



TRANSPORTATION SUMMIT 2011: BEST PRACTICES SHAPING GLOBAL LOGISTICS

A JOINT CONFERENCE BY WESTAC
& THE GLOBAL INSTITUTE OF LOGISTICS



MARCH 2 & 3

Post-Summit Report

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Prepared by
Colledge Transportation Consulting Inc.

Overview

Ruth Sol, President of WESTAC, opened the Summit by welcoming delegates and international speakers to Vancouver. Ruth noted that the spirit of an event based on collaboration and innovation is second nature to WESTAC, an organization with almost 40 years of experience promoting collective thinking and collaboration by the many stakeholders within transportation. It was said recently that, “best practice is not good enough.” What this really means is that **best practice does not stand still** – it is ever moving – it is a **journey**, not a destination. When we discuss integration, it is not just integrating the systems, the road and rail interfaces, the software programs, and the ship arrivals with the dispatch. It is **building the relationships** that go **beyond** the hardware, and the software, **beyond the concrete**.

Canada’s system of gateways and corridors – and particularly Canada’s Pacific gateways and corridors – has largely moved beyond the concrete. Driving value to our systems now is about **marketing excellence** – about **policy excellence** – about **diverse new relationships** to get the job done better than we ever could have imagined.

The **Western Transportation Advisory Council (WESTAC)** and the **Global Institute of Logistics (GIL)** were pleased to welcome nearly 100 senior level delegates representing industry, government, labour and academia to Vancouver, Canada on March 2 and 3 to participate in *Transportation Summit 2011: Best Practices Shaping Global Logistics*. This two-day Summit capitalized on four years of research around the world by GIL, a not-for-profit organization, to identify global best-in-class logistics relative to port and marine terminal operations.

The Summit explored best practices and benchmarking in cargo supply chains from North America, Europe, Asia and Australia based on a series of thought panels. In addition, two workshops were held on the Service Guarantee (Marca De Garantia) and the development and use of Container Terminal Quality Indicators.

The full conference program and presentations are available at <http://www.westac.com/conferences/BestPracticesSummit/index.html>

Outcomes

The Summit was a unique occasion to bring international expertise to Vancouver. As delegates heard, there are significant opportunities for Canada’s supply chains to make changes that will **align and integrate business objectives and outcomes and drive growth and prosperity**:

1. **Port clusters – embrace the orchestra.** Successful supply chains are collaborative where all components work together as a unified whole. The demonstration of Valenciaport’s Port Community System highlighted what is possible with greater collaboration.
2. **Measurement as foundation of improvement.** The way to create meaningful change is to measure, set standards and improve. The Summit provided excellent examples of two measurement and monitoring tools: Container Terminal Quality Indicator and Marca de Garantia (Service Guarantee).
3. **China – a door opens.** China’s new 5-year Plan’s focus on greater imports of consumer goods creates opportunities for Canadian exporters.
4. **Learn and adapt, not adopt.** Best practices from around the world help speed the learning to improve Canada’s logistics systems; at the same time, every success story must be adapted to Canadian conditions.

Setting the Scene: Global Container Trade & Panama Canal Expansion Effects

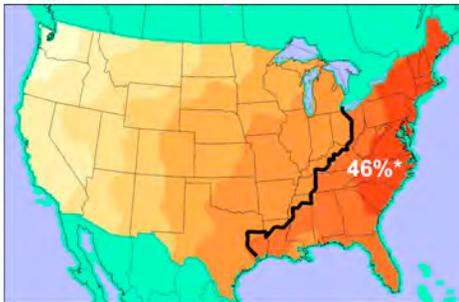
Total world container traffic registered zero growth between 2008 and 2010. Bob West presented WorleyParsons' global container trade outlook projecting 6.6% average annual growth for the period 2010-15 and 5% annual growth for 2015-30. The double-digit growth rates experienced in the mid-2000s are unlikely to be seen again.

