

ADB I-JARTS Learning Series on High-Speed Railway

Knowledge sharing on Planning, Construction, Operation and Maintenance

Session 3: Global Experiences on Safety Management for High-Speed Railway

Date and Time: September 17th, 2021, 4:00 PM to 6:00 PM, Japan Standard Time
(12:30 PM to 2:30 PM, IST)

Objectives: The objective of this policy dialogue series is to build capacity on key issues related to the planning, design, construction, operation, and maintenance of High-Speed Railway (HSR) development in Asia. This session will discuss global experiences on safety management for high-speed railway.

Background: Policy makers in Asia look for relevant information on the lessons from diverse HSR international experiences, their success and failure factors that are important for their decision making. HSR development entails a lot of complexities in its planning, design, construction, operation and maintenance works, including socio-political factors of countries. It is critically required to create a common platform where experienced HSR practitioners from around the world can share their experiences, promote increased understanding among policy makers, planners, and transportation managers and researchers in Asia.

In February 2021, ADBI co-organized with IIT, JARTS and WCTRS a virtual policy dialogue. This inaugural session featured the experiences and lessons learned from the civil works for the first HSR in Japan and Germany. The session was highly interactive with short initial presentations followed by a round-table discussion with practitioners and policy makers from Japan, European, and India. In June 2021, ADBI held the first session on Megaproject Governance and Innovation. The session included presentations on the experience of megaprojects in the United Kingdom, followed a panel discussion with Indian practitioners on the applicability of lessons learnt to upcoming Indian projects. In July 2021, ADBI held the second session on Setting and Maintaining Performance Standards for Railway Assets. This session included presentations on the standard setting for service requirements and quality control of rolling stock for a HSR system, drawing from the experience of India and Europe, followed by a panel discussion on the technical, managerial, and human capacity building for domestic manufacturing of imported rolling stock systems that maintains the quality standards described in the presentations.

This third session will focus on Global Experiences on Safety Management for High-Speed Railway. For complex socio-technical systems such as HSR, often a system-thinking perspective is necessary to manage the emergent properties such as Safety. In this regard, the Japanese HSR system is known for its impeccable safety performance for past 55 years of its operation, and its experiences for implementing system-thinking based safety management have now been well documented in several academic studies (See references).

The current session will illustrate global experiences on system-safety implementation for HSR systems.

Language: English, Japanese

Chaired by Dr. Nikhil Bugalia, Assistant Professor, Indian Institute of Technology Madras

Time	Description
15:45 - 16:00 (JST)	Login opens and pre-event chat
16:00 - 16:05 (JST)	Welcome Remarks and Introductions Deputy Dean Seungju Baek ADBI
16:05 - 16:25 (JST)	Presentation: System-thinking for System-Integration: Lesson from Chinese HSR Ms. Airong Dong Signal Manager, BYD Communications and Signalling, PRC
16:25 - 16:45 (JST)	Presentation: A Safety Culture Programme for the European Railways: Key Considerations and Current Developments Dr. Gregory Rolina Programme Manager, Safety and Operations Unit, European Union Agency for Railways
16:45- 17:00 (JST)	Expert Commentary Comments by Dr. Anjum Naweed, Associate Professor, School of Health, Medical and Applied Sciences, CQUniversity Adelaide
17:00 - 17:30 (JST)	Open Q&A and Response from Presenters
17:30 - 17:40 (JST)	Closing Remarks Haruhiko Kono, JARTS

Simultaneous Interpretation (Japanese-English): MIK International

References:

1. Bugalia, N., Maemura, Y., & Ozawa, K. (2019). Safety Culture in High-Speed Railways and the Importance of Top Management Decisions. *SSRN Electronic Journal*, 955. <https://doi.org/https://dx.doi.org/10.2139/ssrn.3512286>
2. Bugalia, N., Maemura, Y., & Ozawa, K. (2020). Organizational and institutional factors affecting high-speed rail safety in Japan. *Safety Science*, 128, 104762. <https://doi.org/10.1016/j.ssci.2020.104762>
3. Bugalia, N., Maemura, Y., & Ozawa, K. (2021). A system dynamics model for near-miss reporting in complex systems. *Safety Science*, 142, 105368. <https://doi.org/10.1016/j.ssci.2021.105368>
4. Hancock, R. (2015). *Shinkansen-The half Century* (T. S. Katsuji Iwasa Masanobu Ishido (ed.)). Kotsu Kyoryoku Kai Foundation.
5. Kumamoto, Y., & Bugalia, N. (2020). Safety and Reliability. In *Handbook on High-Speed Rail and Quality of Life* (pp. 421–434). Asian Development Bank Institute. <https://doi.org/https://ssrn.com/abstract=3814820>
6. Mukoyama, M., & Bugalia, N. (2020). Salient Features of Human Resources Development. In *Handbook on High-Speed Rail and Quality of Life* (pp. 435–445). Asian Development Bank Institute. <https://www.adb.org/publications/handbook-high-speed-rail-quality-life>