

The background of the slide is a dark blue, semi-transparent image of a shipping yard. It shows stacks of colorful shipping containers (blue, red, green, yellow) and a forklift in the center. Several thin, wavy lines in blue, red, green, and yellow cross the middle of the image.

# CASE STUDY: SUSTAINABILITY BEST PRACTICES FOR KEY AREAS OF A SUPPLY CHAIN



# We love to put **order** in your chaos.

Morai Logistics Inc. is a 3rd party logistics provider with an operating agency agreement representing Mode Transportation. We are a powerhouse logistics team based in the Greater Toronto Area and do business throughout North America, including Mexico. Our team is dedicated to our terrific clients and we strive to take the chaos out of your supply chain. We are always on the lookout to do exceptional work with remarkable people and companies!

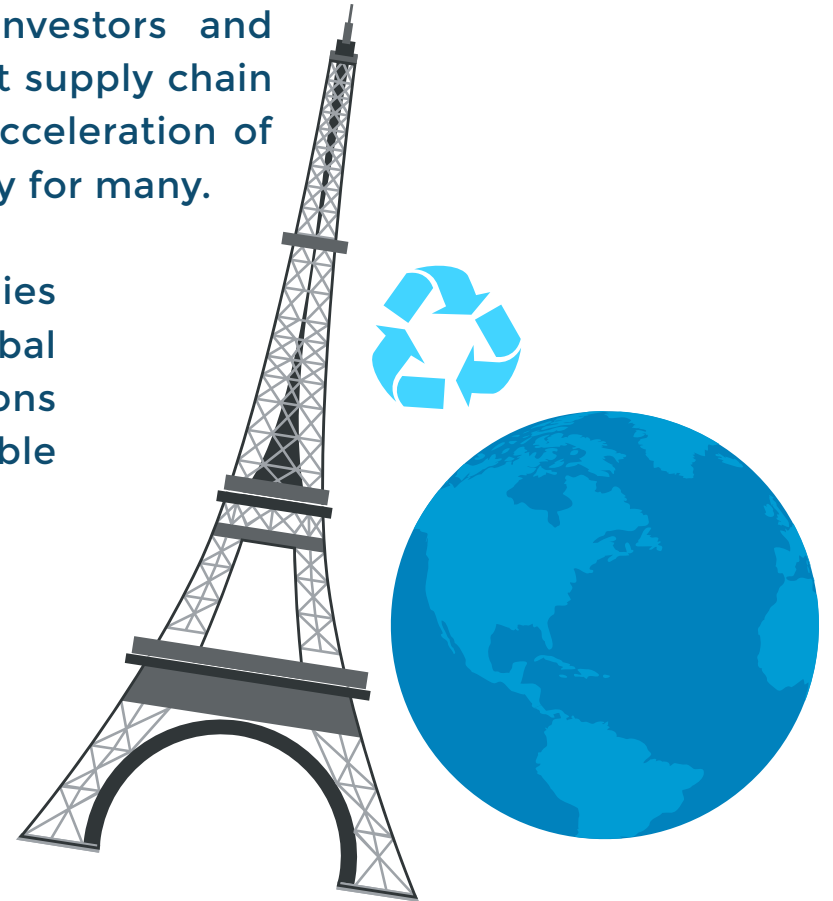


# Introduction

Over the last decade, consumers, shareholders, investors and nonprofit's have become increasingly concerned about supply chain sustainability. Several high-profile disasters and the acceleration of global climate change has made sustainability a priority for many.

National governments and international governing bodies are also showing their support. The UN's 2013 Global Corporate Sustainability Report looked at the "actions taken by companies around the world to embed responsible practices into their strategies, operations and culture."

**The largest effort to date is the Paris Agreement, or Paris Accord.**





## The UN agreement had 195 countries sign the Paris Agreement in December 2015.

Member countries agreed that global warming is a threat and pledged to stop global surface temperatures from rising 1.5 degrees Celsius. Experts warn that if temperatures go over 2 degrees Celsius, it would lead to catastrophic and irreversible consequences for the environment.