By 2012, 64% of containership capacity—just 30% of the ships—will be post-Panamax vessels. When the expanded Panama Canal opens in 2014, it will be capable of handling 12,600 TEU ships. These ships introduce new efficiencies and will call at major hub ports located primarily in the Caribbean because many US East Coast ports (USEC) cannot efficiently handle 8,000+ TEUs from one ship. Ports such as Freeport, Caucedo, Kingston, Colon/MIT and eventually Cuba could potentially become competitive trans-shipment hubs serving multiple markets on the USEC and South America.

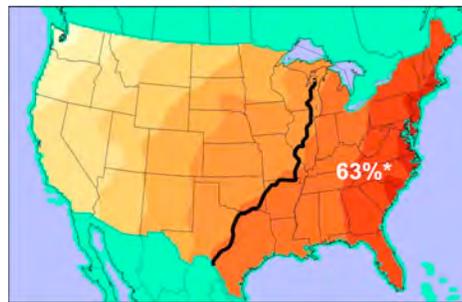
The added costs of trans-shipping on Asia to USEC routes can be offset from the expected \$123/TEU cost decrease for ocean carriers made possible by using larger vessels after the Panama Canal expansion. It is estimated that the effect of shifting to larger vessels plying the all-water route expands the potential market reach of USEC ports, allowing them to service 63% of the US population more cost-effectively. Currently, only 46% of the population is reached more cost-effectively using smaller ships, on an all-water route before the Canal expansion (see map below). With higher fuel costs, the Panama Canal (all water route) becomes more advantageous from a cost perspective.

Market Reach of USEC Ports (share of US population served by rail)

4,000 TEU ship



8,000 TEU ship



Source: WorleyParsons



Bob West, WorleyParsons

China: New Market Opportunities

- The Central Government's 11th 5-year plan (2007-11) included logistics infrastructure for the first time
- Past Chinese economic development has relied on exports, while the new 5-year plan unleashes consumer demand, creating new opportunity to meet increased domestic consumption
- Reshaping of the economic structure for imports will meet growing domestic demand
- Educate Chinese consumers about the brand you are importing; don't assume your product translates culturally

Best Practice: Connect, Collaborate, Orchestrate

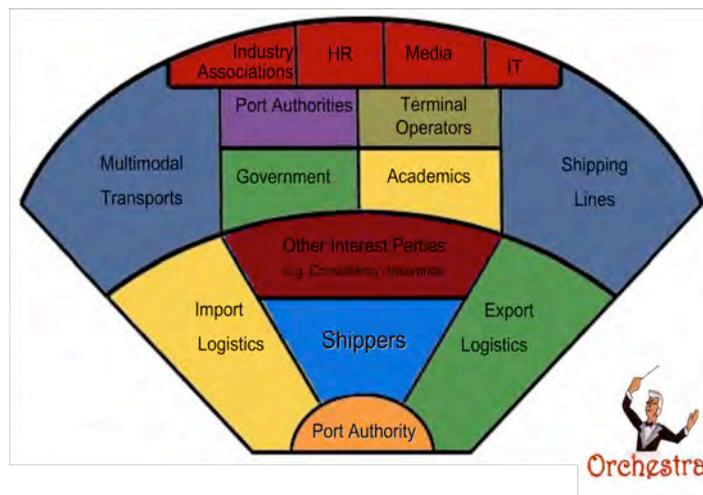
Kieran Ring, the CEO of GIL kicked off discussion by noting continued global cargo growth as a megatrend. Logistics and supply chains are the arteries of commerce that make globalization possible. Logistics costs account for 8.9% of GDP in the US. The job of logistics is to leave more money in the consumer's pocket, engineering the supply chain to achieve the lowest cost. However, the business model that supports the industry was characterized by GIL as adversarial, often trapping value in individual supply chain silos.

“Logistics is the thinking part of the physical and then becomes the physical part of the thinking.”

Kieran Ring, GIL

This set up one of the central themes for the Summit—collaboration—where the “soloists” join the “orchestra” (see graphic below). More coordination and integration among stakeholders, including labour in the orchestra, can lead to more efficient supply chains and ports that are more competitive. However, we do not naturally come to the game of collaboration. Professor Alan Cranfield, President of the British Institute of Transport and Logistics said, “we have been taught to compete but nobody has taught us to work together.”

