**GREEN PORTS WEBINAR SERIES #10**
**Automation for Operational Efficiency and Safety**

**Thursday, 20 August 2026 | 2:00-3:00 PM GMT+8**
**Registration Link: https://adb-org.zoom.us/webinar/register/WN_APcFUQmFQAmE0araighxWg#/registration**

Ports are complex systems where thousands of activities and decisions occur every day, often under tight time and cost pressures. Manual, paper-based, and siloed processes can create bottlenecks, increase safety risks, and make it harder to respond to disruptions such as extreme weather, demand surges, or equipment or system failures. At the same time, port authorities and operators face growing expectations from shipping lines, logistics providers, and regulators for higher throughput, faster vessel turnaround, and stronger safety performance.

Automation, ranging from terminal operating systems and automated gates to remote-controlled cranes, smart sensors, and digital twins, offers a powerful way to address these challenges. When appropriately designed and implemented, automation can reduce idle time, optimize yard space, improve equipment utilization, and provide real-time visibility across port operations and hinterland connections. It can also reduce workers' exposure to hazardous tasks, support more precise traffic management, and enable earlier detection of unsafe conditions.

Ports around the world are already using automation to improve how they operate. Examples include automated stacking cranes and guided vehicles in container terminals, integrated port community systems that streamline documentation and customs processes, and advanced analytics that help anticipate congestion and equipment failures. However, many ports– particularly small and medium-sized ones– operate with legacy systems, limited investment capacity, skills gaps, and concerns around workforce impacts, data security, and interoperability with existing infrastructure.

These challenges are especially relevant in Southeast Asia. The region hosts some of the world's busiest and most advanced ports alongside a wide network of smaller ports that are vital for domestic connectivity, food security, and local livelihoods. As trade patterns evolve, supply chains become increasingly digital, and safety and environmental standards become more stringent, ports need approaches to automation that reflect their different operating environments, priorities, and investment capacity.

Automation does not necessarily require a complete terminal overhaul. Well-planned, incremental investments can help ports address specific operational bottlenecks, make better use of existing infrastructure and workforce capacity, strengthen safety culture, and build toward further automation over time. More broadly, appropriately designed automation can help ports increase operational capacity without proportionate expansion of land or labor and remain competitive in global shipping networks.

This webinar will convene international and regional experts, including port operators and technology providers, to share practical lessons on adopting and scaling automation in Southeast Asian ports. Speakers will present case studies of automation projects and discuss how

challenges around workforce transition and change management have been addressed. The discussion will also explore governance issues such as data ownership and sharing, standards and interoperability, and how to ensure that automation advances both operational performance and safety without creating new risks or inequalities.

At the end of this webinar, participants will:

- Understand key trends in port automation worldwide and their implications for ports in Southeast Asia.
- Learn about practical tools and solutions that can improve operational efficiency, including automated equipment, digital platforms, and decision-support systems.
- Explore how automation can enhance safety for workers and surrounding communities, including by reducing exposure to hazardous environments and improving monitoring of port operations.
- Identify practical steps and enabling conditions – including regulatory frameworks, standards, financing, skills, and partnerships – that can support appropriate automation for ports at different stages of their automation journey.

**GREEN PORTS WEBINAR SERIES #10**
**Automation for Operational Efficiency and Safety**

**Thursday, 20 August 2026 | 2:00-3:00 PM GMT+8**
**Registration Link: https://adb-org.zoom.us/webinar/register/WN_APcFUQmFQAmE0araighxWg#/registration**