Unfortunately, the US pulled out of the agreement in 2017. The White House stating that such an agreement hurts their nation's economy and sovereignty. While this action has been discouraging, many businesses have been doing their part to continue to further sustainability efforts.



In this e-book, we'll be exploring sustainability best practices for two key areas of a supply chain, warehouse and distribution, and transportation.

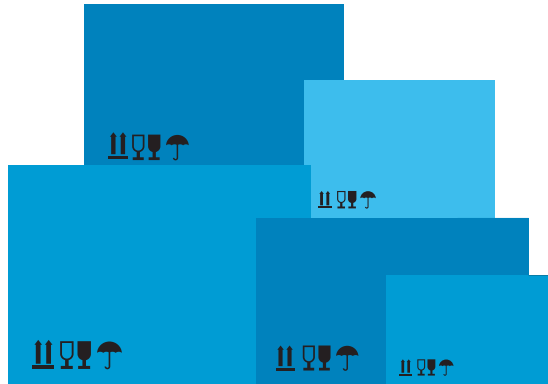


FROM **ORIGIN** TO **SUCCESS**

# WAREHOUSING AND DISTRIBUTION



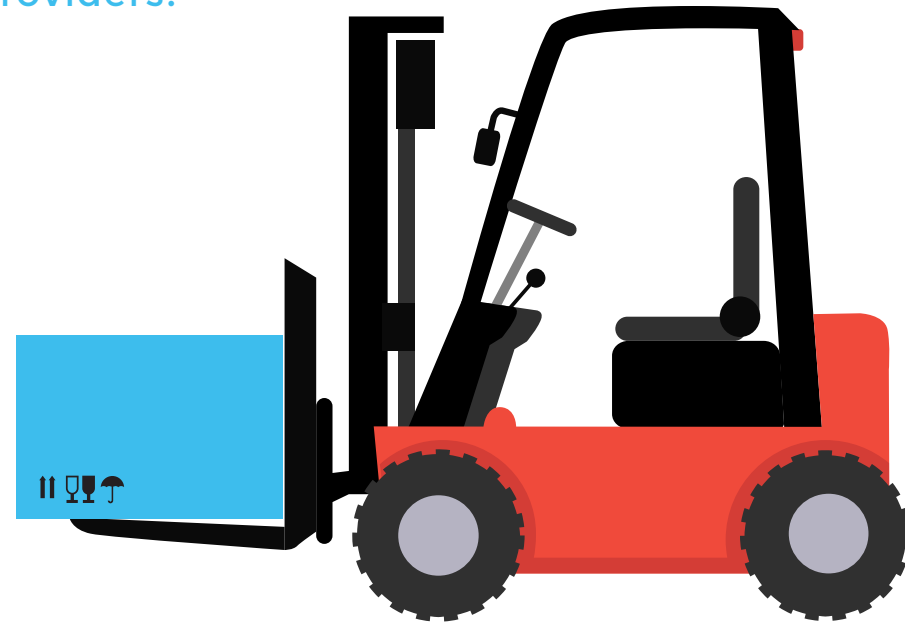




Warehousing and distribution is a fast-growing global industry. In the US alone, over 600,000 people work in warehousing with a further 60,000 employees involved in order fulfillment. That adds up to a nearly \$30 billion industry according to [globeconfreight.com](http://globeconfreight.com).

The importance of this industry is why green solutions were highlighted at ProMat 2017, a material handling and logistics event with over 850 exhibits from leading solution providers.

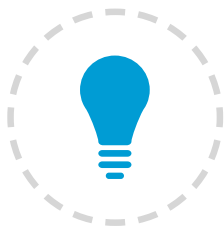
One method of reducing carbon emissions that was shown at the event, is for forklift fleets to be hydrogen-powered. Such vehicles produce zero carbon emissions. Reduced travel time to charge these vehicles, saved space and longer lasting batteries, are all additional benefits that Air Liquide, a Canadian company specializing in supplying the hydrogen and delivery systems, highlighted.



Other presentations at the event saw innovative solutions for cardboard reduction, energy saving lights and methods to maximize usable inventory space.