The Supply Chain Orchestra



Who is the natural stakeholder in the supply chain to be the conductor of the orchestra? GIL indicates **modern port authorities are moving away from their traditional landlord role to become economic strategists** that enable collaboration. Jean-Paul Rodrigue, who concluded that port authorities are active in the setting of functional corridors to capture added value and reduce supply chain risks, confirmed this idea.



To understand how we get to the orchestra status and the appropriate role for a port authority, it is important to learn what others are doing. To this end, GIL is creating a **global Knowledge Network** connecting people and processes in the pursuit of efficient and effective global maritime container supply chain standards. Knowledge is collected through best practice examples from around the world. Each example is then broken down further to standards and tools of each best practice. It is a three-step process:

- **Re-Formation** – creating a network of thought leaders from around the world;
- **In-Formation** – benchmarking lean supply chains and developing supporting research programs;
- **Trans-Formation** – creating standards of quality and best practices tools, programs and standards – the **Container Terminal Quality Indicator (CTQI)**.

Container Terminal Quality Indicator (CTQI)

- CTQI demands care and attention to quality – aims to make terminals continuously better and also let others know about terminal service quality
- Process involves appointing a CTQI manager, defining what quality means, record keeping on 80 different container terminal performance metrics
- Intended as a roadmap for terminals to improve performance to make the biggest gain with the least amount of effort
- Key metrics include:
 - Gross moves per hour
 - # vessel calls per year
 - Age of equipment
 - Number of truck calls
 - Import/export volume and total throughput
 - Average moves/truck
 - Number of rail moves

In many ports around the world, communication outside the port gates is limited. Valenciaport noted the old way of thinking was that if port stakeholders demonstrated transparency—showing others what they were doing— they would lose money and their competitive edge. Instead, Valenciaport’s approach for more than twenty years has been to **recognize the importance of the port community** and the role of the port authority as a leader/referee.

Service Guarantee:

Valenciaport has established a system with an integrated network of 180 companies in the port cluster, independently **certified as able to meet a set of published service levels—the Marca De Garantia**—or service guarantee. If the customer service standard is not met, a small fee is paid to the customer and the port authority takes up the issue with relevant stakeholders with the goal of improving the operation. Marca De Garantia creates a **quality culture because it encourages less efficient players to improve quality standards**.

Service Guarantee – Marca De Garantia

- The service guarantee provides an incentive for the port community to improve services – the overall quality of a supply chain is determined by its weakest link
- If the service level is not met, a penalty is paid to the customer; annual payments only about 40,000 Euros (berthing failure rate vs. standard is <1%)
- Annual administration budget is about 0.5 million Euros
- Implementation process:
 - **Diagnose maturity of port community** by interviewing key stakeholders – what is the perception of global port service level
 - **Form “impulse” group** among most important stakeholders to define the standards and act as a champion of the service guarantee
 - **Create governing council** to oversee and address supply chain issues as they arise – continuous improvement

Port Community System:

