

ICHCA & NMSA PRESENT: NEW TECH, NEW WORLD WEEK

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**MORRIS WOSK CENTRE
VANCOUVER, CANADA**

18-21 SEPT 2018

NEW TECH, NEW WORLD WEEK

Tuesday 18 September - Friday 21 September 2018

Morris Wosk Centre, Vancouver, British Columbia, Canada

Including:

- **ICHCA International 1-Day Seminar on “Smart Ports & Cargo Chains: Data, Digitalisation & Disruption”**
- **80th Meeting of the ICHCA International Technical Panel**



Kindly hosted by The
British Columbia Maritime
Employers Association



Dear cargo shipping, transport and handling colleagues,

Multiple industry, regulatory and technology forces are converging to challenge and change the world of cargo handling as we know it. Bigger ships and shipping industry consolidation; automation, digitalisation and electrification; and increased safety and environmental legislation all have significant impact for HSSE, risk, compliance, skills and training, cargo care and operations professionals at sea, at the ship-shore interface, in ports and terminals and along landside transport chains.

ICHCA International, the professional membership body and NGO for the global cargo handling sector, is delighted to join with the National Maritime Safety Association, representing the US marine cargo handling industry in safety and health matters, supported by host BCMEA, the British Columbia Maritime Employers Association, to stage a series of meetings and networking under the headline theme “New Tech, New World”.

Taking place in Vancouver, Canada, from 19-21 September, the 3-day event will bring together national, regional and international cargo professionals to explore latest industry, regulatory and technology trends and share views and experiences on the impact for safety, security, sustainability, skills development and day-to-day practical operations.

We hope that you will be able to join us this September for a valuable week of education, debate, information exchange and networking with our expert panel of speakers and with fellow industry professionals.

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The week's agenda includes:

- Tue 18 September ICHCA Board Meeting (*open to ICHCA Board Members only*)
- Wed 19 September **80th ICHCA Technical Panel Meeting** (*open to Technical Panel Members and invited guests*)
- Thu 20 September AM: ICHCA & NMSA Joint Meeting (open to all ICHCA & NMSA Members)
PM: Tour of the Waterfront Training Centre (*open to all*)
- Fri 21 September **ICHCA Seminar – Smart Ports & Cargo Chains: Data, Digitalisation & Disruption** (*open to all*)

Book online at: www.ichca.com/newtechnewworld

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SEMINAR PROGRAMME – FRIDAY 21 SEPTEMBER

**SMART PORTS & CARGO CHAINS –
DATA, DIGITALISATION & DISRUPTION**

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FRIDAY 21 SEPTEMBER 2018
MORRIS WOSK CENTRE,
VANCOUVER, CANADA

A practical seminar from ICHCA International

From daily operations to global regulations, new technology is having a profound impact on the maritime cargo chain across sea and land. As we head toward the next decade, automation, digitalisation, Internet of Things, cloud platforms and other technologies are starting to significantly reshape cargo handling and operations both on the demand and supply side.

Safer, more sustainable and more efficient operations are the potential prize, but for cargo handling professionals and regulators this new reality also poses significant new challenges.

- How do we re-skill and equip people to work safely, securely and productively in an increasingly automated and digital world?
- How do we adapt governance and legislation to the new reality?
- And how do we deal with an exponential increase in cyber risk that threatens to derail digital advances?

Developing new digital competence is key, but hard-won expertise in the tough daily business of safe physical cargo handling, infrastructure management, shipping and land transport operations cannot be neglected or marginalized.

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Join fellow cargo care, handling and safety professionals to discuss:

➤ **GLOBAL & REGIONAL REGULATIONS**

Latest safety and climate regulations, how shipping and transport rule-makers are tackling automated and digital technologies and what industry needs to know and do

➤ **NEW SHIPPING & TRADE DEMANDS**

Ships and cargo peaks are getting bigger, trade growth has resumed, ocean carriers are consolidating, and e-commerce is driving new cargo flows. What does this all mean for cargo handling professionals tasked with safely moving the goods on a daily basis?

➤ **AUTOMATION & DIGITALIZATION IN SHIPPING, PORTS & TERMINALS**

How can ocean carriers, port authorities and marine terminal operators work together and implement new technologies to improve ship-to-shore productivity & safety in the big ship era?