Businesses that want to improve their existing warehousing and distribution structures should read this [industryweek.com](https://www.industryweek.com) post. It gives the following tips:

- Integrate energy conservation strategies in the warehouse to reduce reliance on greenhouse gas-producing sources.
- Set targets for reduction of energy consumption and conduct annual audits to ensure progress.

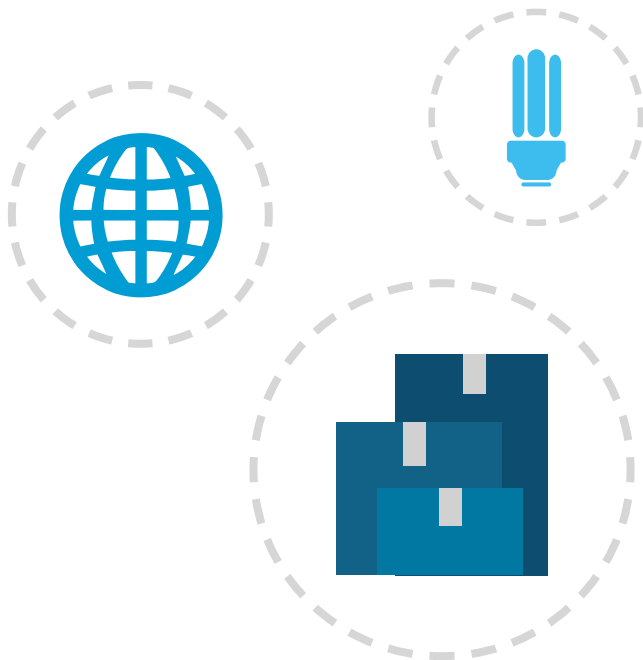


- Use low-voltage lighting and install motion sensors or timers on lighting systems.
- Conduct regular facility inspections to identify opportunities to upgrade the building envelope (i.e., roofing, doors and windows) or to repair leaking water pipes and irrigation systems.

- Integrate real-time inventory visibility in the warehouse to reduce unnecessary trips and wasteful inventory obsolescence.



- Create a closed-loop system for reporting and reconciling inventory levels with front-office.



- Optimize distribution networks to require fewer trips, less idling and lower overall delivery costs.
- Establish regional distribution centers to serve customers based on demand.
- Optimize and consolidate routes to reduce the number of loads overall.