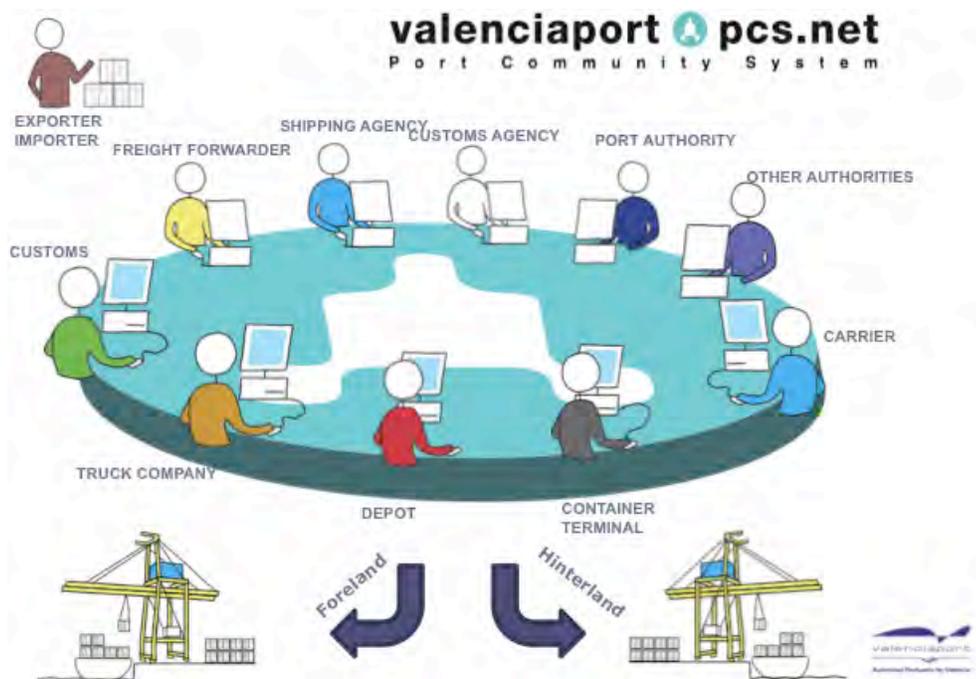
Jose Garcia de la Guia, Technology Innovation Director at the Port Authority of Valencia¹ delivered a compelling, descriptive presentation on a Port Community System (PCS), an electronic community connecting all stakeholders to the process. The objective of Valenciaport's PCS is to have the best service in the country and to be competitive among powerful European ports. A PCS treats the port community as a whole, encompassing vessel operations, cargo loading/unloading and transfer, container gates and security, customs and other authorities. Targeted users/customers include: shippers, port operators, authorities (customs, harbour master, Coast Guard, immigration, etc.), shipping lines, agents, NVOCC's, container depots, road and rail operators, freight forwarders, logistics operators, inland terminals and customs brokers.

The end client does not distinguish service between different players in the Port Community; instead, their impression positive or negative is of the whole Port experience. The role of the Port Authority as a coordinator is key to guarantee the global quality of port services.

In the end, it is about the people and the culture—moving from “me” to “we”.

Emilio Aliaga Lleó
Marca de Garantía, Valenciaport

A key to connecting and creating a sense of port community is information technology (IT) collaboration; **all stakeholders at the same virtual table** (see diagram below). The PCS is viewed as a cooperative service and provides a one-stop portal to share information between the entire port community. This virtual system was illustrated through a demonstration of a single window system based on Automatic Identification System (AIS technology). Valenciaportpcs.net is an impressive automated track and trace system that manages every aspect of container moves through its terminals including loading and unloading, vessel bookings and customs information. The system can be used to solve common problems, add value for customers and improve the overall efficiency of the port.



¹ The Port Authority of Valencia is a state-owned public entity managing three ports—Sagunto, Valencia and Gandia—located along 80 km of the eastern border of the Spanish Mediterranean coastline. Valenciaport is a registered commercial trademark and the ports handled 64 million tons and 4.2 million TEU in 2010.

Collaboration is a Competitive Advantage:

Under the leadership of its President & CEO Robin Silvester, Port Metro Vancouver (PMV) has transformed itself from a single link in the supply chain to a “driving force in delivering and leveraging supply chain value for industry, communities and our nation.”

The port authority is focused on leading change by driving long term planning and stability within the port community. To do so, it is focusing on increasing supply chain measurements and reliability by integrating, influencing and leading/orchestrating new operating practices. This will allow stakeholders to lever individual investments, better mitigate risks and more dependably deliver the reliability and consistency that customers demand.

Collaboration consists of three critical elements:

- **Collaborative strategy development** by creating a common vision that builds commitment, trust and accountability;
- **Joint investment** through collaborative financial commitment to the joint strategy;
- **Collaboration in operational measurement and improvement** to define and refine mutual benchmarks, expectations and commit to reciprocal accountability.

