

# ASIA-PACIFIC Railway Innovations Forum



21 - 24 May 2019

<p>Tuesday, 21 May 2019</p> <p><b>Digital Revolution: Big Data in Railway Asset Management and Private Sector engagement</b></p>	
<p>8:30 a.m. – 9:00 a.m. Registration</p>	
<p>9:00 a.m. - 9:30 a.m.</p>	<p><b>Opening Remarks</b></p> <ul style="list-style-type: none"> <li>• ADB: TBA (Bambang Susantono, VPKM, ADB)</li> <li>• UIC: Jean-Pierre Loubinoux, Director General, UIC</li> </ul>
<p>9:30 a.m. - 10:30 a.m.</p>	<p><b>Keynote Session</b></p> <ul style="list-style-type: none"> <li>• <i>Keynote Speech: Railway Innovations and Future Developments</i> Jean-Pierre Loubinoux, Director General, UIC</li> <li>• <i>Keynote Panel: Technology driven changes in the railway market</i> DMC representatives from ADB's regions</li> </ul>
<p>10:30 a.m. – 11:00 a.m. Coffee Break</p>	
<p>11:00 a.m. - 12:30 p.m.</p>	<p><b>Session 1: Railway Asset Management principles and Life-cycle strategies</b> <i>Modern Asset Management strategies for railways require a Life-cycle approach with a balance between maintenance and renewal, to be based on principles, common definitions, and data processing.</i></p> <ul style="list-style-type: none"> <li>• <i>Maintenance Strategies from corrective, preventive and condition-based to predictive maintenance</i>, Remy Jacquier, Oxand</li> <li>• <i>Asset Management – ISO55000 application guideline for railways infrastructure organizations</i>, Teodor Gradinariu, Senior Technical Advisor Rail System Department, UIC</li> <li>• <i>Rail Topo Model and Asset Hierarchy for the LCC improvement</i>, Airy Magnien, Senior Technical Advisor, UIC</li> </ul> <p>Presentations and Q&amp;A</p>
<p>12:30 p.m. – 2:00 p.m. Lunch</p>	
<p>2:00 p.m. - 3:30 p.m.</p>	<p><b>Session 2: Digital Solutions to lead and steer Railway Design and O&amp;M Strategies</b> <i>The technical developments of data processing and storage have opened a lot of new opportunities, in the design and construction process of rail infrastructure projects and the way to efficiently and sustainably operate and maintain railways.</i></p> <ul style="list-style-type: none"> <li>• <i>Big Data, BIM</i>, (Speaker: ADB Consultant)</li> <li>• <i>Track Data Analytics and Visualization</i>, Ravi Ravitharan, IRT</li> <li>• <i>Innovative Mechanized Track Maintenance</i>, Rainer Wenty, Plasser &amp; Theurer</li> <li>• <i>Railway Operations in the Digital Age</i>, TBA, SMRT Corp. (Systra)</li> </ul> <p>Presentations and Q&amp;A</p>
<p>3:30 – 4:00 p.m. Coffee Break</p>	
<p>4:00 p.m. – 5:30 p.m.</p>	<p><b>Session 3: Opportunities and risks related to the Digital Revolution and new passenger interfaces</b> <i>This session shall highlight a couple of the most compelling opportunities, critical risks and pressing questions of new digital solutions in the railway sector.</i></p> <ul style="list-style-type: none"> <li>• <i>Smart Railway Stations in Smart Cities</i>, UIC</li> <li>• <i>Cybersecurity-solution for current and futures threats</i>, Teodor Gradinariu, Senior Technical Advisor, UIC</li> <li>• <i>Smart Ticketing Solutions</i></li> </ul> <p>Roundtable / Panel Session</p>

Wednesday, 22 May 2019

**Future Trends: Railway Signaling & Train Control, Regional Railway Initiatives, Smart Stations, and Railway Safety**

9:00 a.m. - 10:15 a.m.	<p><b>Session 4: Signaling &amp; Train Control Systems Solutions – Part 1</b> <i>With a variety of different signaling and train control systems in place, each for different railway systems and operation needs, different developments for driverless operations, and technical developments for future 5G or satellite-based systems, these two sessions shall give an overview of different systems, options and near-future system standards.</i></p> <ul style="list-style-type: none"><li>• <i>ERTMS &amp; CBTS – Signaling solutions trends. Future Mobile Radio System for signaling, Teodor Gradinariu, Senior Technical Advisor-UIC</i></li><li>• <i>Signaling Solutions and technical developments in Asia</i> People's Republic of China, Speaker TBD Japan, Speaker TBD</li></ul> <p>Presentations and Q&amp;A</p>
10:15 a.m. – 10:45 a.m. Coffee Break	
10:45 a.m. - 12:00 p.m.	<p><b>Session 5: Signaling &amp; Train Control Systems Solutions – Part 2</b></p> <ul style="list-style-type: none"><li>• <i>Satellite-based alternative for Low Cost-Low Traffic Lines, SATLOC, Teodor Gradinariu, Senior Technical Advisor, UIC</i></li><li>• <i>Urban Rail Automatic Train Operation (ATO) – A solution for Asia Developing countries? Pros and Cons, Speaker TBA (e.g. RATP, SMRT)</i></li><li>• <i>Long Distance Driverless Train Operation in Australia – Speaker TBA (Rio Tinto)</i></li></ul> <p>Presentations and Q&amp;A</p>
12:00 p.m. – 1:30 p.m. Lunch	
1:30 p.m. - 3:00 p.m.	<p><b>Session 6: Private Sector engagement models for DMCs</b> <i>Outsourcing strategies of O&amp;M services, Regulatory Bodies, critical inhouse expertise to ensure a Life-Cycle Approach, Incentive Schemes and Performance Indicators, and general PPP strategies for the massive investment plans of Asia's railway sector.</i></p> <ul style="list-style-type: none"><li>• <i>Suitable PPP models for DMCs, (...)</i></li><li>• <i>Performance and Incentive schemes to manage outsourcing strategies and to ensure Life-cycle considerations, (...)</i></li><li>• <i>Experience with Land Capture Value models, (...)</i></li><li>• <i>Experience with Real Estate Business Development models, (e.g. MTR)</i></li></ul> <p>Presentations and Q&amp;A or Roundtable / Panel Session</p>
3:00 p.m. – 3:30 p.m. Coffee break	
3:30 p.m. – 5:00 p.m.	<p><b>Session 7: Regional Railway Initiatives within Trans-Asian Rail Network Projects</b> <i>With different regional and trans Asian railway initiatives under way, this panel discussions shall give an overview of aligned strategies, shall highlight potential synergies, areas of increasing cooperation needs, and obstacles.</i></p> <ul style="list-style-type: none"><li>• <i>Trans-Asian Railway Network (UNESCAP)</i></li><li>• <i>BRI – The Belt and Road Initiative (PRC)</i></li><li>• <i>... Other Projects. ... (OSJD), (UIC), Singapore Kunming Rail Link (ASEAN)</i></li><li>• <i>ADB's Regional Railway network Initiatives (CAREC), (SASEC), (GMR)</i></li></ul> <p>Roundtable / Panel Session</p>
5:00 p.m. – 5:30 p.m.	<p><b>Closing Panel</b></p> <ul style="list-style-type: none"><li>• UIC</li><li>• ADB</li></ul>