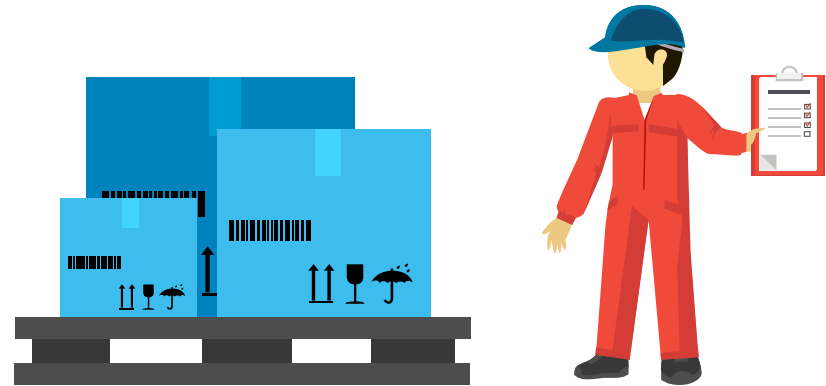


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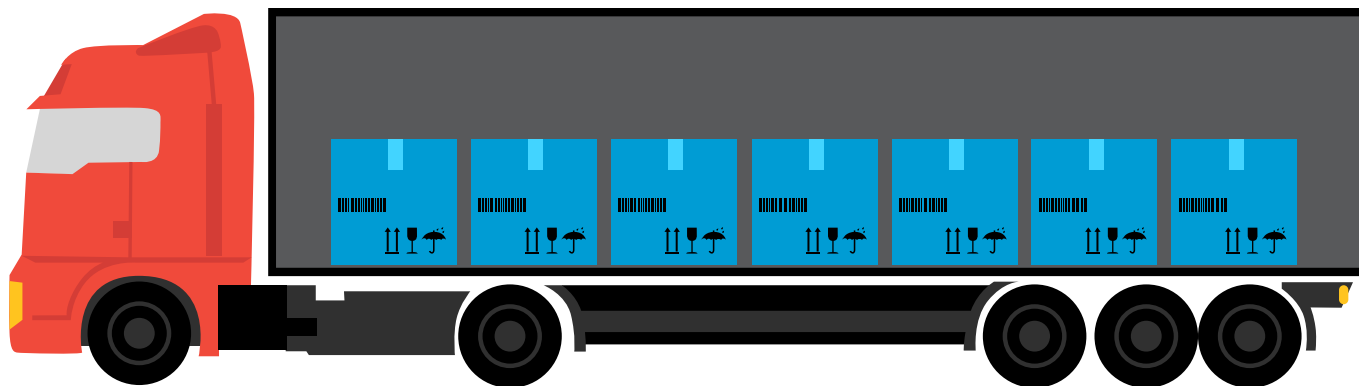
# TRANSPORTATION



Tying into distribution, transportation presents another big opportunity for supply chains to go green. Ground-based transportation currently accounts for 70% of the transportation sector's total emissions. This is because trucking, especially in developing areas, is currently very inefficient.



Truck shipments sent out with only partial or half-loads, traffic congestion, and wear and tear on the truck themselves contribute to this.

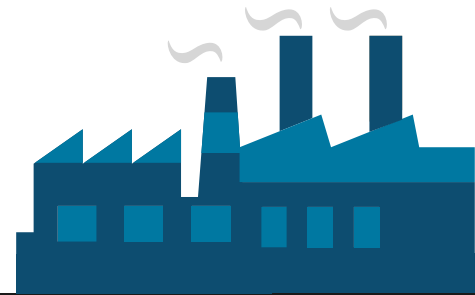




Minimized transportation miles should be the first step toward improving sustainability. **Many products are made by shipping raw goods across the world and having the finished product shipped back to sell.** This process produces a lot of emissions and waste.

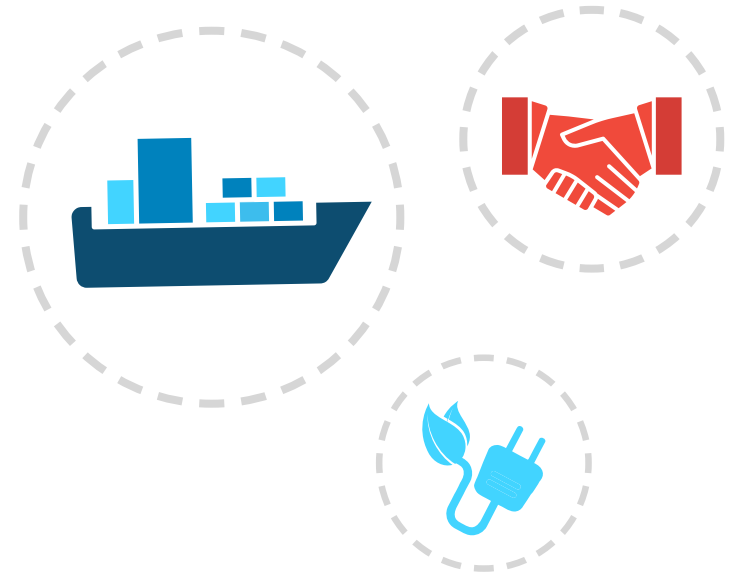
An energy-saving solution would be to nearshore or reshore production, thereby drastically reducing the distance products need to travel. Consolidation of low and high-density freight onto the same vehicle is another solution.

**“For example, combining products that are small and heavy together with bulky but lightweight products – thereby optimising the truck load in relation to its weight capacity, whilst maximising the use of the vehicle space. Think of a crate of pillows versus a crate of ball bearings; or 10 kg of bowling balls versus 10 kg of ping pong balls”** says Mark Miller, writer for KoganPage.