“A more inclusive, more accountable, more transparent understanding of each other will inevitably contribute to a better story.

I suggest to you that a much more complete understanding of each other is, in fact, the source of the value of collaboration.”

Robin Silvester
Port Metro Vancouver

The ideal outcome of this collaboration and alignment of objectives is better leverage of investments, an ability to mitigate risks, and a reliable, consistent experience for customers. Collaboration offers socio-economic and environmental benefits for communities.

Opportunities in the Hinterland:

Dr. Felix Kasiske, the Head of Terminal Development and Design for Hamburg Port Consulting GmbH emphasized that the waterside performance of ports is not necessarily the driver of growth; however, effective waterside performance is the foundation for growth and development in other areas. He encouraged ports to focus on capturing hinterland freight sources and destinations by **using smart hinterland solutions**. Hinterland access will be a driver of growth. Some of the best practices in Europe today involve combinations of shuttle

A vision for best practice hinterland development:

- *Scheduled, reliable and secure transportation service*
- *Environmental friendly, congestion-free solutions*
- *Predictable supply chains for shippers*
- *Satisfied customers as source for port business*

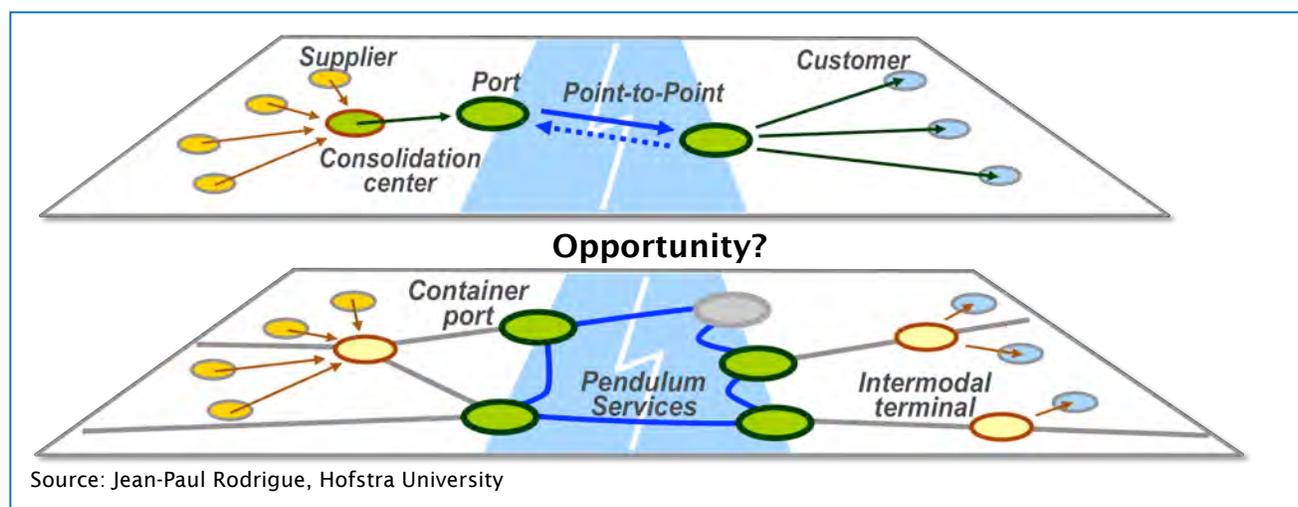
Dr. Felix Kasiske
Hamburg Port Consulting GmbH

trains, built-to-order trains and regular carload trains that can be customized to address particular shipping requirements.

For example, Polzug, a private terminal operator uses built-to-order trains and scheduled trains, thereby adapting assets to meet market demand to serve eight different terminals to/from Poland.