➤ **AUTOMATION & DIGITALIZATION IN LANDSIDE CARGO OPERATIONS**

How can port authorities, marine terminals, railroads, trucking companies, beneficial cargo owners and ocean carriers harness automation and digitalization to improve service and respond to new pressures that come from mega-ships and growth in e-commerce?

➤ **COLLABORATION, CAPACITY BUILDING & SKILLS DEVELOPMENT FOR A DATA-DRIVEN CARGO CHAIN**

CONFIRMED SPEAKERS

The speaker list is a work in progress and will be continually updated:

Wendy Asbil, National Manager Invasive Alien Species and Domestic Plant Health Programs,

Canadian Food Inspection Agency

Dr. Christian Augustin, Head of Sales & Business Development, **indurad GmbH**

John Beckett, Vice President, Training, Safety & Recruitment, **British Columbia Maritime Employers**

Association; Chairman, ICHCA International Ltd

Capt. Richard Brough OBE, Technical Advisor, **ICHCA International Ltd**

James Douglas, Director, **EXIS Technologies**

Colin Laughlan, Former Vice Chair and Acting Chair, **United Nations Centre for Trade Facilitation**

and Electronic Business (UN/CEFACT)

Daniel Negrón, Vice President, **Through Transport Mutual Services (Americas)**

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Maggie Richardson – Sales Application Engineer, **TMEIC**

Erick H.-Saia, Director of Safety & Loss Control, **Greenwich Terminals, LLC** and Safety Representative for the **PMTA**

Stephan Trauth, Vice President Sales, **Yardeye**

Peter van Duyn, Maritime Logistics Expert, **ICHCA Australia** and Centre for Supply Chain and Logistics, **Deakin University**

David Williams, DPhil, Vice President of Policy, **Business Council of British Columbia**

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For more information about this event, write to helen.coffey@ichca.com

AGENDA

YOUR MODERATOR FOR THE DAY

Capt. Richard Brough OBE, Technical Advisor, **ICHCA International Ltd**

07:30 Registration and refreshments

08:30 Opening remarks: Automation, Data and Digitalisation

Setting the scene, ICHCA International's Chairman and the President of BCMEA will pose some key thoughts for the day about the impact of digitalisation, automation and autonomous operations on ports and cargo chains.

John Beckett, Chairman, **ICHCA International Ltd**; Vice President, Training, Safety & Recruitment, **British Columbia Maritime Employers Association**;

Terry Duggan, President, **British Columbia Maritime Employers Association**

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08:45 Brave New World? Scenarios for the Next 25 Years of Container Transport

Daniel Negron, Vice President, **Through Transport Mutual Services (Americas)**

TT Club insures the entire freight supply chain on land, at sea and in the air, from ports and terminals to freight forwarders and logistics providers to ship and container operators. To mark its 50th anniversary, this year the Club embarked on a project with McKinsey & Co to explore what containerisation might look like in the next 25 years.

Based on interviews with senior industry leaders, disruptors, lawyers and other key influencers, the study lays out six possible scenarios for the future. TT Club's Daniel Negron will share and discuss the study's key findings.

Key talking points:

- Global trade and containerisation – the past 25 years
- Six potential sources of value creation in the future
- Will trade growth or digitalisation drive value creation in the next 25 years?

09:05 Six Propositions about Digitalisation and the Labour Market

David Williams, DPhil, Vice President of Policy, **Business Council of British Columbia**

Digital technologies are transforming the way we live, work, produce and consume goods and services. In the future, firms will use digital technologies to automate many routine and rules-based steps in the production process. They will also increasingly automate steps that are complex, cognitive and non-routine.

Based on his recent publication, Dr. David Williams will explore six core propositions about the impact of recent technological progress on the labour market. How can policy-makers – in British Columbia, Canada and globally – maximise the productivity gains of technological progress through digitalisation, while taking steps to mitigate its intrinsically-skewed distribution of benefits?

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Key talking points:

- What is the digital economy?
- How is technology transforming the labour market?
- What are the implications for economies and policy makers?

09:25 How will Technology-Driven Disruption Impact Cargo Handling Operations, Policy, People and Regulation?

How are national and international regulators responding to rapid technological advances on land and at sea? How should the cargo handling community respond to take advantage of the opportunities created by new technology while mitigating the risks?