Using more fuel-efficient trucks and adopting software to plan smarter routes are other examples. Using more fuel-efficient trucks and adopting software to plan smarter routes are other examples. **IndustryWeek.com offers additional tips to improve a transportation network so it's eco-friendlier:**

- Align inbound and outbound shipments to reduce carbon emissions with less fuel and speed cash-to-cash cycles.
- Connect in real-time to customers to synchronize returns with maximized fleet use (i.e., backhauls).
- Coordinate supplier shipments to consolidate freight costs and negotiate better rates.
- Automate transportation management systems.



- Switch to an electronic freight, bill, audit and payment process to reduce or eliminate paper transactions.
- Synchronize with warehouse operations to extend efficiency.
- Control routes, fuel consumption and idle time.
- Enhance driver training with courses that improve driving skills and performance, and teach drivers simple techniques to reduce fuel consumption.



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**EVERY BIT HELPS**



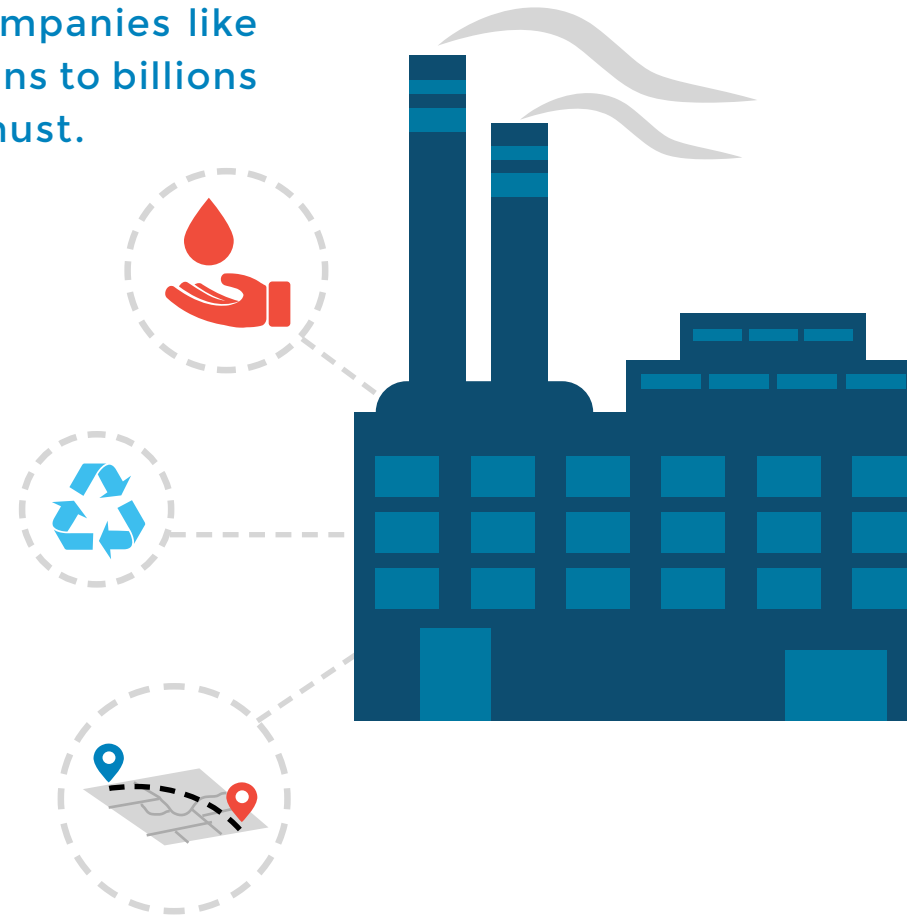


A misconception among many businesses is that they need to be big to adopt a sustainable model. While its true companies like McDonald's, L'Oréal and Apple are all spending millions to billions on green technology, that doesn't mean everyone must.

Smaller supply chains can take gradual steps towards building a more socially, economically and environmentally aware supply chain. Beginning the process is as easy as mapping the existing supply network, identifying inefficiencies and eliminating them. A simple packaging change or better recycling process are examples. Every business has ways to run quicker, cleaner and better.

As Inc.com writer Gabrielle M. Blue put it,

**“Building a sustainable company is a task that must be taken on from all sides. The collective and collaborative efforts of the supply chain industry, with the support from the government, is crucial.” What happens to the environment affects everyone, which is why we all need to do our part to protect it.**





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