# ASIA-PACIFIC Railway Innovations Forum



21 - 24 May 2019

## Railway Innovations Forum

### Note on Exhibition Booths

#### 1. Background

The Railway Innovations Forum will focus on how the technologies of the Fourth Industrial Revolution (4IR), and increasing digitalization are set to change the way railways are built, maintained, and operated, as well as the approaches to their management and governance.

As the organizers, ADB and UIC would like to support companies wishing to display the latest in railway technology, of any variety, whether related to hard infrastructure, rolling stock, control systems, data gathering, system monitoring, or the like.

Exhibitors who are not technology focused are still welcome, but will be a second priority when selecting for booths.

#### 2. Booth Specifications

Booth spaces are 2m x 4m. As exhibitors have varying requirements, we will not be enforcing a single layout for all. Individual and specific exhibitor needs can be discussed directly with the organizers.

ADB will provide chairs, power outlets and can provide display monitors upon request.

#### 3. Exhibit Area

The Forum proper will be held at ADB Headquarter's Auditorium Zone. The booths will occupy a space either adjacent or right next to this space.

ADB's cafeteria hallway (adjacent to the Auditorium zone) will be reserved for eight (8) booths.

An additional four (4) booths will be available in the Auditorium hallway.

*See the below map for an idea of the area:*

# ASIA-PACIFIC Railway Innovations Forum



21 - 24 May 2019



Exhibit area outlined in red



# ASIA-PACIFIC Railway Innovations Forum



21 - 24 May 2019

## 4. Applying for a Booth

Provide the following information:

1. Name
2. Organization
3. Short description of planned exhibit (300 words max).
4. Details on any material or equipment that would be part of the exhibit (300 words max). *\*ADB has strict guidelines on what may or may not enter its compound. The larger and heavier the item, the less likely it is to be allowed.*

Please email these details to Connie Sayon, ([msayon.consultant@adb.org](mailto:msayon.consultant@adb.org)) copying Ruediger Zander ([rzander@adb.org](mailto:rzander@adb.org)). Deadline for applications is 12 April 2019. Notifications on selection will be released on 3 May 2019.

# ASIA-PACIFIC Railway Innovations Forum



21 - 24 May 2019

## Railway Innovations Forum

### Note on Railway Industry Day, 23 May (Thursday) 2019

#### 1. Background

The Railway Innovations Forum will focus on how the technologies of the Fourth Industrial Revolution (4IR), and increasing digitalization are set to change the way railways are built, maintained, and operated, as well as the approaches to their management and governance.

As the organizers, ADB and UIC would like to support companies wishing to display the latest in railway technology, of any variety, whether related to hard infrastructure, rolling stock, control systems, data gathering, system monitoring, or the like.

To that end, on 23 May, we are organizing a Railway Industry Day where we will be organizing technology oriented sessions in order to hear from the industry directly on the capabilities, applications and potential of these technologies.

#### 2. Topics

In order to best organize the presentation of ideas, the Railway Industry Day will be divided into sessions, each based on a specific theme or topic. These topics are:

- Rolling Stock
- Signaling, Train Control, and Communications solutions
- Mechanized track and railway infrastructure maintenance solutions
- Smart ticketing and passenger service solutions
- Interoperable rail systems and track gauge solutions
- Operation simulation and network optimization solutions

We expect each session to have 5 to 6 speakers, with each speaker to have at maximum, 10 minutes to present in order to allow for a question and answer portion after all presentations have completed.

#### 3. Submitting Proposals

For those interested in speaking in any of these sessions, or in multiple topics, please provide the following information:

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21 - 24 May 2019

1. Name
2. Organization
3. Short description of planned presentation(s) (300 words max).

Please email these details to Connie Sayon, ([msayon.consultant@adb.org](mailto:msayon.consultant@adb.org)) copying Ruediger Zander ([rzander@adb.org](mailto:rzander@adb.org)). Deadline for applications is 12 April 2019. Notifications on selection will be released on 3 May 2019.