Capt. Richard Brough OBE, Technical Advisor, **ICHCA International Ltd**

John Beckett, Vice President, Training, Safety & Recruitment, **British Columbia Maritime Employers Association; Chairman, ICHCA International Ltd**

09:40 Q&A, networking and refreshments

10:30 Moderator's introductory remarks

10:40 New Tech in the New World. Three Case Studies for Autonomous Bulk Port Equipment in the Americas

Dr. Christian Augustin, Head of Sales & Business Development, **indurad GmbH / Yardeye GmbH**

Smart technologies are now a reality in dry bulk handling, helping to de-bottleneck port operations, increase safety and enhance productivity. This case study session will explore how intelligent sensor fusion networks and smart automation concepts have been deployed successfully over the last two years at Pacific Coast Terminals and Westshore Terminals in Vancouver and at Vale's Ponta de Madeira facility in Brazil, introducing remote-controlled and fully autonomous solutions for ship loading, stacker/reclaimer and car dumper equipment. The presentation will also look ahead to the next generation of bulk automation technology.

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Key talking points:

- The business drivers for remote control and automation in bulk handling
- The connection between remote control, productivity and safety improvements
- New trends in smart machine control for the future

11:00 Safe. Time. Human-Machine Interaction in Automated Intermodal Terminals

Stephan Trauth, Vice President Sales, **Yardeye**

Interaction between personnel and automated container cranes in the intermodal field is not possible without safe tracking and identification of personnel. Yardeye has developed a solution to allow automated crane movements in combination with working personnel.

The presentation will explore the possibilities for simultaneous interaction between personnel and automated container cranes, showing how equipment, infrastructure and personnel must be equipped for a safe, reliable and durable tracking of all parties. Safety also goes hand-in-hand with performance, with new technology allowing path optimisation and efficient movements of the crane from the starting point to the destination.

Key talking points:

- Enabling safe and productive interaction between personnel and automated cranes
- Exploring the state-of-the-art in processes and technologies
- Future trends and possibilities

11:20 Q&A

11:30 Landside Automation in Container Terminals

Maggie Richardson – Sales Application Engineer, **TMEIC**

Bigger call exchanges and tough market competition are putting pressure on container terminals to increase throughput and efficiency. Automatic stacking cranes (ASCs) increase productivity inside the terminal 'four walls' by performing robotic moves inside a designated

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stacking area and using remote operators for interactions with horizontal transport equipment. Reducing congestion and queues at truck gates is also vital to maintain cargo chain efficiency and reduce environmental and social impact from idling vehicles.

TMEIC has developed a new system allowing autonomous operation between ASCs and top-loaded container handling equipment (CHE), including road-chassis, without additional sensors or infrastructure requirements, helping to eliminate delays and mitigate emissions in the Landside Transfer Zone.

Key talking points:

- The current limitations with terminals using automated stacking cranes
- The potential benefits of adding a landside automation system
- How the technology is possible without additional infrastructure

11:50 Rise of the Robots: Automation in Ports and along the Cargo Chain

Peter van Duyn, Maritime Logistics Expert, **ICHCA Australia** and Centre for Supply Chain and Logistics, **Deakin University**

Automation is happening across all links in the supply chain, but there are many technical and legal issues still to be resolved, not least around connectivity, cybersecurity and safety.

Artificial Intelligence will speed up the pace of automation, but autonomous vehicles and vessels operating in a part manual/part automated environment present challenges that will need to be overcome. Peter van Duyn will look at present and future developments in automation across sea, ports and landside cargo operations.

Key talking points:

- When will the future arrive? Technology tipping points
- Current and proposed automation in container terminals and other cargo chain activities
- Automated end to end supply chains
- Autonomous vehicles and vessels

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12:10 Q&A, networking and lunch

13:45 Moderator's introductory remarks

13:50 **Data Pipelines: Achieving Seamless Integrated Global Trade Data Exchange**

Colin Laughlan, Former Vice Chair and Acting Chair, **United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)** and President, **LCI, Inc.**

Today's international trade procedures require a complex flow of information involving many parties, often with heavy and redundant documentation, hampering commercial, regulatory and logistical decision-making. This approach does not adequately support global cargo flows for modern government requirements such as cross-border security compliance, risk assessment and customs clearance, nor private sector needs for optimised transport planning, cargo handling and safety standards, not to mention commercial processes.

The Data Pipeline concept is central to a seamless, integrated structure for the exchange of data in global trade and cargo transport, allowing data that originates at source – including information from 'smart' devices – to be collected once and used multiple times. But for global data pipelines to function, the use of internationally recognised standards is crucial. A suite of Reference Data Models to support the data pipeline principle has now been completed by the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) and work is underway now on additional standards that are expected to stimulate the development of commercial data pipelines in the near future.