Dr. Jean-Paul Rodrigue of Hofstra University discussed inland terminals and some of the growth factors driving the **containerization of commodities**. These factors include: rising demand and commodity prices, fluctuations and rises in bulk shipping rates, low and imbalanced container shipping rates and available pools of empty containers for backhauls. The asymmetries between import and export-based containerized logistics create challenges for inland terminals. For example, import containers are a function of population density and are delivered to many customers on a high priority basis. In contrast, export commodities typically are sourced from relatively few suppliers and are of lower priority. Dr. Rodrigue concluded that **containerization of commodities is a powerful niche trend** and inland ports can be seen as platforms for reconciling inbound/outbound logistics.

Bulk and Containerized Commodity Chains:



Culture Shifts in Canadian Rail:

Canada's rail supply chains are inherently complex and robust, said Tracy Robinson, Canadian Pacific Railway's Vice President Marketing, Coal & Sulphur. CP currently handles 2.7 million loaded moves a year, mainly through Vancouver. **CP is one network made up of many different supply chains** (e.g., grain, automobiles, potash, intermodal, chemicals, forest products). Demand fluctuations due to economic cycles and seasonality necessitate versatility. Vancouver is evolving into a world-class supply chain where **optimization of the parts** through collaboration, joint accountabilities, measurement, infrastructure and investment **will optimize the whole**. The marketplace will demand a level of integration not seen in the past. This requires a cultural shift to achieve. Success will depend on regulatory stability, transparency, data integration, labour stability, demand predictability and investment.

Canada's Supply Chains face intense variability

- Extreme weather conditions
- Long distances
- Low population density
- Challenging geography
- Extensive portfolio of products



Best Practice: Integrated Port Clusters

A cluster is a population of independent organizations that operate in the same value chain and to some extent have a shared competitive position. Clusters are often geographically concentrated, consist of private and public sector organizations and are linked by a core specialization (e.g., Silicon Valley). A **seaport cluster** consists of firms engaged in the transfer of goods in the port and their outward distribution, including logistics activities, processing firms and administrative bodies. Port clusters exist but are not globally recognized. It is up to the port community to join forces to deliver sustainable solutions.

Research into the governance of port clusters—the process of decision-making and implementation—indicates a potential role for the port authority as “cluster manager”. Based on the existence of collective problems in the port cluster, the port authority is in the right position to help solve these problems. This goes beyond the landlord role and may involve education, innovation, marketing and hinterland access. To assume the role of cluster manager, leadership is necessary. The port must define its strategic vision and practice **good governance** through the imposition of a system of rules and responsibilities in line with the **strategic targets** of the port and **its vision** for the future (Mary Brooks, Dalhousie University).

*“Cluster groups help create a more **comprehensive and focused** strategy for integrated port and logistics activities. Clusters can convert the port authority from landlord into an economic influencer.”*

Kieran Ring, GIL

“The port is a cluster and the port authority is a manager.”

Rafael Sapiña, Valenciaport



William Yang Lei and Robin Silvester

Port clusters exist at many global ports, but at varying levels of maturity. GIL’s search for “best-in-class” designates clusters that demonstrate the spirit of collaboration, strike the right note between public and private partnerships and have developed a model that is transferable. **GIL’s international best-in-class port cluster is Valenciaport**, represented by the Port Authority of Valencia, Spain. Others on the shortlist are feature in the table below:

| GIL Shortlist of Best Port Clusters | |
|--|--|
| Americas North Los Angeles, Savannah | Europe Spain – Valencia; UK – Tees Port Germany – Hamburg |
| Americas South Brazil – Santos | Asia Shenzhen, PRC; Singapore |
| Africa Walvis Bay | Oceania Sydney, Australia; Nelson, New Zealand |

Best Practice: Measure, Monitor and Improve Operating Practices

In the globalised economy, transportation is critical to a nation's ability to trade and compete on the world stage. There are various tools available to measure progress and help create the conditions for success and every supplier in a supply chain has a different set of metrics to meet its own goals. The Asia Pacific Gateway Performance Table is a federal initiative launched by Canada's Minister of Transport to establish a special performance focus group to develop a common set of appropriate metrics. The aim is to "be as transparent as possible in the measurement, so you know what you're looking at." Setting **common performance goals** and instituting good governance and accountability to the goals will lead to a better return on investment.

