http://www.rail-maintenance-middle-east.com)