Key talking points:

- Which supply chain actors will be impacted directly with data pipelines
- How data pipelines will enable the right data to be collected from the right party at the right time
- How data pipelines can facilitate supply chain safety and compliance

14:10 Q&A

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*** SPECIAL FOCUS ON DANGEROUS GOODS & BIOSECURITY ***

14:20 Moderator's introductory remarks

14:25 **Technology and Transportation: The Future of Shipping Dangerous Goods**

Erick Hawley-Saia; Director of Safety & Loss Control, **Greenwich Terminals LLC** representing the **Ports of the Delaware River Marine Trade Association**

The cargo community prepares, loads, transfers and delivers dangerous goods every day. However, an incident involving dangerous goods can quickly escalate, placing everyone in the supply chain at risk, as well as the wider public. Technology, and education about its use, can empower employees and global stakeholders to properly ship these cargoes, as well as to prepare for and respond to a dangerous goods incident.

Learning about and properly using technology will help mitigate the risk of an incident occurring and enable all those affected by an incident to make educated decisions in the critical first moments and thereafter.

Erick Hawley-Saia will explore how to make best use of current technology, how to share intelligence on new tools under development and how to bring emerging technology innovations to the operational level as quickly as possible to advance safety in dangerous goods operations.

Key talking points:

- Current technology readily available to help safely transport DG
- Emerging technology that will advance DG transportation to the next generation of mobility and effectiveness
- Understand the potential connectivity of stakeholders in the supply chain using these technologies

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14:45 Digital Initiatives in Dangerous Goods Cargo Shipping which will Help to Improve Safety and Efficiency at Ports

James Douglas, Director, **EXIS Technologies**

Around 10% of containers carried on deep sea container lines are declared as classified dangerous goods. Before any of those make it on board, they go through the regulatory IMDG checks with which we are all familiar. Complicated enough. Then container lines must check that they can be loaded under the DG house rules for their operations, relevant vessel restrictions and whether the individual DG shipments or sum total of the DG classes on board contravene any port or terminal restrictions en route.

But it doesn't end there as many container lines are members of shipping alliances and some of the DG will be shipped with partner line vessels to serve the destinations. So, all the DG must go through the same house, vessel and port checks for the partner lines' legs. And all this before initial acceptance of a container. Add to this the fact that sadly some shippers either do not declare or mis-declare DG cargo then the possible dangers multiply. Some containers are inspected pre-export to ensure compliance and if shippers know about random checks this can help to deter fraud.

Technology solutions are now being developed to make all this information accessible in one place to reduce acceptance delays, improve compliance and decrease safety risks, as well as providing a powerful database for analytics. The presentation explores current industry initiatives to improve safety through data quality and common databases whilst challenging the port/terminal industry to join the process.

Key talking points:

- A holistic view of the DG/Hazmat industry and how digitalisation can enhance safety at sea and in ports
- How shared data will improve safety and efficiency at ports and terminals
- How analytics from the data will give ICHCA and other NGOs better information with which to help influence policy

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15:05 **Biosecurity: Your Opportunity to Deliver!**

Wendy Asbil, National Manager Invasive Alien Species and Domestic Plant Health Programs,
Canadian Food Inspection Agency

The migration of plant and animal species to non-native areas poses a growing threat to the global ecosystem and biodiversity. Recognising the issues posed by world seaborne trade, ICHCA has jointly published *Prevention of Pest Contamination of Containers: Joint Industry Guidelines for Cleaning of Containers* together with the Container Owners Association, IICL and World Shipping Council

In her presentation, Wendy Asbil will highlight the importance of biosecurity measures along the supply chain from original to destination in mitigating plant health risks to North America. While the North America Sea Container Initiative will be the main focus, other plant protection regulatory programmes and initiatives will be discussed.

Key talking points:

- Understanding the biosecurity risks of conveyances, containers and cargoes and some of the initiatives in place to mitigate the issues
- What are the implications of plant protection regulations on cargo flows?
- How to prepare your organisation to contribute to biosecurity initiatives to sustain business operations and trade flow

15:25 **Q&A**

15:35 **Closing Discussion and Key Take-Aways**

16:05 **Networking and refreshments**

16:30 **Close of seminar**

ICHCA International reserves the right to alter the seminar timing, content and speakers

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