Transport Canada is undertaking an integrated research initiative devoted to developing a set of supply chain metrics that can be used to improve supply chain reliability and competitiveness. The **Fluidity Project** is designed to measure the total end-to-end transit times of containers on strategic origin-destination markets from overseas ports of loading to North American inland markets.

This innovative project is first examining inbound Asia-Pacific gateways and corridors and will be expanded to analyze inbound Continental and Atlantic gateways and corridors (Phase 2), inbound North American gateways and corridors (Phase 3) and outbound bulk commodities (Phase 4). The outcomes will include: time series data on transit times on major corridors, measuring the reliability of Canadian gateways, empirical evidence to support policy decisions and an ability to benchmark Canadian supply chains at a continental scale. It is also possible at some point that cost data could be used to populate the supply chain mapping exercise.



"We need objective fact-based metrics to build an empirical case about Canada's supply chain competitiveness and to market Canada's gateways efficiently."

Daniel Olivier, Transport Canada

Best Practice: The Workforce Dimension

Initial research by the Asia Pacific Gateway Skills Table (APGST) indicates that in Canada's Asia Pacific Gateway the market is adapting to labour shortages and the focus for most occupations will shift from recruitment to skills. There will be a greater reliance on technology and workplace innovation resulting in a focus on: up-skilling, new skills and capabilities, and entrepreneurship. There is a need to create a culture of innovation and entrepreneurialism within gateway workplaces. As Oksana Exell, CEO of the APGST, explained when discussing entrepreneurship, "we are looking at the word in the broadest sense: initiative, creativity, flexibility, and adaptation." An industry cultivating these skills is an industry ready to perform.

"Labour is not often on the agenda when thinking about the equation, but it should be one of the pillars as a genuine stakeholder."

Jordan Cowman, Akin Gump Strauss
Hauer & Feld LLP

Innovation and technology tend to be created in industry silos where each part of the supply chain operates independently of the others. Good opportunities for application in Canada's Pacific Gateway include: truck operations, integrated reservation systems, gate automation and biometrics, and greening the gateway.

International best practices suggest that technology should not be viewed as job cutting. Rather, **the objective should be to identify the processes and technologies that can be applied to grow the opportunities** to produce wider benefits for all stakeholders. With more complex processes, people need to be viewed as problem solvers with greater individual responsibility for the overall success of a terminal/operation.

Pressure makes diamonds or dust

When looking at the opportunities for growth and change in the workforce landscape in Canada, there is a clear need for a culture shift to encourage a new dynamic and new relationships. Unfortunately, there are increasing pressures from internal and external sources and negative press that it is affecting our region. There is no net benefit to having stories about potential labour disruptions. However, if we can use these pressures to stimulate change and create our diamond, now is the opportunity.

Ultimately, the gateway is an integral part of our national economy. It is the backbone of Canada's prosperity and Canadians' standard of living. It is more than just a job and everyone needs to feel connected to the greater good and purpose.

A President was visiting NASA headquarters and stopped to talk to a man who was holding a mop. "And what do you do?" he asked. The man, a janitor, replied, "I'm helping to put a man on the moon, sir."

Lessons from Australia & Hunter Valley Coal:

- Predicted freight demand, plus the need for improved productivity and social/safety outcomes, the impetus for ending 'silo' approach and pursuing an integrated strategy
- a National Ports Strategy and a National Freight Strategy as key features
- Supply chain capacity constraints best addressed by a cooperative approach involving all key service providers in the chain
- Agreements to minimize losses through capacity constraints and ship queues had to demonstrate efficient management of the supply chain end-to-end in order to gain approval from the Australian Competition and Consumer Commission, which promotes competition and fair trade and regulates national infrastructure services



Thank You!

WESTAC and the GIL wish to thank the sponsors, the speakers, many who traveled great distances to attend, and the delegates for supporting this event as we continue to seek new and innovative ways to promote supply chain excellence.