

# CONNECTED, INTELLIGENT & RESILIENT: A SUSTAINABLE NEW SUPPLY CHAIN LANDSCAPE

**"THE SUSTAINABLE FUTURE WE DESIRE  
REQUIRES THE NEW TYPE OF CONNECTIVITY."**





**Rene Alvarenga,**  
Director of Execution and  
Visibility at Kaleris

Today's world still reels from the aftershocks of a pandemic that turned everything upside down. Supply chain bottlenecks and scarcity of critical goods are driving global inflation to levels we haven't seen in decades. Political unrest, labour challenges and natural disasters compound the challenges. Through these complicated, muddy waters, one thing is crystal clear: more sustainable methods of transportation are a necessity.

When we say sustainable, we're applying the broadest definition of the word, conveying the idea of being "able to be maintained at a certain rate or level," according to the Oxford dictionary. This definition encompasses considering the environment in supply chain execution, because operations that reduce environmental impact are the only way forward. For operations to be truly sustainable, it must be possible to keep them going no matter what comes. Herein lies the greatest challenge for the supply chain: with so many interdependencies creating such a high degree of complexity, how can we ever hope to manage and control all of it?

The question is far from rhetorical. The truth is, we can do far more than manage it. We can optimise it, creating the next best plan, all the time. Achieving this level of optimisation will require a level of connectivity among players in the supply chain that is in the early stages of becoming an industry norm. This level of connectivity is a natural progression as our global economy realises the benefits of connecting

## **"THE KEY TO CREATING A MORE RESILIENT SUPPLY CHAIN IS THE CONNECTION BETWEEN EXECUTION APPLICATIONS AND VISIBILITY SOLUTIONS."**

not just information, but with each other as partners.

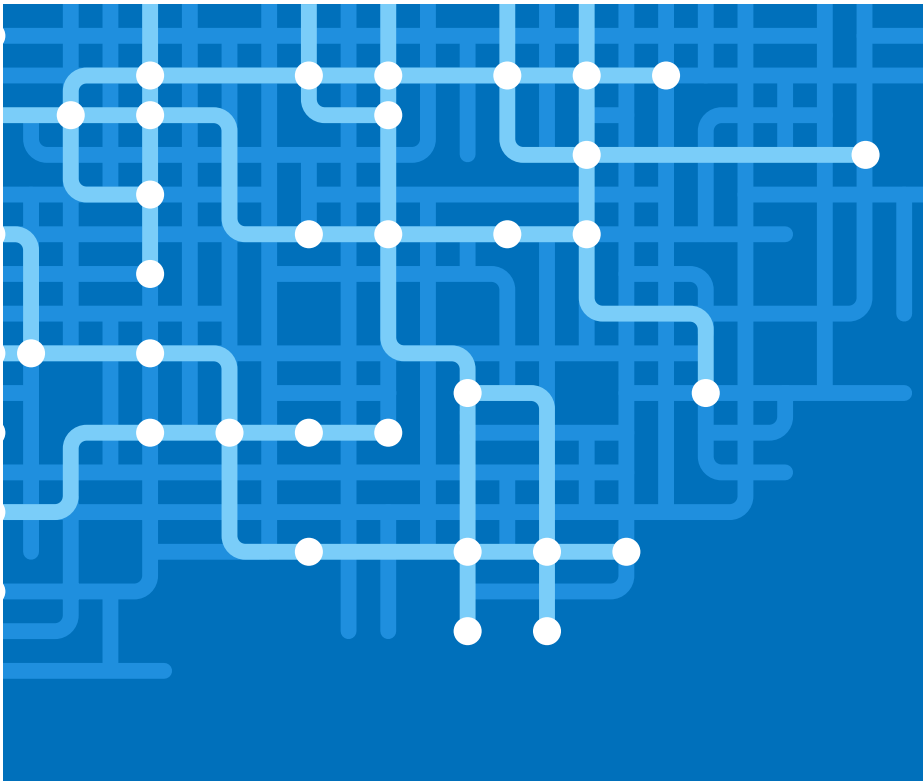
The key to creating a more resilient supply chain is the connection between execution applications and visibility solutions. After all, you can't measure what you can't see. Or in supply chain terms, you can't act on what you can't see. However, the knowledge of real-time status alone, even over time, is simply that – knowledge. It is insufficient to solve operational challenges. With sustainability as our North Star, real-time status only gets us a third of the way there. We realise the rest of the picture when we can take action based on those real-time insights.