**AGENDA**

| Time | Topic & Speaker |
|---|---|
| 3 minutes | **Welcome and Brief Overview**<br>*Jackie Spiteri, SESG Managing Director and ADB Consultant* |
| | **Panel Presentations:** |
| 10 minutes | **Autonomous Transport for Logistics and Port Operations**<br>*Kelvin Zhou, Regional Commercial VP – APAC, Zelostech*<br><br>An introduction into port and urban logistics pain points and how autonomous vehicles are transforming logistics and port operations by addressing the industry's most pressing operational challenges to meet rapid growth of the global logistics sector, driven by e-commerce, sustainability, automation, and supply chain resilience. The session also shares about the different technologies and explores the unique technical challenges of deploying autonomous vehicles in ports versus smart cities. |
| 10 minutes | **Easing Automation: Key Guidelines for System Integration and Data Interoperability**<br>*Oscar Pernia, Co-Founder and CTO, NextPort.ai*<br><br>Automation is no longer exclusive to mega terminals with massive budgets. Incremental upgrades in automation, from OCR at the gate to intelligent system integrations, can boost efficiency and capacity, enhance safety, lower operational expenditures, and support decarbonization targets. A fundamental focus area is the IT landscape management, and as part of it is system integration and data management across applications and platforms. |
| 10 minutes | **The Numbers Behind the Next Move: Data-Driven Automation in Port Operations**<br>*Marielle Lamar, Special Projects Manager – Office of the CEO, Manila International Container Terminal - ICTSI*<br><br>Automation projects require significant investment and typically take years to realize their full returns. It's critical that decisions are supported through evaluation of data-driven analysis to ensure the right areas of port operations are prioritized. |
| 10 minutes | **Moderated Discussion**<br>*Facilitated by Jackie Spiteri, SESG Managing Director and ADB Consultant* |
| 2 minutes | **Closing**<br>*Jackie Spiteri, SESG Managing Director and ADB Consultant* |

**Biographies**

| | |
|---|---|
|  <br>**Kelvin Zhou**<br>Regional Commercial Vice-President, Asia-Pacific, Zelostech | Kelvin Zhou is the regional commercial vice president for Asia-Pacific at Zelos Technology, with over 20 years of experience in maritime, logistics, automation, and AI-driven mobility solutions.<br><br>Throughout his career, he has held leadership roles at PSA, Haskoning, Kalmar, Aidrivers, and Zelos Technology, leading business transformation, technology implementation, and market expansion initiatives across Asia-Pacific.<br><br>With deep expertise in port operations, supply chains, autonomous vehicles, and smart mobility, Kelvin is a frequent speaker on autonomous systems, logistics innovation, smart ports, and the future of transportation. |
|  <br>**Oscar Pernia**<br>Co-founder and Chief Technology Officer, NextPort.ai | Oscar Pernia is a telecom engineer and holds a PhD in Industrial Engineering, specializing in algorithm design and simulation applied to marine operations optimization. He has more than 25 years of international experience in container shipping, including 25+ terminal automation projects across the globe with strong focus on system integration and organizational transformations.<br><br>As Chief Technology Officer at NextPort.ai by Moffatt & Nichol, he leads the development and adoption of digital twin and AI solutions to help ports and terminals optimize their operations and evolve the way they work. |
|  <br>**Marielle Lamar**<br>Special Projects Manager – Office of the CEO, Manila International Container Terminal, International Container Terminal Services, Inc. | Marielle Lamar is the Head of Special Projects at Manila International Container Terminal, ICTSI's flagship terminal, where she leads strategic transformation and cross-functional operational initiatives. She has over seven years of experience in port operations, terminal optimization, system implementation, and international project delivery across Southeast Asia, Africa, Eastern Europe, and Latin America. Her international assignments include leading the operational start-up of Batu Ampar Container Terminal in Batam, Indonesia, and transition planning for ICTSI's Durban Gateway Terminal acquisition in South Africa. She has also supported terminal transformation and best-practice programs in Georgia and Brazil, bringing a global and practical perspective to sustainable port development. |

| | |
|---|---|
|  <br>**Jackie Spiteri**<br>SESG Managing Director and ADB Consultant | Jackie Spiteri is an experienced sustainability professional with over 18 years in the maritime and infrastructure sectors. She is the Founder and Managing Director of SESG, a specialist advisory firm helping organisations navigate the evolving sustainability and reporting landscape through tailored strategies, implementation, and education.<br><br>Jackie has served in leadership roles including Board Member of PIANC ANZ and Chair of Ports Australia's Environment Planning and Sustainability Working Group. She is also an accredited Lead Auditor and the only Green Marine verifier in the Asia–Pacific region.<br><br>Her career highlights include developing sustainability financing frameworks enabling over $750 million in linked debt, contributing to the ASEAN Taxonomy V3 and ongoing work on V4, and leading the creation of KubeNest, an innovative sustainability software platform. |