For example, by connecting visibility and execution technology, shippers can track their cargo and see movements as they happen. Leveraging the integration with day-of-operations execution solutions at the terminal, shippers can proactively carry out actions to ensure they are prepared to collect a container as soon as it is ready. Terminals can increase productivity by clearing containers and general cargo more quickly.

As the global supply chain increases in complexity, only 6 per cent of enterprises indicate they

have full visibility over their supply chain, according to a GEODIS Supply Chain Worldwide survey. Disconnected workflows, multi-mode environments, multi-party dependencies and data gaps limit operational visibility at execution nodes and result in inefficient operations and higher costs for shippers, carriers, terminals, railroads, and asset owners. Supply chain technologies are equally fragmented. From optimisation engines and mobile solutions, to routing tools, control towers and dispatch software, to billing and analytics, this myriad of disconnected technology is not well suited to solve connected problems. And it compounds the challenge of serving heightened consumer expectations in the face of ever-shifting market pressures caused by everything from geopolitical challenges to natural disasters.

Connectivity unlocks new value for shippers, carriers, terminals, railroads and asset owners through significant efficiency and productivity gains. Each group can in turn pass this productivity through to its customers, delivering better outcomes for everyone through a connected, visible,



sustainable supply chain. Bringing together execution and visibility solutions is the key to a resilient supply chain, because knowing the real-time status of shipments as they move through each node has a powerful downstream effect. This insight optimises all the operations and modes that follow.

By consolidating supply chain execution software across nodes and modes, into one place, such as a connected platform, it can leverage operational data directly from multiple connected systems, including yard management, transportation management, maintenance and repair, port and terminal, and vessel operations to eliminate data gaps and dark spots within pivotal execution points. Connecting that operating

data to workflows within the execution ecosystem results in high-value outcomes for shippers, carriers, terminals, railroads, and asset owners, including reduced non-performance time, increased operating visibility to shipment status and operating events, and improved planning and scheduling to enhance efficiency and utilisation.

Imagine a world where shippers gain real-time visibility of cargo status, enabling them to drive predictable, timely operations and take prompt action to reduce dwell times, demurrage, and impediments. Terminals can reduce rehandling moves, container dwell time, and truck and rail turnaround times to increase productivity. Carriers and asset owners can

**“KNOWING THE REAL-TIME STATUS OF SHIPMENTS AS THEY MOVE THROUGH EACH NODE HAS A POWERFUL DOWNSTREAM EFFECT.”**

increase asset maintenance and performance, maximise revenue per trip, reduce operational cost, and deliver better service to shippers.

While infrastructure investment and near-shoring will alleviate some supply chain risk in a post-pandemic world, it will not be enough to make this imaginary world a reality and deliver on a sustainable future. The sustainable future we desire requires the new type of connectivity. It requires the power of technology to connect execution and visibility capabilities and shippers, terminals, carriers, railroads, and inland facilities all in one place. With intelligent data insights from a connected and visible network of shipping lines, marine terminals, railroads, drayage and inland facilities, the resilient, sustainable future is within our grasp.

#### **ABOUT THE AUTHOR:**

Rene Alvarenga is the Director of Execution and Visibility at Kaleris. He is currently working on further enhancing connectivity, between execution nodes in the supply chain, such as marine terminals, shipping lines, inland yards and distribution centers, so that downstream shippers and cargo owners can optimise their operations.

#### **ABOUT THE ORGANISATION:**

Kaleris is a leading provider of cloud-based supply chain execution and visibility technology solutions. The company addresses the dark spots and data gaps that cause friction and inefficiency in the global supply chain by consolidating supply chain execution software assets across major nodes and modes.

Many of the world's largest brands rely on Kaleris to provide mission-critical technology for yard management, transportation management, and maintenance & repair operations, as well as terminal operating systems and vessel solutions from its premier Navis brand. [www.kaleris.com](http://www.kaleris.com)